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ARMED FORCES

'TRUD' ON CONCERN FOR SERVICEMEN'S CONDITIONS

PM121209 Moscow TRUD in Russian 18 Dec 82 p 2

[TASS-attributed article by Col Gen I. Golushko, chief of staff of USSR Armed Forces Rear Services: "Concern for the Everyday Life of the Motherland's Defenders"]

[Text] The Communist Party and the Soviet Government show constant concern for the Soviet people's happiness and well-being and the creation for them of the widest possibilities for creative labor, study and recreation. Comrade Yu. V. Andropov, general secretary of the CPSU Central Committee, emphasized in his speech at the CPSU Central Committee November (1982) Plenum that "concern for the Soviet people, their working and everyday living conditions and their spiritual development remain a most important party policy guideline." The organization of everyday military life, whose specific nature lies in its total subordination to the task of consolidating the army and navy's combat readiness and combat capability, is also being implemented in the USSR Armed Forces from these standpoints.

Practice has demonstrated that all elements of everyday military life exert direct influence on personnel morale. Therefore, we must constantly keep within our field of view the way in which servicemen's recreation and their food, clothing and medical provisions are organized, in whatever conditions they are living and carrying out their official duties.

We can boldly assert that today the majority of military economic installations conform wholly to modern educational, cultural and aesthetic requirements. Our military settlements have in many cases been modernized and have everything necessary for soldiers' and sailors' life, study and recreation. The old notion of the "barracks" is gradually being taken over by a new one which reflects the positive changes in the USSR Armed Forces.

Striking changes have taken place, of course, not only in the image of soldiers' quarters. In recent years there has been a significant improvement in the serviceman's image too. His food has become richer and more varied. The supply service's material and technical base is developing. The old military messes are being reconstructed and are becoming more attractive and comfortable. This promotes servicemen's aesthetic education and the inculcation of high standards.

Military agricultural enterprises help to improve the quality and variety of servicemen's diet and provide an important supplement to the fixed ration. Pacesetting military collectives, showing creativity and initiative, are producing yearly ration supplements of more than 10 kg of meat for each serviceman right now in their kitchen and galley plots. Some units are meeting the personnel's half-yearly and even yearly requirement for meat, milk, eggs and other produce.

In short, servicemen's feeding is improving year by year. But our Soviet serviceman must not only be given appetizing and sufficient food but must be well-clothed too. Constant concern is also shown here. Suffice it to say that from this year on NCOs and enlisted men will be allocated a number of items of military property according to an increased norm. The clothing service is continuing the work of improving its quality. The testing of the new field clothing meeting modern requirements is essentially complete. It has been approved in the forces and is acknowledged to be more suitable for operations in the country's various climatic regions. Special electrically-heated clothing, for example, will be issued to tank troops in the near future. Tests show that this will create normal conditions for crew operating in low-temperature conditions.

A great deal of work has also been carried out on improving military footwear. Industry is already producing warm boots from synthetic felt with thermal characteristics in no way inferior to traditional felt boots. In the summer of last year the testing of soldiers' synthetic leather boots made from a cotton-"lavsan" based leather substitute considerably more durable than previous types was completed.

A not inconsiderable amount has been done in the military districts and in the navy to create within units well-equipped consumer service rooms, storerooms for keeping servicemen's personal effects and drying rooms.

Soldiers' (sailors') consumer service combines have come to play an ever-increasing role. They provide servicemen with a complex of services and permit whole subunits to be served quickly and promptly.

The safeguarding of Soviet servicemen's health is a subject of particular concern to the army and navy. Positive changes in the work of the medical service have now taken place. Its material base has considerably improved. Dozens of new medical centers and sick bays have been constructed to replace the old ones. They provide the necessary conditions for thorough investigation and treatment of patients in well-equipped laboratories and functional diagnosis and physiotherapy rooms now in place and operating. The running of the servicemen's health center system has become more organized, and the effectiveness of preventive work has risen.

The measures carried out have led to a further improvement in servicemen's health. The overall sickness rate in the USSR Armed Forces over the last 5 years has fallen by 17.5 percent, labor time lost by 7 percent and discharge through illness by 31 percent.

At the present time the standard of work in military hospitals has risen considerably. The examination and treatment of patients in them is carried out at the level of modern medical achievements.

Military trade also makes its contribution to the organization of everyday military life. Now, even in the most far-flung garrisons, you will find stores using progressive forms of selling goods in an effort to meet servicemen's needs in full. But it would be a mistake to think that the main emphasis is placed on the organization of everyday military life in permanent conditions. No less concern is shown for it during exercises, field training or voyages. For this purpose the rear services have at their disposal modern technical facilities which help both to provide servicemen with hot food with the prescribed frequency and to organize bathing facilities for them as well as setting up facilities for mending and cleaning clothing. In short, servicemen's everyday life in the field meets those high demands which are made on its organization today.

However, the soldier in the field is not a guest. He has to know himself how to cook his dinner in a mess tin, make himself a comfortable place to rest and dry himself by a camp fire. Frontline soldiers will remember how important a soldier's skill in these matters is.

Everyday living conditions also have a considerable influence on provision for servicemen's leisure. And it is difficult to overestimate the importance of meaningful cultural recreation for fruitful combat study.

In recent years soldiers' tearooms and cafes have been widely developed. Comfortable, colorfully decorated premises lend themselves to a relaxed atmosphere and the exchange of confidences about life, service and plans for the future over a cup of tea.

I should like to mention, incidentally, that the servicemen themselves do a great deal to organize their everyday life. They participate energetically in the design of those very same soldiers' (sailors') tearooms, combines and consumer service rooms and storerooms for keeping their personal effects. In short, in this important matter they are the pioneers of many fine undertakings.

The examples cited gives a clear picture of all the complex work done in the USSR Armed Forces to improve servicemen's working, training and cultural recreation conditions. However, life advances, and the demand made the servicemen's everyday living conditions increase. We take them into account and bear in mind that concern for improving the troops' everyday life is a matter of great importance. To tackle this task skillfully and with party principledness means to be really concerned about the consolidation of our glorious armed forces' combat might.

CSO: 1801/125

ARMED FORCES

'KRASNAYA ZVEZDA' ON IMPROVING WORK WITH LETTERS

PM111431 Moscow KRASNAYA ZVEZDA in Russian 18 Dec 82 Second Edition p 1

[Editorial: "Pay Attention to Each Letter"]

[Text] The preparation for the 60th anniversary of the USSR's formation--a portentous event in the Soviet people's life--has been marked by high patriotic enthusiasm among urban and rural working people and army and navy servicemen and by an increase in their professional and political activeness. Evidence of this is provided by the letters received by party and soviet organs and military units and institutions. The party regards them as an important channel of communication with the masses.

Vivid confirmation of this was provided by a recent CPSU Central Committee Politburo session's examination of the question of working people's letters sent recently to the CPSU Central Committee and the USSR Supreme Soviet Presidium. The press report on this has been perceived by the people as a new manifestation of the Communist Party's concern for Soviet people and for their needs and aspirations and as the profound deference of the party and government toward public opinion.

The CPSU Central Committee Politburo noted that working people's letters express the broad masses' unanimous support for the CPSU's domestic and foreign policy and their profound interest in strengthening our motherland's economic and defense might and in consolidating peace and international security.

These thoughts and concerns also permeate the letters of Soviet servicemen and Soviet army and navy workers and employees which have been received at USSR Defense Ministry main and central directorates, military councils, political directorates of branches of the armed forces, districts, groups of forces and fleets, headquarters, political organs of units and formations and at the editorial offices of military newspapers and journals. They express the profound interest of military servicemen and army and navy workers and employees in further increasing vigilance and combat readiness in a complex international situation and in consolidating the degree of organization and regulation order and in improving labor productivity and work quality at military enterprises and construction projects.

The party instructs cadres to view letters as one of the most confidential and valuable sources of information. They make it possible to be better oriented in any situation, to see shortcomings more clearly and to take correct decisions.

The CPSU Central Committee Politburo notes the great significance of a responsible and genuinely party-minded attitude to working people's letters and proposals for the cause of further developing Lenin's principles of democracy. It is incumbent on every party and soviet worker and every enterprise and institution leader to view this work as his duty to the people and the party.

In fulfilling the 26th CPSU Congress' demands on the strict observance of Lenin's principles of work with working people's letters and proposals, commanders, political organs and staffs have begun to treat the examination of letters, proposals, statements and complaints from military servicemen, members of their families and Soviet army and navy workers and employees with a greater sense of responsibility.

At the same time, one cannot fail to note that there are still serious shortcomings and omissions in work with letters and in organizing the reception of petitioners [posetitel]. Some commanders and chiefs display a bureaucratic attitude toward letters and proposals, do not observe the set time limit for examining them and give purely formal replies instead of taking effective measures on the essence of a question. Evidence of this is provided by the letters received by KRASNAYA ZVEZDA and other military publications.

Thus, in April this year, Private F. Bobylev asked the editorial board of the journal ZNAMENOSETS to explain whether or not a vehicle inspector had treated him correctly in a particular instance. The editorial board sent the letter to the unit where Captain Yu. Truvinov is responsible for work with letters with the request that the facts be checked and the result of the check be reported. The letter was not recorded at the unit headquarters but sent to Private Bobylev's subunit. Eventually it was forgotten and in June the journal's editorial board reminded the unit command of its request. Like the first time, the letter was not recorded and no answer was given. In October the journal's editorial board was forced to turn for help to the military procurator's office which carried out a check and exposed quite a few violations of the set procedure for work with letters within the unit.

The party demands a principled and exacting approach to the assessment of the actions of officials whose attitude is bureaucratic and too formal and whose reaction to the negative instances cited in letters and statements is not sharp enough. The party must be as strict as possible with those who speak but do not act, who do not carry out previous promises and who force people to appeal to higher authority.

Personal contact between commanders and chiefs, on the one hand, and military servicemen, members of their families and Soviet army and navy workers and employees on the other is of exceptional significance in the matter of improving work with letters and of the prompt and fair resolution of complaints and statements. Every military unit, establishment, academic institution and enterprise of the Ministry of Defense must create all the requisite conditions to enable a petitioner to be received and for them to talk with those officials

authorized to resolve cases in point. Commanders and chiefs are called upon to analyze letters and statements comprehensively, to highlight the main problems raised in them, to take the appropriate measures and to implement strict control over their implementation.

Tasks of further improving work with letters require constant attention on the part of commanders, political organs and party organizations on this important area of work, the persistent elimination of the factors which give rise to justified censure and complaint and the intensification of legal propaganda. The military press is called upon to make a great contribution to this matter. Newspapers and journals must highlight in broad terms the positive experience of work with letters and to criticize those who display indifference and a bureaucratic attitude to people.

Every letter is an important human document which must be treated in a responsible and truly partyminded way.

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BRIEFS

MILITARY JOURNALIST SEMINAR--A conference seminar of KRASNAYA ZVEZDA permanent correspondents representing the newspaper in the military districts, groups of forces, in the fleets and among branches of the armed forces has been held. The conference discussed the results of the permament correspondents' work in 1982 and the tasks for the new training year arising from the decisions of the 26th CPSU Congress and the CPSU Central Committee November (1982) Plenum, the results of the conference of Soviet Armed Forces leading personnel and the requirements of the USSR defense minister and the chief of the Soviet army and navy main political directorate. The participants in the conference-seminar were addressed by Army General V. F. Tolubko, commander in chief of USSR Strategic Rocket Forces and USSR deputy defense minister; Admiral of the Fleet of the Soviet Union S. G. Gorshkov, commander in chief of the navy and USSR deputy defense minister; Marshal of Engineer Troops N. F. Shestopalov, USSR deputy defense minister for cosntruction and billeting of troops; Army General A. M. Mayorov, first deputy commander in chief of the ground forces; Col Gen S. F. Romanov, chief of the main staff of the Air Defense Forces, and Marshal of Aviation G. P. Skorikov, chief of the air forces main staff. A lecture on the international situation was delivered by R. V. Borisov, responsible associate of the USSR Defense Ministry. There was a meeting between the journalists and the writer Mikhail Alekseyev. The tasks facing military journalists were dealt with in detail in a speech by Army General A. A. Yepishev, chief of the Soviet Army and Navy Main Political Directorate. [Text] [PM141201 Moscow KRASNAYA ZVEZDA in Russian 18 Dec 82 Second Edition p 3]

CSO: 1801/125

GROUND FORCES

MOTORIZED RIFLE UNITS: PREPARATIONS FOR SUMMER TRAINING

Moscow KRASNAYA ZVEZDA in Russian 4 Jun 82 p 1

[Article by Maj M. Ziyemin'sh, Red Banner Far East Military District: "The Search Continues"]

[Text] No one who visits the Nth Motorized Rifle Regiment these days can fail to note the good changes which occurred here during the period of preparation for summer combat training. The training material and technical base was reequipped and new training equipment appeared. The equipping of the tactical field permits conducting lessons with motorized riflemen, tankmen, and artillerymen. Tactical training subjects can now be worked out in combination with engineer and reconnaissance training and the defense against weapons of mass destruction. On the moving target gunnery range for infantry fighting vehicles [IFV], the training sites are arranged in such a way that the leader of the exercise has the possibility to keep everything under his control. Each operator has reserve target units, spare sensors, fuses, and "flicker devices."

Behind all this can be seen the striving of the regimental personnel to struggle persistently in the summer training period for the quality and effectiveness of each training hour and training minute and to accomplish completely the obligations in honor of the 60th anniversary of the formation of the USSR. This is also evidenced by the results of the lessons conducted in the first days of summer training. For example, in the grading list for tactical training in the platoon commanded by Senior Lieutenant N. Kramar', only good and excellent grades appear. How was the officer able to achieve this?

According to the admission of the platoon leader himself, this is to the great credit of the young company commander, Senior Lieutenant L. Stukanev. He obtained much that was useful at commanders' assemblies and now is striving to transfer this knowledge to his subordinates.

There are many officers in the regiment who were recently appointed to the post of subunit commander. Naturally, for the present their experience is insufficient. It was decided to allot experienced regimental staff officers to each such subunit. The duty of each of them is to render practical assistance to the commander and to all personnel in the accomplishment of training plans and the obligations which have been assumed. Another thing has great importance here: in the regimental headquarters, they always know how the accomplishment of the training plan is proceeding in various

subunits, the quality with which one or another subject has been worked out, and what shortcomings are present in the training of specialists. Possessing detailed information, it is easier for the staff to plan measures to eliminate shortcomings in the subunit where the failure has been noted.

Instructive is the work style of a regimental staff officer, Major A. Postnikov, who heads the unit methodological council. He tries to work with young officers individually, enriching them with the knowledge of military pedagogy and psychology and methodological skills. And, as a rule, success is attained.

However, it would be incorrect to assert that everything is going smoothly in improving the methodological skill of commanders in the regiment. This was disclosed as early as in the course of the first lessons. Let us say, Lieutenants L. Necheporuk and K. Puzikov conducted lessons with subordinates at a low methodological level and, in particular, did not consider the feature that not all soldiers are identically trained and that sergeants whom the officers actually pushed aside from the accomplishment of their service duties for the time of the lessons were inactive.

And here is a fact of another type. The commander of one of the companies was absent from lessons on the first day of summer training. The organization and conduct of the lessons lay completely on the shoulders of a young platoon leader. Of course, the officer tried to accomplish the duties assigned to him conscientiously. But conscientiousness alone is insufficient in such cases. Experience is needed. And this is just what the officer lacked. And why, let us ask, couldn't the battalion commander or the chief of staff who, as was learned later, were engaged with matters which were not as urgent come to the company on the eve and on the day of the lessons to help organize the training process?

With each passing day summer combat training is picking up speed and the heat of the competition for a worthy greeting for the 60th anniversary of the USSR's formation is increasing. This, of course, pleases the officers of the regiment. But they are far from the thought that all reserves for raising the quality of the training process have been put into action. The search in this direction is continuing.

6367
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COLONEL GENERAL POPKOV ON DISCIPLINE, INDIVIDUAL WORK

Moscow KRASNAYA ZVEZDA in Russian 4 Jun 82 p 2

[Article by Col Gen M. Popkov, member of military council, chief of Ground Forces Political Directorate: "Discipline and Individual Work"]

[Text] The Nth large unit has been living for more than four years without accidents. High results in combat training are also stable here and the ranks of the masters of military affairs are growing. At the basis of these successes is the purposeful and painstaking organizational and indoctrinational activity of commanders, political officers, staff officers, and party and Komsomol organizations. One of the indispensible elements of this activity and the entire system for the training and indoctrination of the personnel is attention to a specific person and the striving of any leader, whatever post he may occupy, to see before him not the mass of subordinates as a whole but specific personalities and to solve problems by appealing to the consciousness of a person and to his mind and heart.

The intensification of individual work in which the former chief of the division political department who was recently promoted to a higher post, Colonel A. Didenko, provided a personal example was conducted in the large unit in many directions.

The value of the experience accumulated here is first of all in the fact that all this is done in accordance with a specific system and with consideration of the fact that the general educational and cultural level of the personnel is rising, young soldiers arrive in the subunits twice a year, the officer personnel are renewed periodically, and that training is conducted in a differentiated manner, encompassing all cagetories of commanders and political officers, staff officers, and sergeants-major and squad leaders to whom an exceptionally important role belongs in the improvement of individual work. Here special attention is devoted to the study of the conditions for living and the indoctrination of servicemen prior to call-up to the army. For this purpose, constant contacts with parents, with labor collectives, and with military commissariats are stressed.

Unquestionably, in the division are many reserves for the further improvement of individual work. One thing is unquestionable: the correct course has been set here.

Our party has always considered individual work as an effective means for the communist indoctrination of people, for a rise in their consciousness, and for strengthening discipline and organization.

The tasks for further improvement in ideological and political-indoctrinational work at the contemporary stage are set forth in the decree of the CPSU Central Committee of 26 April 1979. This decree, it was pointed out at the 26th Party Congress, is a document having long-term effect. It was also stressed that, in essence, the question concerns the restructuring of many sectors and spheres of ideological work. As one of the main directions of this restructuring, party documents name an abrupt turn toward a person, toward his needs and requirements, and toward the intensification of individual work.

It is proper that these questions were deeply and comprehensively discussed at the 6th Army-Wide Conference of Secretaries of Primary Party Organizations. The strengthening of ties with the broad masses of servicemen and ensuring high discipline and military order should be at the center of attention of Armed Forces communists, it was stressed in the greetings of the CPSU Central Committee to the participants in the conference.

There is no combat readiness without firm military discipline, it was pointed out in a report at the conference by the Soviet Minister of Defense, Marshal of the Soviet Union D. F. Ustinov. Now even individual manifestations of carelessness and indiscipline are absolutely impermissible.

Stressing that military discipline is primarily a political and moral category and that its foundation consists of the ideological conviction of the men and the spiritual maturity of the collective, the conference also defined the basic directions in the activity of party organizations for its further strengthening, including the improvement of individual work.

In the Ground Forces, just as in the other services of the Armed Forces, much has been done recently to improve individual work and to realize the requirements of the party concerning strengthening organizational and political work directly among the masses. One of the results of this work is that many large units and units are living without accidents and are distinguished by a high level of discipline and organization. For example, they include the units and subunits whose party organizations are headed by officers B. Kondakov, S. Sergeyev, V. Sokolyuk, V. Tryakin, and others.

It is favorable that questions concerning the practice of individual work have begun to be discussed more often at assemblies of commanders, political officers, and party and Komsomol activists. This experience has been generalized in a number of published works, including in special recommendations on the organization of individual indoctrinational work.

At the same time, in the practical activity of some commanders, political organs, and staff officers these questions have still not occupied a proper place. If it can be so expressed, at times talks about the necessity to intensify individual work predominate while the work itself is in a neglected state, bears an incidental and unsystematic character, and is organized without consideration of the socio-demographic composition of the servicemen.

A picture which is typical in this respect was disclosed during an analysis of the reasons for a serious incident in one of the subunits of the Siberian Military District. A subunit directly subordinate to the headquarters of a large unit was located, as they say, two steps away from it. It is even stranger to hear from the large unit commander and chief of the political department that various facts on disruptions of order, including unprescribed mutual relations which occurred in the subunit and, not being suppressed led to the incident, were unknown to them. It occurred in the guard which had been detailed to guard equipment during its shipment by railroad. It was learned that the former commander of the subunit, Major N. Selivanov, and his political officer, Major V. Rusak, did not devote proper attention to the selection of the guard.

What happened is directly connected with the poor effectiveness of party work and with the fact that some communists were separated from the personnel, forgot the way to the barracks, and did not imagine the true state of affairs.

Whatever post a communist may occupy, it is his service and party duty to work constantly among the masses of the men, to know people not by hearsay but on the basis of their profound study, and to be a personal example of attention to a person.

One cannot fail to recognize that such a pointed posing of the problem and a principled evaluation of facts of the leaders' separation from the personnel is clearly insufficient for some party organizations including those of headquarters, the role of which is constantly growing.

Cases of a liberal, compromising attitude toward facts of this type occurred, for example, in the regiment commanded by Major S. Korpachev and where the political officer is Major V. Trotsenko (Ural Military District). As a result, cases of the violation of military discipline became more frequent here. Only after the intervention of higher political organs was a principled evaluation given to the weak individual work of some communists.

The Interior Service Regulation of the Soviet Armed Forces directs each commander and chief to study the personnel comprehensively by means of personal contact with them in service as well as under living conditions. Unquestionably, it is necessary to achieve the accomplishment of these duties. But it is just as important for the party organizations to ensure that each communist feels a personal requirement in individual work, masters the skill in its conduct, and gives to it all the ardor of his heart. All elements, especially the regimental apparatus, are called upon to work directly in the subunits with each person--everywhere, where he studies, performs service, works, or rests. Here, much depends on the ability of the chief to change from official to comradely, confidential relations.

We cannot fail to stress the urgency of the conclusion which was drawn at the conference of secretaries of party organizations: The main thing in indoctrinating the servicemen is ensuring the personal example of the communists and Komsomols in the accomplishment of military duty and observing the requirements of military discipline. The communists and Komsomols comprise more than 90 percent of the Ground Forces personnel. And to ensure their exemplariness means accomplishing nine-tenths of the task for the further strengthening of military discipline.

The task of ensuring the personal exemplariness of the communists has been accomplished successfully, for example, in the party organization where the secretary is Major A. Rossiyskiy. Here, special attention is devoted to young officer-communists. Last year, the majority of them were heard at sessions of the battalion party committee and the party bureau. The party committee teaches the communists the practice of rallying collectives and individual work and it instills, if it can be expressed this way, a taste for it and molds in the party members actual responsibility for personal discipline and for the behavior of subordinates.

Senior commanders and officers of the district and division echelons who have grown wise with experience are called upon to serve as examples of individual work. The Ground Forces Political Directorate has recommended that questions on strengthening individual work with the youth in light of the tasks which follow from the speech of Comrade L. I. Brezhnev at the 19th Komsomol Congress as well as from the recommendations of the Army-Wide Conference of Secretaries of Primary Party Organizations be discussed at meetings and sessions of bureaus in headquarters party organizations and in the party organizations of units and subunits.

It is our duty and the duty of communists to transmit to the young our experience and our conviction, in so doing following from the fact that youth is the time when a person is molded as a personality as well as a citizen. It is especially important to assist the youth in its striving to learn honest labor, the ability to see life with all its difficulties from positions of Soviet patriotism and communist conviction, and to learn irreconcilability toward the slightest deviation from the standards of our ethics and morality.

Realization of the lines of the Army-Wide Conference, to include on improving individual work, is inseparably linked with the conversion of each company and battery into a center of instruction and indoctrination of the personnel.

What is being done in this direction since the conference? A study of the question, in particular in the Transcaucasus Military District, showed that on the whole work in this field is acquiring a more purposeful nature. However, in some places as formerly, enthusiasm for mass measures is observed and many leaders do not reach the company or person. There can be no putting up with this.

A special role belongs to the company political officer. In the indoctrination of the personnel, he concentrates main attention on individual work with each serviceman. It is namely such an approach which forms the basis of the high authority of Captain R. Minulin, Senior Lieutenant A. Samorukov, Lieutenant O. Pustovit, and many other young political officers.

Unfortunately, in the practice of individual company political officers an individual approach has not yet become the main method, which is the consequence of insufficient attention to these questions on the part of political organs as well as of shortcomings in the organization of the training-indoctrinational process in the military-political schools where a taste for individual work is not always instilled persistently and purposefully in the future political officers. Life requires that more attention also be devoted to these questions in other military educational institutions as well as in training subunits.

It is a task of primary importance to utilize in full measure such a tested tool as individual work along with all other forms in explaining and bringing to the deep consciousness of each man the documents of the May (1982) plenum of the CPSU Central Committee, the Food Program, and the decrees of the CPSU Central Committee and the USSR Council of Ministers which are connected with it.

"It is important," stressed Comrade L. I. Brezhnev in his report at the plenum, "that the party organizations concentrate their efforts on the main thing. And the main thing is work with people." In these words there are clear reference points for the practical activity of each party organization and of each commander, political officer, and staff officer who is called upon to conduct work with people and with a specific person daily and with personal interest and responsibility.

6367
CSO: 1801/09

MOTORIZED RIFLE UNITS: VIOLATIONS OF REGULATIONS DISCUSSED

Moscow KRASNAYA ZVEZDA in Russian 6 Jun 82 p 2

[Article by Maj G. Barskov, commander of motorized rifle battalion, Group of Soviet Forces in Germany: "The Bitter Truth Is Better"]

[Text] Senior Lieutenant V. Pokrovskiy's demotion in duty as battery commander caused contradictory talk. "Is it worth proceeding so sternly with the officer?" some asked. "Pokrovskiy did not spare himself in service. Of course, he also had blunders. But you see, the one who does nothing does not make a mistake," others reasoned.

Why was the officer punished so strictly? The battery which we are discussing had a good record for a long time. But when Senior Lieutenant Pokrovskiy headed it, matters in this subunit soon began to slide. Cases of violation of military discipline which became more frequent were especially alarming. It cannot be said that Senior Lieutenant Pokrovskiy did nothing to strengthen it. Certain organizational work was conducted, but its results were not perceptible. This was clearly manifested each time on field lessons and firings. It often happened that the battery was late in arriving at the indicated area. And when the chiefs required that Senior Lieutenant Pokrovskiy report the reasons why one or another blunder occurred, the young battery commander, as a rule, found various circumstances and, in his report, tried to select those facts which would diminish his guilt and conceal the carelessness of his subordinates. In short, he threw dust in their eyes...

But this became clear only when a coarse violation of discipline occurred in the subunit. It turned out that it was not chance, as officer Pokrovskiy tried to explain, but had long been perceived in the collective. No one but the battery commander was guilty first of all in what occurred in the subunit. And therefore, he was held strictly and greatly accountable.

Anyone who has been in the mountains knows that even a small stone which has broken away from a cliff can cause an entire landslide. This also happens frequently in life.. A small deviation from the prescribed rules, it would appear, occurred but if it is not stopped in good time, as they say, nipped in the bud, it may lead to great, undesirable consequences. This happens, as a rule, when instead of a profound and exacting analysis of the delinquency which has occurred with all means, the commander and political officer try, as they say, not to wash their dirty linen in public.

Meanwhile life teaches: however bitter the truth may be, it should not be ignored. It must be owned that some officers do not accept this obvious truth at once, especially young ones. At one time, I did not understand this, either.

It was during the first year of my command of a company. I received a good inheritance from my predecessor--the subunit occupied a leading place in the regiment. It was pleasant to hear when my name was mentioned among the best at meetings and conferences. Of course, I understood that the fact that the personnel achieved high results in combat and political training for the present was not to my credit. However, ambitious feelings had already seized me. I did not want the senior commanders to form a poor opinion of the subunit, and this means, of me, and I did not always evaluate the misdemeanors of some subordinates based on principle, while sometimes, during reports on the status of discipline, I omitted details, at times most important.

For example, it was known in the company that Private V. Kucherenko behaved in far from the best manner. I should have adopted all measures of influence and seen that the soldier changed his behavior. But somehow nothing ever happened. And when Kurchenko's "fame" rolled to regimental headquarters, I tried to convince the unit commander that unobjective information had reached him.

But Private Kucherenko, with a sense of impunity, behaved more freely with each passing day. Figuratively speaking, he was that very pebble which could break away from the cliff at any moment. As I should have expected, this happened. One day, Private Kurchenko used alcohol, treated one of the young soldiers crudely, and finally found himself in the guardhouse.

I was strictly punished. It was vexing, of course. But it was namely then that I drew the conclusion for myself and realized with all distinctness: the path to success is in honest labor and a principled evaluation of achievements and omissions.

I am convinced that an officer becomes a genuine, mature commander only when he instills and molds within himself this quality which is necessary for each communist-leader.

In this connection, I should like to tell about Senior Lieutenant A. Lyakhovskiy. He is a comparatively young company commander. But the subunit which he heads has already become the best in the unit in firing training. Of course, the primary role was played here by the skillful organization of the training process and the high quality of the lessons conducted on the range. But, in my opinion, great significance is also had by the fact that Senior Lieutenant Lyakhovskiy is an honest officer who is demanding toward himself and toward his subordinates. I often had the occasion to hear his reports on the status of combat training and discipline in the subunit subordinate to him. And I remember no instance where the young officer tried to present matters in a rosy light or to conceal a blunder committed in the training and discipline of subordinates. On the contrary if, as we say, a ChP [extraordinary occurrence] occurred, the company commander reports on what has occurred, does not evade responsibility, and does not require leniency.

Once, at an evening check it was discovered that one soldier was not in formation. It became clear: absence without leave. Senior Lieutenant Lyakhovskiy did not

begin to hope that the soldier was just about to appear. He immediately reported to the regimental duty officer and informed me. The soldier soon actually arrived, but this incident gave us the grounds to intervene in time and to assist the young commander in the organization of prescribed order and indoctrinational work.

It should also be noted that Senior Lieutenant Lyakhovskiy devotes great attention to individual work with each subordinate and thoroughly analyzes disciplinary practice with the platoon leaders and sergeants.

Such a work style is also typical for Captain A. Zubkov, Senior Lieutenant A. Golovets, and many other of our officers. It is namely this which can explain the successes attained each year by the battalion personnel in combat and political training. According to the results of the socialist competition in the winter training period, the battalion again emerged in first place in the unit.

Unfortunately, people of a different cast, those who like to be among the leaders by embellishing the true state of affairs, have not yet been converted. And here, quite recently, Senior Lieutenant M. Mikhaylov, Captain M. Zemlyanoy, Warrant Officer [praporshchik] V. Bridchenko, and several others were subjected to criticism at a unit service conference for unobjectivity of the report on the status of military discipline. In which regard, this is not the first time that they have received rebukes of this type.

In the last training year, for example, the subordinates of Senior Lieutenant Mikhaylov assumed lofty socialist obligations. But their accomplishment proceeded in far from the best manner, and some of the soldiers and sergeants did not observe discipline. The battalion staff and the party bureau subjected the officer to criticism for insufficiently effective work in the accomplishment of the obligations. Each time, the officer admitted his guilt and immediately corrected the matter basically through...unobjective information. He wanted to "look good," even if by such a method. Naturally, receiving unobjective data on the state of affairs in this subunit, the battalion staff could not always intervene in time and render assistance. In this way, the matter became aggravated even more. The result was as follows: the subunit commanded by Senior Lieutenant Mikhaylov slipped to one of the last places in the regiment. Mikhaylov received strict punishment for unobjectivity in evaluating what has been achieved.

In reflecting on the vitality of such phenomena, one comes to the conclusion that the reasons for unobjective reports should be sought first of all in the personal qualities of some officers. There is no justification for such phenomena and there can be none. They deserve the most principled and strictest evaluation. However, in speaking of the reasons for unobjective reports, in my opinion, we cannot fail to consider the following circumstance, either. At times we, the senior commanders, are also guilty of this. Perhaps it happens that some commander, hearing from a subordinate officer a report on a violation of discipline in a company or platoon, heaps reproaches on him, at times undeserved, without delving into the essence of the delinquency. Here, he is not especially fastidious in his choice of words. Although in this case, it is believed, it is not emotions that are needed but a detailed analysis and a thorough clarification of the reasons for what occurred and a determination of measures which would exclude violations in the future.

It goes without saying that any violation of discipline is an unpleasantness for a commander of any rank. But this is also a test of them for maturity, devotion to principle, and honesty. The actions of any commander should be determined by the main thing--by the interests of combat readiness which, as is known, is the main thing in the service of each officer. And the one who is inclined to manifest even the slightest dishonesty and undermine the foundation of military order lowers the level of combat readiness.

We will always remember the popular wisdom: "Better the bitter truth than a sweet lie."

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TANK UNITS: OFFICER RECEIVES AWARD FOR SAVING SOLDIER

Moscow KRASNAYA ZVEZDA in Russian 10 Jun 82 p 3

[Article by Capt A. Borovkov: "The Lieutenant's Exploit"]

[Text] Ukase of the Presidium of the USSR Supreme Soviet on Awarding Lieutenant V. I. Nigmatullin the Order of the Red Star.

For courage and valor displayed in the accomplishment of military duty, Lieutenant Viner Il'barisovich Nigmatullin is awarded the Order of the Red Star.

Chairman of the Presidium of the
USSR Supreme Soviet

L. Brezhnev

Secretary of the Presidium of the
USSR Supreme Soviet

M. Georgadze

Moscow, The Kremlin
9 June 1982

Lieutenant V. Nigmatullin needed only four seconds to save the life of a subordinate in a critical situation.

A lesson on throwing hand grenades from a tank was to take place on the range in the morning. The lesson director conducted a briefing on safety measures, appointed the seniors at the training sites, and gave the command to begin the accomplishment of the exercise.

On this day, Lieutenant V. Nigmatullin was elated: on the eve, the company commander praised him for the skillful conduct of lessons and showed him as an example for the other officers.

The officer destiny of Viner Nigmatullin developed successfully. After completing military school, he was sent to the Transbaykal Military District as the leader of

a tank platoon. The officer soon proved himself to be a skillful teacher of subordinates.

...The lesson proceeded in accordance with a clearly worked out plan: the shifts occupied the initial line and the grenades exploded with a crash.

"Private Sadykov, prepare grenade!" Lieutenant Nigmatullin ordered the man from the next shift. Occupying the position of the loader in the tank, the soldier screwed in the igniter set as far as it would go and placed the loaded grenade in the bag.

"Against the 'enemy,' with grenade--fire!" the command followed.

The hatch lid was thrown back. Due to excess tension, Private Sadykov jerked the safety pin strongly, and the grenade, slipping out of his hand, fell on the tank floor.

Lieutenant Nigmatullin understood that it was impossible to reach the grenade and throw it from the tank in the several seconds which now remained until detonation. And the soldier, as if petrified, looked at the officer with eyes wide open. Nigmatullin made the only decision possible in the situation which had developed: he thrust the grenade deep down with the toe of his boot and himself covered the soldier with his own body.

The explosion roared inside the tank....

In the hospital to which the lieutenant was brought, the military medical personnel discovered seven big and small fragments in his body. The doctors struggled for a long time for the valiant officer's life. Now Viner Nigmatullin is recuperating and soon will be able to return to the performance of his service duties.

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GROUND FORCES

ASSAULT TRAINING BY HELICOPTER IN AFGHANISTAN NOTED

Moscow KRASNAYA ZVEZDA in Russian 16 Jun 82 p 1

[Article by Capt V. Glezdenev: "Assault Landing in the Mountains--On Afghanistan Land"]

> [Text] The personnel of this subunit of helicoptermen are serving as part of the limited contingent of Soviet troops who are accomplishing their international duty in the Democratic Republic of Afghanistan. In the summer training period, the aviators are accomplishing the most varied missions and working with combat ardor. Competing for a worthy greeting for the 60th anniversary of the formation of the USSR, they are persistently improving their soldierly skill.

On that day, the helicoptermen were to participate in a tactical-flight exercise. But, as often happens in these parts, the weather deteriorated completely. Officer V. Pavlov, who had been appointed flight operations officer, looked at his watch anxiously. His concern was fully understandable: not much time remained to the start of the exercise, and the hurricane wind did not calm down. The dust which it raised covered the mountains in a dense shroud. Will the sortie take place? This thought now occupied the helicoptermen.

I observe Vitaliy Yegorovich and recall my first meeting with him. Then, the fierce wind blew in the same way and lashed against the tent, in which the aviators had assembled, with dust. On that day, those who had distinguished themselves received awards for successes in combat and political training. The formation was called off due to the bad weather. But the atmosphere was one of elation and festivity in the canvas "active hall." And again the following unusual detail. When they called the name of the first recipient, a tape recording of wartime songs sounded softly in the tent. To the exciting melodies which are dear to the heart awards were given to Majors N. Polyanskiy, A. Surtsukov, and L. Lugovskiy and Captains A. Sadokhin, I. Ul'yanovich, and A. Ibragimov. I recalled how Pavlov spoke after the reception of the reward. Expressing the thoughts of his fellow-servicemen, he spoke of the continuity of combat traditions and of the loyalty of the young aviators to the cause of their fathers and grandfathers. He spoke emotionally and passionately. A firm commander's will and the fighting-man's character of the Soviet pilot were felt in his words....

Today's flight mission is not easy, either. But it is within the capabilities of the aviators.

When the wind began to die down a little, the crews and assault troops took their places in the helicopters literally in minutes. After takeoff, the rotary-wing aircraft set their course for the assigned area. The first group was led by Lieutenant Colonel K. Shevelev, and the second--by Major N. Polyanskiy. They are both experienced aerial fighters, cool, and bold. They do not become become flustered in what would appear to be the most critical situations. I also had the occasion to fly with Polyanskiy. And his ability not only to attune himself for battle, but also to attune his subordinates, always delighted me.

One day on an exercise, the helicoptermen were assigned the mission to destroy the "enemy" who had assembled in a ravine. The approach to the target was hindered by steep cliffs. Major Polyanskiy made his decision: to attack from two directions along a narrow pass. Of course, filigree precision was required in piloting as was the coordination of actions of the element leader and wingman. Skill and initiative played their part. The rotary-wing aircraft suddenly plastered the "enemy" with a rocket strike.

The strong bonds of combat friendship and the comradely mutual assistance which distinguish the Soviet servicemen--these are also a noteworthy tradition of routine soldierly days. Even before the tactical-flight exercise the helicoptermen established close contact with the motorized rifle subunit which, together with them, prepared to accomplish the training-combat mission. The assault troops rendered assistance in the preparation of terrain models. On the lesson, they refined the questions of cooperation in the dynamics of the battle together.

Following the route, the helicopters approached the most difficult section of the mountain terrain. The crew members and assault troops are observing the situation in the air and on the ground attentively. Along the course--the range. The practical working out of the training-combat exercise begins. Here an assault rifleman noted an "enemy" weapons emplacement. A burst of tracer bullets from an assault rifle blazed in the direction of the target. Then the powerful on-board weapons of the helicopters joined the fight.

The landing site is coming closer and closer. It was selected not far from the channel of a dry mountain river. Taking cover behind the projections of cliffs and conducting fire on the targets, the rotary-wing aircraft land on a small rocky "dime" one after the other. Lieutenant Colonel K. Shevelev, Major Yu. Grudinkin, and Captains A. Sadokhin and V. Kuz'minov as well as other pilots demonstrated genuine skill during such a landing.

The assault troops which dismounted immediately occupied the start line and the helicopters, freeing the site, rose into the sky. The loud "Hurrah!" of the attackers rolled over the mountains. The assault troops knocked the "enemy" from the strong point and began his pursuit. And the aviators helped again, supporting the attack by fire.

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AIR DEFENSE FORCES

COMMENTARY ON AIR DEFENSE TRAINING

Cause of Low Effectiveness in Training

Moscow KRASNAYA ZVEZDA in Russian 7 Sep 82 p 1

[Article by Engr-Capt V. Kobyakin, Red-Banner North Caucasus Military District: "Coasting on Idle: What Diminishes the Effectiveness of Training Exercises"]

[Text] "I don't know what to do," lamented battery deputy commander Sr Lt V. Sinyutenko just before commencement of special training drills for radar operators. "We can't fit within the standard time allocated for equipment operation. All we can do is switch off the radar and conduct the drill 'by feel'...."

Indeed, this subunit's total utilization time for the missile guidance radar for training purposes greatly exceeds the allowable limit. And excessive use accelerates wear on equipment components and assemblies and diminishes its operational reliability. What is the problem?

"A high level of skill cannot be achieved without frequent practice drills. And we are forced to conduct them, although this leads to overuse of equipment," explained Senior Lieutenant Sinyutenko.

He went on to explain that because of the increased number of practice drills, the battery's radar operators had substantially improved their combat proficiency and smoothness of operation. Many elements of combat performance which at the beginning of the summer training period had caused difficulties for the specialists and were being executed with errors now cause them no difficulty whatsoever.

Only one conclusion could be drawn from the officer's statement: although the battery had gone beyond the assigned time limit for utilization of equipment, the achieved goal justified the means: the increased proficiency of these specialists enables them confidently to carry out the most difficult tasks.

But now the training drill had begun. The men were to practice operating under conditions of electronic jamming. This was not an easy training topic. But one's attention was drawn by the fact that the operators were working without the proper stress, and their actions seemed listless. But what if the air situation were to be made more complex?

...A small, fast-moving target was proceeding toward the battalion's dispositions. A scenario change called for the guidance officer to be replaced by Lt A. Snytkin, head of one of the system crews. Within seconds he had to assess the situation, choose the proper equipment operating mode, and ensure precise missile guidance to the target.

Just where was the specialists' recent confidence? Nervousness had appeared in their actions, and commands and reports had become inconsistent and contradictory. As a result they were unable to engage the target at the limit of the missile system's range. I thought: could this be mere happenstance? But another target appeared, and once again the capabilities of the combat hardware were not fully utilized.

Of course one can blame the errors on the inadequate proficiency of Lieutenant Snytkin, who was performing in an associated occupational specialty. But the radar operators had not done any better. They were clearly failing to stand up under the extreme stress and were making mistakes.

As we see, a great many errors of omission in the specialists' training were revealed in the course of the practice drill. Consequently the strategy selected in the subunit, of intensifying the training process by increasing the number of practice drills, turned out to be not so effective. And this was because they were little concerned about creating an instructive environment, situations typical of actual combat. And yet this is the most effective way to improve the quality of combat training.

One cannot discuss effectiveness of training activities in an abstract manner. It is a concrete concept, which is expressed in seconds gained on performance standards, in reducing errors made during operation, and in mastering certain techniques and methods which guarantee sure and certain actions in any situations, even the most unexpected. And the foundation of all efficient labor is precise organization and well thought-out planning. It is precisely this which battery officers sometimes lack. I believe that this is also precisely the main reason for overuse of equipment time.

Let us return to the practice drill we were discussing. The schedule allocated 2 hours for it. How was this time utilized? Ten minutes were spent on a break, and 30 minutes on repelling an "aggressor" attack by two operator duty shifts. Another half hour was required to check accuracy of target tracking by each specialist. In the time remaining the officer in charge of the practice drill "played through" several scenario instructions devised in conformity with the exercise plan, after which he went over with the men the points of the guideline documents pertaining to combat procedures, and then summed up results.

Thus even according to the most conservative calculations, they ran up 30 minutes of time when the equipment did not have to be switched on and operating. But the equipment was on the entire two hours at the practice drill. And if we consider that the drill did not help in full measure reinforce the specialists' needed skills and that an additional practice drill with equipment on will be required, it becomes obvious why equipment time is inefficiently expended here.

For the sake of fairness we must state that recently some concrete measures have been taken in the subunit to achieve more economical expenditure of equipment time. They have begun keeping records on equipment operation and are more closely monitoring to ensure equipment is used for training purposes. But much still remains to be done. Reserve potential for increasing the effectiveness of training activities is to be found in an innovative approach to organization of such activities and thrifty utilization of each and every minute of training time. Obviously this must be emphasized in organizing training and competition.

Commander Night Training Discussed

Moscow KRASNAYA ZVEZDA in Russian 8 Sep 82 p 2

[Article, published under the heading "The Commander and Today's Combat," by Gds Col K. Bokov, Order of Lenin Moscow Air Defense District: "When Night Is an Ally"]

[Text] The tactical exercise began at night and from the very first moments assumed a stress-filled character. The crews had barely taken their stations when the "aggressor" mounted a massive air attack on the defended installation. Almost simultaneously with this the position filled with smoke, and fires erupted near the launchers and missile guidance site.

We cannot say that officer S. Kalmykov's men were not prepared to operate in such a situation. At practice drills, including at night, they had repeatedly rehearsed the complex elements of combat action . But in this instance such a dynamic situation had been created, and its psychological effect proved so strong, that this immediately disrupted many specialists from their accustomed work performance rhythm. They began working too hurriedly and making one mistake after another.

Some of the officers were also performing below par. The unexpected situations made them nonplussed, control of their men was slipping out of their hands, they were not closely monitoring their actions, and in certain instances were simply letting things drift.

But now the first phase of the drill was complete. Tensions lessened. Now, it seemed, the specialists would become calm and would perform the next exercise tasks with greater confidence. Things happened differently, however. The operators were slow in detecting a new air target, and in addition they were unable to accomplish lock-on immediately. Nor did the crews do an exceptional job of loading the launchers. The missile crews were working listlessly, and one could sense in their actions constraint and excessive cautiousness. Even Gds Lt V. Kurnosov's men, who usually surpassed night performance standards, this time barely earned a mark of good.

Observing the subunit's men at work, I recalled a fairly recent discussion which had taken place at an officer meeting at unit headquarters. The subject being discussed was night training of specialists, and some officers at that time expressed the opinion that for antiaircraft missile crews there is no particular difference between day and night operations. As for the radar operators, they are working in vans, where the same level of lighting is

maintained around the clock. And the launcher crews, if they hone their actions to automatism, will always do a precision job of loading the launcher, even blindfolded.

I remember being surprised that none of those present said anything in opposition to this view. And now, at an exercise, when deficiencies in the specialists' training were so clearly evident, I could not help but think that perhaps these errors were a consequence of underestimating night practice drills.

The performance of many of the specialists was criticized at the critique following the tactical exercise. Later these performances were analyzed in detail by the subunit commander. And I noted that all those present were concerned about the revealed deficiencies, but none of the officers tried to delve into their causes. Indeed, why is it that even well-trained specialists had not avoided mistakes, and why is it that they committed errors in situations for which they had repeatedly rehearsed at training drills? Unfortunately all these questions remained unanswered. And yet they should be analyzed thoroughly and in detail.

Many mistakes were due to the subunit officers' formalistic approach to organization of night training drills. The training process here was structured without considering the peculiar aspects imposed by nighttime conditions on the actions of the specialists. The physiological factors which affect a person's state of working efficiency were also ignored. The training techniques and methods used in daylight conditions were mechanically transferred, without any adjustments, to practice drills during hours of darkness.

For example, in the missile battery under the command of Gds Sr Lt L. Sopko, some element involved in loading a launcher would be rehearsed down to the finest detail during the day. Subsequently this same element would be rehearsed in the dark, at first with supplementary lighting sources, and later with standard illumination. This would continue until the performance standard had been fully achieved as an aggregate.

This technique is unquestionably reliable and effective. But it enables one to accomplish only one part of the task. We know that when performing combat procedures in the dark, there is a sharp increase in the importance of such qualities and independence and attentiveness. Physical and psychological work loads have a more perceptible effect under these conditions, and a person tires more rapidly. Precisely these important elements are ignored here.

In addition, prior to commencement of night practice drills the specialists would be given additional rest, and all personnel would be notified in advance about the items to be worked on. Thus the very approach to organizing practice drills assumed a reduced-load combat work commencement variant and excluded such a component as the element of surprise, which is so important for psychological-conditioning specialists. In addition, work would usually begin with the commencement of twilight and run to retreat, but not be conducted in the middle of the night. Of course all this substantially simplified practice drill conditions.

Similar mistakes in night training were also to some degree typical of other subunits. Commanders focused attention only on rehearsing those elements execution of which is difficult in the dark, which of course is very important, but they would frequently ignore another, extremely important aspect of things, connected with the physiological peculiarities of work in nightime conditions. And this would have an effect on the quality of training specialists, especially during operations in a complex situation.

Experience indicates that at night, in spite of what seem to be working conditions which are identical to daytime conditions, operators have diminished attentiveness, reduced acuity of response, and tire more rapidly. Usually immediately following an "aggressor" attack specialists feel drained, and for a certain period of time their alertness is diminished. And it frequently happens that the appearance of a new air target catches them napping, and it takes them time to build up to the requisite emotional level and pace in their combat work. Incidentally, precisely this occurred at the tactical exercise we were discussing above.

Of course a well-drilled, physically and psychologically toughened specialist with endurance is least susceptible to the additional factors which affect his performance at night. Recently a practice drill was held in the missile battery under the command of Gds Maj A. Kosarev. The crews were operating in almost total darkness, and the process of loading the launchers was accompanied by complicated, unexpected scenario instructions. The launcher crews worked with smoothness and precision, however. And the crews under the command of Gds Sr Sgt A. Klimkyavichus and Gds Jr Sgt A. Shebunov readied the launchers for firing in a time which surpassed daylight performance standards.

I must admit that such an excellent performance evoked doubts: was it not achieved at the cost of diminished quality? It turns out that it was not. The basis of the performance was the expert skills of the specialists, acquired in the course of night practice drills. They are conducted in conditions of substantial physical, emotional and other stress loads. Guards Major Kosarev prepares for every practice drill scenario instructions which, taking into account the individual peculiarities and level of proficiency of his specialists, foster the development of their volitional qualities and help increase their physical endurance and psychological steadiness.

Of course missile crewmen also need good physical fitness for successful performance in conditions of heavy work loads and continuous stress. All physical training classes and morning calisthenics in the subunit are conducted taking into account the specific features of the specialists' operation of the equipment. For example, with the launcher crewmen, for whom such qualities as endurance, agility, etc are more important, stress is placed on cross-country running, weight lifting, and rope climbing. Radar operators and radio telegraph operators, whose job involves little mobility, emphasize gymnastic exercise and athletic games.

The effectiveness of this approach to missile crew physical fitness is attested by the fact that the majority of crews produce stable results in executing four or more launcher loadings in a row. The specialists' high degree of physical endurance, in combination with their solid occupational skills, enables the

commander to hold night drills in maximally complex conditions and to achieve consistent performance results.

Also meriting approval is another thing: they regularly hold competitions in night conditions for the title of top crew and platoon. Such competitions make it possible most completely to rate the level of missile crewmen proficiency, to reveal the top performers' know-how, and to determine weak points in the training of some of the specialists.

I have deliberately discussed in detail the specific features of organization of night training in the battery under the command of Guards Major Kosarev. I believe that the search for the most effective techniques of training personnel to perform during hours of darkness should proceed in this direction.

Night has always been viewed as an ally of troops during combat operations. The role of night actions has become even greater in today's combat. Night is a reliable ally, however, only to those who possess consummate mastery of their job, whose performance skill is not affected by darkness and the various factors connected with it. This has been proven in the experience of tactical exercises and missile firings, and it has been confirmed by daily practical combat training and training results.

Interceptor Training

Moscow KRASNAYA ZVEZDA in Russian 15 Sep 82 p 1

[Article by Capt V. Dolgishev, Order of Lenin Moscow Air Defense District: "Fighter Missile Salvos"]

[Text] The air situation was extremely complex. "Aggressor" aircraft, protected by jamming transmitters, were swiftly approaching the defended target from various directions, at various altitudes. Fighters were scrambled to intercept the fast-moving target. One of the pairs of interceptors was led by Lt Col N. Vasin. His wingman was Capt A. Ravodin.

At first everything proceeded without complications. The pilots, well practiced in making intercepts, performed with confidence, precisely executing ground commands. But at the very climax of the combat the "aggressor" employed intensive jamming. The leader of the other fighter pair, which was about to attack the target, was slow in detecting the target blip on the airborne radar sight. The two aircraft continued closing at elevated speed. The leader was hoping to set up conditions for the attack and to fire a missile at closer range. He was unable to do so. The fighters had to disengage.

"Target continuing course!" the intercept controller informed Lt Col N. Vasin.

Now it depended solely on him and his wingman, Capt A. Ravodin, whether or not they would succeed in blocking the path of the "aggressor," whether the interceptors would accomplish the assigned mission of defending the installation. Officer Vasin and his wingman had to operate in conditions of heavy jamming and an even more stringent lack of time. Nevertheless the flight leader was able to

discern the barely visible target return among the jamming clutter. Fire! The missile, trailing flame, sped swiftly toward the target. The pilot, however, did not hasten to break off. They were ready, if necessary, to fire other missiles and their cannons. But this was not needed.

"Target destroyed!" reported the GCI controller.

The success of this difficult engagement filled the regiment's aviators with enthusiasm. The pledges made by the unit personnel for the exercise had been fully achieved. The district commander awarded the top performers valuable gifts. Lt Col N. Vasin was also rewarded. This difficult victory gained in the skies once again convincingly confirmed his reputation as a skilled air warrior and intercept expert.

Nikolay Frolovich Vasin was also pleased by the success of his wingman, Capt A. Ravodin, pilots officers V. Kostenko and I. Makushkin, GCI controllers Capt V. Kuzenko and Sr Lt V. Khlyustov, as well as others in the regiment.

The experience of actual missile firings during intercept missions demonstrated that in air combat the pilot must be ready for any unexpected turn of events. The more thoroughly procedures and sequence of actions are thought through and rehearsed in practice drills, the easier and faster the pilot can seize the initiative, impose his will on the adversary, and achieve victory in combat. Combat expert Lt Col N. Vasin teaches this to the younger pilots.

Aviator combat training does not take time-outs. Intensive flying at the final stage of the training year is also continuing after the exercise. The aviators are leading the competition among the district's units for honoring the 60th anniversary of establishment of the USSR.

Subunit Tactical Exercise

Moscow KRASNAYA ZVEZDA in Russian 16 Sep 82 p 2

[Article, published under the heading "The Commander and Contemporary Combat," by Col I. Dokuchayev, Order of Lenin Moscow Air Defense District: "March to a New Position"]

[Text] At a tactical exercise for the subunit under the command of Maj A. Chernyshev, it was assigned the mission of redeploying to a new area in order to reestablish the fire plan which had been disrupted as a result of an "aggressor" strike.

The time allocated for the move was tight. This was demanded by the prevailing situation. The subunit failed to meet the time schedule.

Why did this happen? What deficiencies were revealed? First of all, many specialists lacked solid skills in meeting the specified standard time performance in taking down equipment and facilities and readying them for the road. Some officers attempted to leave some of the equipment at the site, that is, merely to "designate" a column. During the march itself little consideration was given

to the specific features of the terrain and route, as well as possible "aggressor" actions. Problems of combat support were handled with inadequate precision.

What was the problem? An analysis indicated that many arbitrary elements had been employed here in working on matters of march preparation. For example, at all exercises the subunit had executed a march only into one and the same area, and the commander failed to study other possible positions. Personnel's main concern was to take down the equipment and reach the new area. They failed to pay attention to the fact that the subunit was not taking to the road at full strength and that some of the weapons and combat equipment were left behind at the previous site. The requisite tactical background was not created during the march. Clearly there was not much benefit from such exercises.

In the subunit under the command of officer V. Kadin they have a different approach to working on problems of field proficiency. Here each and every training activity is conducted against a realistic tactical background, and they work resolutely to eradicate elements of unnecessary relaxation of demands and unnecessary situation simplification.

I happened to attend a meeting the commander held with his officers. They discussed placement of personnel in the crews upon discharge into the reserves of experienced, highly-trained specialists who had completed their tour. Familiar with each and every NCO and enlisted man, their level of proficiency, including personal qualities, strong points and deficiencies, the commander sought to assign his men in such a manner that the level of combat proficiency on the crews would remain high.

At that time the subunit was preparing for accomplishing training tasks pertaining to redeploying to new positions. Two large sheets of paper lay in front of the commander. The makeup of the crews as of that day was listed on the sheet on the left. Written on the sheet on the right were those crew compositions in the subunit which would apply some time later. These lists were shorter than those on the sheet on the left. Examining them, I could see that the makeup of the crews was in conformity with the requirements of accomplishing the training task.

Other lists also lay on the commander's desk, also in two copies: lists of crews for taking down and disassembling facilities, equipment and weapons, and performance of tasks pertaining to the march and setting up equipment at the new site.

Naturally a question arose: would the reduced-strength crews be able to accomplish the difficult task within the specified time performance standard and with the requisite quality? The commander answered this question in the affirmative. I was shown the work schedule-timetables, in which the duties of the crew members were distributed and scheduled taking into account additional operations for each specialist.

I learned that drills to achieve smooth coordination of these crews had been conducted in the subunit on numerous occasions. And scenario instructions would be added: such-and-such a portion of personnel had become disabled.... Specialist replacements would be effected, which enabled the enlisted men and NCOs from different crews to become accustomed to one another in the course of joint combat efforts. This method also fostered dissemination of the most efficient techniques and procedures in accomplishing a combat mission.

Of course such an approach to organization of combat training required a high degree of activeness and initiative on the part of each and every officer, NCO, and enlisted man. As was demonstrated by the tactical exercise which was held soon thereafter, the subunit successfully accomplished its assigned missions.

Before the exercise commenced, the commander gathered his officers together for a special tactical drill. They map-studied the tactical area of operations. Officer Kadin asked difficult, sometimes unexpected questions. For example, from what directions and along what stretches of the route were attacks by enemy raiding parties probable? What areas were the most acceptable for the new position? From where could improvised materials be brought to the new position for fortifying and camouflaging it, and how? What routes could serve as principal routes and what routes could be alternates in the new position area? In all cases the commander demanded that his officers substantiate their answer.

Then the commander, accompanied by those officers who might be in charge of reconnaissance teams and columns, went out along one of the routes studied on the map -- the principal route -- and returned by an alternate route. In the field they detailed items which were initially discussed at the meeting. All this greatly fostered a successful performance at all stages of the exercise.

Practical experience convincingly demonstrates that the more complex the conditions of a march, the greater the extent to which they are in conformity with the demands of actual combat, the more vigorously the process of improving personnel tactical and field proficiency advances. In connection with this I recall a recent exercise. It was raining cats and dogs. The conditions for taking down equipment, marshaling it into columns, organizing communications, running reconnaissance and handling other types of support were additionally complicated by the fact that the march was to be executed at night. Nor could one ignore the fact that Maj A. Zotov had only recently taken command of the subunit. He performed with sureness and map-assigned the reconnaissance team's mission as if he was a native of the area, possessing detailed knowledge of the route.

The reconnaissance team departed. But now the situation changed abruptly: the new site to be occupied was not where initially designated but in a different area. It is to the credit of Major Zotov that he did not lose his composure. Signaling the head of the reconnaissance party to stop, the commander informed him of the new deployment area and instructed him to map-study the mission and report his recommendations. He himself analyzed the situation and arrived at

an appropriate decision. At the designated time the leader of the reconnaissance team reported his recommendations to the commander. He correctly selected a position in a prompt and timely manner, prior to arrival of the columns, and performed preparatory work at the site.

We must state that the officers in charge of the columns, N. Galiakhmetov and Yu. Bogdanov, performed competently en route, following the scenario instructions, and reached the new position area with minimal "casualties," having maintained the subunit's battleworthiness.

What did the analysis of the performance of officers Kadin and Zotov indicate? Obviously in the first instance officer Kadin's wealth of experience was a factor, experience amassed from one training session to the next, from exercise to exercise. But Major Zotov lacked such experience. What helped him succeed?

Of course an important role was played by the officers' excellent tactical training and the field proficiency of all personnel. Here is just one typical example. Officer N. Galiakhmetov, in charge of a column en route, promptly took necessary safety precautions along a stretch of road with a rather steep grade. He readied a tow truck and winch, wooden wheel chocks, and devised a system of sequential descent for the heavy rigs. In addition, officer Galiakhmetov took all measures to ensure successfully repelling any possible attack by hostile raiding parties on the column precisely along this most difficult stretch of road.

The "aggressor" in fact did attempt to wipe out the column. The officer's precautions, however, his clearly-formulated tasks assigned to his men and, most important, the minimal time spent by the column negotiating the difficult stretch of road thwarted the raiding party's scheme.

Of course Major Zotov actively made use of the officers' experience and skills. He himself, however, also displayed excellent knowledge of his job.

The unit commanding officer and his staff greatly assisted Major Zotov in improving tactical proficiency. On one occasion the unit commander, observing training activities being conducted by Zotov, drew his attention to the fact that they were somewhat abstract and out of touch with realistic conditions. The commander and his staff prepared a series of brief tactical drills both on the map and in the field, and conducted them with the officers in the course of training. The young commanders eagerly learned from the experience of their older comrades, boldly voiced their own suggestions and substantiated them. Major Zotov was also very active in these training drills. He did a good deal of independent work, studied the experience of the top commanders, and incorporated it into practical training activities. Thus he honed his skill at innovatively solving complex combat training problems.

Unfortunately we still encounter instances where unit commanders and staffs fail to devote adequate attention to officer tactical, and particularly field proficiency. The consequences of this are felt in the course of training drills and exercises. In one of the units they decided to display initiative in redpeloying a subunit to a new site. Seeing that the truck-and-trailer rigs

were having difficulty along one of the stretches of road due to the deep ruts dug by the vehicles which had preceded them, some of the officers decided to detour that stretch. They should have first reconnoitered the proposed detour in order to determine whether it was passable, but they failed to do so. As a result, some of the combat equipment became deeply enmired in the soft ground.

What conclusions were drawn? Essentially none whatsoever! The unit commander merely took measures to pull the combat equipment out of the mud and return it to the subunit, and yet the incident was cause for a detailed analysis and a firm discussion of the role and place of initiative grounded on thorough knowledge of one's job and precise consideration of all the factors and circumstances determining the success of a march. The unit commanding officer and his staff, however, failed to make use of this opportunity.

A march to a new site is a fairly complex element of the combat training of air defense personnel. Therefore work on these procedures demands of commanders and staffs maximum persistence, efficiency, initiative, and innovativeness.

Psychological Training for Missile Crewmen

Moscow KRASNAYA ZVEZDA in Russian 25 Sep 82 p 2

[Article by Lt Col G. Sverdlov: "Essential for Combat: Psychological Conditioning of Missile Crewmen"]

[Text] Missile crewmen rightly call mock combat firings on the range the most complex and difficult test, in which their specialized and tactical training proficiency, psychological conditioning, and preparedness to carry out their missions in realistic combat conditions are tested against the toughest yardsticks. It is quite understandable that such serious tests involve considerable physical and emotional stresses.

I recall the unit in which I began my military service. When we learned that we would be going out to the range, the normal rhythm of work and training in the regiment's subunits would change abruptly. We officers would stay in the unit late into the night, checking again and again the state of the equipment and preparedness of our men; sometimes, ignoring the NCOs, we would take upon ourselves the job of settling the most trivial matters. I should make a comment at this point: the less time remaining until our departure, the greater the amount of nervous tension we all felt. In addition, sometimes at training drills even well-trained crews were unable at the decisive moment, in other words, at moments of peak stress, to hold their emotions in check and would make basic mistakes.

Of course we young officers, who lacked experience in firing on the range and did not know how to take into account the specific psychological features and individual traits of our subunits, could not understand the reasons for these phenomena. It was only much later that many of us realized that the sharply increased emotional stress on the specialists and, as a consequence, breakdowns in performance were determined in large measure by that atmosphere which we ourselves were creating.

Many years have passed since that time. Considerable changes have taken place in combat training practices, and subunits have become enriched with experience in preparing for and conducting missile firings. But even today it frequently occurs that in preparing for and during mock combat firings, some commanders fail to consider the psychological aspect -- the emotional state of personnel, caused by an increased responsibility for carrying out complex tasks and expectation of extreme-condition situations. And this has a noticeable effect on the actions of the specialists.

Experienced missile officers, however, in preparing for firing and on the range, organize special training drills and exercises with an eye toward psychological conditioning of their men, and they skillfully utilize methods which make it possible to maintain a high level of working efficiency and aggressive enthusiasm in the men for an extended period of time.

In the guards antiaircraft missile unit under the command of master proficiency-rated Gds Col V. Yaroshchuk, for example, they have devised a method of psychological conditioning of missile crewmen prior to mock combat firings. These include special tests to check the emotional stability of radar operators and launcher crewmen and a series of discussions which relieve excessive tension. Work is organized taking into consideration the specific character and personality of the men. All this makes it possible on the one hand to foresee in advance the behavior of specialists in conditions of heavy psychological stresses, and on the other hand purposefully and consistently to develop in them the required moral-volitional qualities.

We know that a person's actions and his ability fully to bring to bear all his knowledge and skills in his work depend in large measure on his psychophysiological state. The latter is determined in large measure by the degree of complexity and singularity of working conditions and by the degree of one's responsibility for the end results. An experiment was conducted in one of the subunits. Three high proficiency-rating radar operators, possessing considerable experience in tuning and troubleshooting equipment, at the very commencement of an air attack were instructed to man scopes into which malfunctions had been introduced in advance -- a tube had been removed from each. They switched on the equipment. One of the operators correctly responded to the malfunction, reported it, and with this apparently considered his job completed. The two other operators also sat idle, but from time to time they would cast uneasy glances toward the guidance officer.

Incidentally, we should note that on a previous occasion those same operators, in a different, less stressful situation, immediately responded to more complicated malfunctions and quickly corrected them.

In this instant such an emotional state in the men caused excessive tension connected with an important training mission, and inadequate psychological conditioning prevented them from coping with their nervousness and overcoming the barrier of confusion and indecision. But after several special drills and talks by their commanding officer on how they should conduct themselves in such cases, they began performing with greater confidence when unexpected and complicated situations arose.

Incidentally, experienced methods experts officers S. Rogatin, A. Blokhin and others believe that talks which instill confidence in specialists and relieve emotional stress before an important practice drill or tactical exercise are a highly effective means of keeping men in an enthusiastic and aggressive mood. And this is indeed so. At a certain tactical exercise the subunit under the command of officer N. Gerasimchuk was to take down equipment at night, execute a lengthy march, and prepare to repulse an "aggressor" air attack on an extremely tight timetable. The problem was additionally complicated by the fact that there were heavy, gusty winds, as well as a heavy downpour.

Realizing that accomplishment of the mission involved considerable physical and psychological stresses, officer Gerasimcuk briefed his men on the situation and reminded them that the end result would depend on the performance of each of them. He then related a vivid episode from the unit's combat history and called upon the men to emulate their regiment's combat veterans.

The commanding officer's fervent, emotional words brought past battles to life. And apparently many of the men imagined themselves on the field of battle and strongly sensed the deep, inseparable bond with the fighting men of older generations. The missile crewmen performed resolutely, with initiative, and earned a high mark.

In practice, however, one also encounters other facts. A certain officer, seeking to make his men feel greater responsibility for success in accomplishing a difficult training mission, clearly loses his sense of measure in his constant instructions, admonitions, etc. Experience has demonstrated that excessively boosting stress and pulling people's nerves taut can lead to results exactly opposite those which are desired.

Once I observed the following at a range. Shortly before the firing began the battalion commander gave his men a thorough briefing and gave them some parting words. Just before the firing proper, the battery commander, the platoon commander, and the Komsomol committee secretary decided to make their contribution toward pumping up the missile crewmen. They kept reminding them about how serious the forthcoming test was and about the mistakes they had made during previous firings. One could see from the men's mood that the admonitions had gone beyond measure.

When the test proper began, the crew led by Sr Sgt V. Korolev had great difficulty meeting the performance standard, although they had quite recently repeatedly surpassed it by 10-12 percent on the same range.

The reason for what happened is simple. The missile crewmen had been put in too emotional a state; employing athletic terminology, they had "burned out" before the race started.

At this point we should recall the experience of wartime combat commanders and political workers! Prior to launching an attack officers would employ the instrument of the encouraging word, which instilled confidence in success and helped lessen tension, enabling the men to think through their sequence of actions and to eliminate and reduce excessive agitation.

Practical realities demand of today's commander and political worker thorough knowledge in the area of military psychology and the ability to apply this knowledge in practical combat training and indoctrination of subordinates. And many officers seek to keep up with the demands of the times.

I shall cite the experience of missile battery commander Gds Sr Lt A. Pitirimov. He is constantly working to deepen his knowledge of military psychology and skillfully organizes the combat training of missile crewmen. In the subunit they maintain a log recording psychological monitoring of the combat performance of leading specialists. In totaling up performance results the battery commander analyzes matters pertaining to psychological conditioning of his subordinates and gives them concrete recommendations on how to develop emotional-volitional stability in themselves. At every training drill they work on problems of personnel psychological conditioning.

It is indicative that in the course of performing mock combat firings the battery's missile crewmen did not feel any particular difference between the conditions created on the range and those in which they were accustomed to perform their daily training routine. In the most critical situations they displayed tenacity, composure, and great skill.

It is important to remember that the psychological qualities which are essential for combat, for victory, are shaped and toughened in the course of daily combat training. All training classes, drills, and exercises should be organized taking this into account.

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DOSAAF AND MILITARY COMMISSARIATS

DOSAAF ACTIVITIES PUBLICIZED

Construction at Tbilisi Naval School

Moscow SOVETSKIY PATRIOT in Russian 10 Nov 82 p 1

/Article by M. Nemirova, special correspondent of SOVETSKIY PATRIOT, Tbilisi: "Ahead of Schedule" under the rubric "On DOSAAF Construction Sites"/

/Text/ /The buildings of the DOSAAF Naval School are being erected in Tbilisi./ /printed in boldface/

Maj Gen Avn G. Naneyshvili, Chairman of the Georgian SSR DOSAAF Central Committee, declared: "Emissaries from Georgia's capital serve in various branches of service but unfortunately there are very few of them in the Navy, although many dream of linking their fate to the sea. In the new naval school young people and teenagers will, under the guidance of experienced coaches and instructors, be able to practice all forms of aquatic sports, and those wishing to improve their health will join body build-up groups."

The campus complex (academic building, indoor swimming pool, hotel) occupies an area of 2.5 hectares.

The builder of the complex is the SMU-8 /Construction and Installation Administration/ of the Tbilisi Industrial Construction Trust.

The combined-skills construction brigade of U. Buzariashvili includes R. Tsanava, a student at a construction technikum, concrete-layer and Komsomol member, as well as the experienced craftsmen S. Ter-Oganezov, a concrete-layer, the stone-mason T. Lobzhanidze and the installer V. Lakov. The brigade has started a "labor watch" /is working at a redoubled pace/ in honor of the 60th anniversary of the USSR and is each day overfulfilling its plan targets. This shock-work pace definitely guarantees that the brigade will fulfill with honor its pre-Jubilee pledges and complete the construction of the facilities in the fall of 1983.

Financial Planning Discussed

Moscow SOVETSKIY Patriot in Russian 10 Nov 82 p 2

/Article by A. Shiyanov, deputy chief, Financial Planning Administration, USSR DOSAAF: "Financial Planning"/

/Text/ To implement the decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning and Strengthening the Effect of the Economic Mechanism on the Increase in the Effectiveness of Production and Quality of Work," the bureau of the presidium of the USSR DOSAAF Central Committee has approved the Statute on Financial Planning in DOSAAF Committees.

This statute is based on the requirements ensuing from the decisions of the 26th CPSU Congress and other decisions of the party and government intended to elevate the level of planning as the central element in management and administration so as to adapt them to the requirements of the present, as well as to strengthen the effect of the economic mechanism on the effectiveness of production and quality of work.

The statute enhances the importance of five-year financial plans as the main form and basis of planning, emphasizes the strengthening of cost effectiveness and economical operation at all levels and specifies an improved structure of and procedure for the confirmation of the financial and operating plans of the Union-republic DOSAAF central committees and the DOSAAF sports and other organizations.

The statute is primarily oriented toward strengthening the management of financial and economic performance by further improving and refining financial planning as the organizational basis for funding all the activities of DOSAAF and promoting the initiative and creative activity of personnel at all levels.

The drafting of the plans should commence at the grassroots level--in the rayon (city) committees and school, sports and other organizations of DOSAAF. Annual financial plans as well as plans of activities should be drafted on the basis of the targets and economic norms of the five-year plans, and their indicators should be not below the targets for the concerned year in the five-year plan. Counter plans adopted on the initiative of collectives and linked to material and manpower resources are to be incorporated in the annual plans. The drafting and examination of plans should be done with the broad participation of the collectives of DOSAAF committees and organizations. Utilizing the possibilities of socialist competition and internal potential, they can adopt counter plans exceeding the targets of the five-year plan.

Those taking part in the compilation of plan documents and conduct of broad economic analyses should include not only the personnel of the economic and accounting services but also other officials at DOSAAF committees and organizations who handle financial and economic activities.

Proceeding from the task of assuring the stability of the approved plans, the statute curtails the possibilities for their downward revision below the level of actual fulfillment.

The statute provides for such a procedure for determining the income part of financial plans as would assure a further increase in economic performance, bring plans closer to the target requirements, uncover potential, promote the adoption of counter plans and higher socialist pledges. It also specifies the procedure for assessing plan fulfillment.

To assure the organized and prompt formulation of financial plans and plans of activities as well as their fulfillment, the DOSAAF committees and organizations should draft plans of measures covering all the stages of the work on the formulation and approval of the plans and identifying the officials responsible for their implementation.

These measures should also assure the implementation of the income part of the financial plans, a profitable and more economical performance of all administrative echelons, and reductions in the operating cost of the administrative apparatus. Further, they should assure an economical and pertinent spending of funds based on a more conservative approach as well as improvements in the accounting and monitoring of the spending of financial and material resources.

The statute defines the organization of financial planning activities at the Union-republic DOSAAF central committees and kray and oblast DOSAAF committees and specifies the tasks, obligations and rights of planning departments (economists).

To analyze the statute, the Financial Planning Administration at the USSR DOSAAF Central Committee has organized and conducted training-methodological seminars of chiefs of planning departments (economists) from the Union-republic DOSAAF central committees and kray and oblast DOSAAF committees. These seminars discussed the principal aspects of the statute as regards the organization and implementation of financial planning work and the drafting of financial and activity plans for 1983 by the DOSAAF committees and organizations, with the drafts of such plans to be submitted to the USSR DOSAAF Central Committee in accordance with the new statute. Most of the drafts of financial and activity plans have been prepared and submitted to the USSR DOSAAF Central Committee promptly and competently. A few of the financial plan drafts, however, were submitted behind schedule and their quality was low. They included incompletely processed financial planning documents and some of their indicators were even lower than higher with respect to those envisaged in the five-year plans. Certain plan drafts were prepared without a thorough analysis of plan documents at the subordinate organizations and were not always substantiated with appropriate calculations.

The USSR DOSAAF Central Committee has examined the drafts of financial and activity plans of the Union-republic DOSAAF central committees and kray and oblast DOSAAF committees and, on this basis, it has approved the basic indicators for the drafting of 1983 financial and activity plans of these committees.

In the adopted decree the bureau of the presidium of the USSR DOSAAF Central Committee has stipulated tasks consisting in that the Union-republic DOSAAF central committees and kray and oblast DOSAAF committees should, on guiding themselves by the new statute, organize at a higher level the drafting of financial and activity plans at their subordinate organizations and committees and tighten the responsibility of their heads for the coordination, balancing and ambitiousness of plan targets, their stability and their unconditional fulfillment.

The tasks of the heads of DOSAAF committes and organizations also include organizing the economic training of leading employees and the special training of financial-planning staff of the DOSAAF. The corresponding guidelines have been approved by the chairman of the USSR DOSAAF Central Committee and dispatched to DOSAAF committees and organizations. In addition to specific economic matters, in the 1982/1983 training year priority should be given to analyzing the requirements of the new financial planning statute, which represents the principal reference document for the organization and conduct of cost-effective operations and financial planning work at Union-republic DOSAAF central committees and oblast and kray DOSAAF committees.

Improving Military Training

Moscow SOVETSKIY PATRIOT in Russian 10 Nov 82 p 3

[Article by I. Sevryukov, initial military training inspector, UkSSR Ministry of Agriculture: "Organize Instruction Better: Initial Military Training of Youth"]

[Text] In the system of the initial military training of youth the most complex and laborious part is the three-day field exercises. The effectiveness of these exercises is the greater, and training time is spent the more productively, the more tenaciously the principle of training future fighting men with allowance for military requirements is followed. This means that field exercises should be conducted under conditions maximally close to real combat, in a complex and difficult situation. They should contribute to the physical toughening of the future fighting men and imbuing them with high moral-will qualities.
Some experience in the successful conduct of field exercises has been gained by the educational establishments of the Ukrainian Ministry of Agriculture. At a number of our technikums five-day and--this year--three-day field exercises were conducted jointly with rayon secondary schools at field camps under the guidance of public education agencies. This entails the drafting of unified planning documents for the preparation of exercises, a more operative solution of the questions of selecting training areas, methodical preparation of unit commanders, the organization and conduct of mass sports activities and the provision of standard clothing to the trainees.

But even despite all these evident advantages this method of conducting field exercises has its disadvantages. As known, the basis of field exercises is tactical training, the inculcation of proper techniques of conduct in the individual soldier on the battlefield. To attain satisfactory results, each platoon should be provided with its own specially adapted terrain sector. If, say, students from three or four schols arrive at a field camp, it is still possible to select the exercise area. But what if students from eight or 10 schools and technikums arrive?

We believe that setting up a field camp for students from all the schools and technikums in a rayon is advisable only if their total number is limited and if specially adapted terrain is available and it is possible to provide the trainees with adequate material and technical resources.

Experience shows that the best results are achieved when field exercises are conducted with the patronage assistance of a regular military unit. An example of a practical and creative solution of this problem may be provided by the Nemeshayevskiy Sovkhoz-Technikum (director V. Kostenko, military training commander V. Peschanskiy).

How should the exercises be conducted this year? Their preparation has begun early. The commanding personnel of the Kiev military garrison were consulted on all aspects of the deployment of trainees and the conduct of training and political-educational work as well as sports activities. An area provided with trenches, wooden barriers and other obstacles has been allotted for the exercises along with means of simulation and rifles. Military personnel became commanders of trainee companies, platoons and squads.

Of interest also are the procedures for conducting exercises with future fighting men. Every tactical technique or operation was first analyzed in parts and then as a whole. After learning a particular exercise the trainees were graded for performance. Those performing the exercise poorly were given additional training. This resulted in the predominance of a spirit of competitiveness and healthy rivalry in training and during tests.

The trainees also benefited greatly from visits to the outstanding company at which they familiarized themselves with the life of the personnel and armaments and combat equipment.

The field exercises of other technikums of our ministry also were conducted on military facilities and just as effectively. The advantages of this approach are obvious. Of course, it also entails some problems. Unfortunately, certain school directors do not want to burden themselves with extra work and pay insufficient attention to the organization of field exercises, transferring the onus to the shoulders of the military training directors at schools. This concerns the Novochartoriyskiy, Rogatin, Tarashcha, Migeyskiy, Sumy, Izmail, Borshchev and Krasnograd technikums.

Inspection findings also show that many military training commanders at schools not infrequently substitute the tactical training of future fighting men with story-telling and all kinds of simulation.

Initial military training is a highly important component part of preparing young people for service in the army and navy. The manner in which we train them in the tactical and military-technical techniques and imbue them with moral-political, psychological and physical qualities largely affects the combat readiness of troops. This is how we should approach the organization and methods of conducting field exercises, on steadily exploring new forms and methods of training future fighting men.

DOSAAF Regional Conferences Discussed

Moscow SOVETSKIY PATRIOT in Russian 21 Nov 82 p 1

/Unsigned article: "On the Course of Rayon Conferences" under the rubric "At the USSR DOSAAF Central Committee"/

/Text/ A conference at the administration of organizational mass work and military-patriotic propaganda at the USSR DOSAAF Central Committee discussed the first results of the rayon and city report-and-election conferences. Announcements were made by V. Zaykin, department chief at the administration, and A. Babokhin, deputy chairman of the Belorussian SSR DOSAAF Central Committee. The participants in the discussions were personnel of the USSR DOSAAF Central Committee who had been present at a number of these conferences.

It was pointed out that, under the guidance of party and Soviet organs, most of the conferences have been occurring at a high organizational and ideological level.

The reports by the committees and inspection commissions and comments by the delegates analyzed the fulfillment of the tasks posed by the CPSU Central Committee and Soviet government to the DOSAAF; the accomplishments in military-patriotic, training and sports work; and the fulfillment of socialist pledges in honor of the 60th anniversary of the USSR. At the same time, causes of shortcomings in the performance of rayon and city committees were uncovered, and the culprits were named and criticized. The delegates outlined ways of enhancing the militancy and vigor of the work of primary organizations, non-T/O departments and commissions at committees and sports and technology clubs.

The conferences were fruitful wherever the committees, basing themselves on the aktiv, had prepared them thoroughly and assured the precise observance of the DOSAAF Statute and the instructions on conducting the elections to leading posts. Credit should be given to the organizations which used the conference premises to conduct at the same time exhibitions of means of visual propaganda, sports equipment and wall newspapers of the defense collectives, and which show films on military-patriotic topics. All this contributes to propagandizing the tasks of the DOSAAF and disseminating all that is positive in the life and activities of the rayon organizations of the DOSAAF.

The comments at the CPSU Central Committee also pointed to major omissions in the conduct of certain conferences. Committee reports did not uncover with sufficient acuity the causes of shortcomings in the military-patriotic education of youth, in mass-defense, training and sports activities, and in the management of primary organizations. Little attention has been paid to problems of improving the work of inspection commissions.

Some of the speakers at the local committee conferences confined themselves to enumerating the positive aspects without assessing in detail the style and methods of work of the heads of committees and inspection commissions. They did not touch upon the problems of improving the quality and increasing the effectiveness of the preparation of future and current-year conscripts for service in the Soviet Armed Forces. Insufficient mention was made of the further strengthening of the discipline of performance by all committee functionaries and of the personal responsibility of the members of committe presidiums and heads of non-T/O departments, commissions and sections for a conscientious fulfillment of the lofty tasks entrusted to them. At a number of conferences few women and Komsomol members displaying zeal for mass-defense and sports activities were elected to membership in committees and inspection commissions.

At the Central Committee conference it was mentioned that certain kray and oblast DOSAAF committees are not directing efficiently the report-and-election campaign and fail to react promptly to omissions by rayon and city committees in preparing the conferences by simply limiting themselves to general recommendations.

Thus, for example, the Vladimir Oblast committee did not attend to preparing properly one of the oblast's first conferences of the DOSAAF in Leninskiy Rayon of the city of

Vladimir. As a result that conference took place without any marked activity by the delegates and in the absence of any principled criticism of major omissions in the rayon committee's performance.

The deliberations of the Central Committee conference were summed up by A. Mamayev, chief of the department for organizational mass work and military-patriotic propaganda under the USSR DOSAAF Central Committee.

It is an urgent task for the Union-republic DOSAAF Central committees and the kray and oblast DOSAAF committees to generalize and propagate all positive experiences in the preparation and conduct of conferences and outline and implement measures to avert shortcomings and assure a high organizational and ideological level of the entire report-and-election campaign.

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CSO: 1801/087

DOSAAF AND MILITARY COMMISSARIATS

BRIEFS

YEGOROV ADDRESS--An all-union month of mass defense work in honor of the 65th anniversary of the Soviet Army and Navy will start in the country 23 January. A soiree in Moscow today was devoted to the forthcoming event. Navy Admiral Yegorov, chairman of the DOSAAF Central Committee, spoke at the soiree, stressing that the month which is being held on the threshhold of the Ninth All-Union Congress of the organization should be an examination of the activity of the defense society in fulfilling the tasks raised by the 26th CPSU Congress. [Text] [LD140124 Moscow Domestic Service in Russian 1830 GMT 13 Jan 83]

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PERCEPTIONS, VIEWS, COMMENTS

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The articles by Soviet authors and the chronicle are based on materials in the foreign press. This issue containes illustrations from "Jane's," the book "Report on Adequacy of Autralian Ports," and the following journals: AVIATION WEEK AND SPACE TECHNOLOGY, AVIATION AND MARINE, ARMADA INTERNATIONAL, ARMIES AND WEAPONS, DEFENSE, INTERNATIONAL DEFENSE REVIEW, NATO'S 15 NATIONS, NAVY INTERNATIONAL, PROCEEDINGS, SCIENTIFIC AMERICAN, FLIGHT INTERNATIONAL, FLUG REVUE, AIR INTERNATIONAL, and AIR FORCE.

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CSO: 1801/086

PERCEPTIONS, VIEWS, COMMENTS

COMMENTARY ON PRESENT MILITARY-POLITICAL SITUATION

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 82 (signed to press 12 Oct 82) pp 3-6

[Unattributed lead article: "October's Powerful Stride"; material omitted deals with successes since the Revolution]

[Excerpt] But there also exists another directional thrust in international politics, grounded on continuing the arms race and escalating it. This is attested by practical actions on the part of militarist forces, particularly in the United States, and a sharp intensification of the aggressiveness of their course of policy. In recent years the U.S. Government has departed from a policy of détente and has shifted to a position of confrontation and escalating tensions in international relations. In the area of foreign policy President Reagan advocates confrontation with the socialist countries and seeks to consolidate the course of policy aimed at "rearming America" and to end the present approximate parity in strategic arms with the aim of achieving military superiority over the USSR.

In the face of the consistent policy of the Soviet Union and under pressure by the powerful antiwar movement which is in progress in the United States and other Western countries, Washington agreed to a USSR proposal to resume talks on strategic arms limitation and reduction. Judging from statements made by the U.S. President, however, the U.S. position is totally one-sided. It is directly aimed at doing detriment to the security of the USSR and at the same time gives Washington a free hand to carry out U.S. strategic arms buildup programs. The White House should know, however, that it will not succeed in achieving superiority in present-day conditions. Comrade L. I. Brezhnev has clearly stated in this regard: "We shall make no agreement which would give a unilateral advantage to the United States. There should be no illusions about this."

Imperialist advocates of a policy "from a position of strength" are unrelenting in their efforts to reverse the current development of international relations. Just in the last 6 months there have been a great many examples confirming this conclusion. In May the U.S. President signed a directive specifying the deployment of MX intercontinental ballistic missiles designated for launching a preemptive nuclear strike. In a number of European countries construction has already commenced on launching sites for deployment of Pershing II and cruise missiles. The United States is continuing work on development of sea-based Trident II missiles, as well as on the mass production of neutron and chemical

weapons. At the NATO Council summit meeting in June, U.S. ruling circles forced their own position on their allies in matters of arms limitation and disarmament, a position which ignores the fundamental principle of equality and equal security and which is directed toward shifting the balance of power in favor of the West. It is evident from the documents adopted at this meeting that NATO leaders intend to continue the policy of further buildup of military potential, escalation of the arms race, and interference in the domestic affairs of other countries.

The NATO member countries are resorting with increasing frequency to the use of force and stirring up military conflicts, which threaten world peace, demonstrating the aggressive nature of the NATO alliance. With the Reagan Administration's direct support of the colonial aspirations of British ruling circles, the British Government undertook military actions against Argentina over the Falkland Islands (Malvinas). U.S. support alone enabled the rulers of Israel, who cynically ignore all UN resolutions demanding that they cease Israel's militarist, expansionist actions, to carry out brazen, predatory aggression against sovereign Lebanon.

The most reactionary circles in the West, and the United States in particular, are attempting to place an obstacle in the path of progressive changes in the world and to reclaim the role of arbiters of people's destinies. They pursue the aim of weakening and shattering the socialist community. Ideological preparations for war directed against the forces of socialism, peace and democracy, extensively undertaken by the imperialists, are exerting a sharply negative effect on the international political climate.

Standing in resolute opposition to the aggressive schemes of imperialism is the world of genuine socialism, which pursues a consistent, purposeful course of policy aimed at defending world peace, the democratic achievements of peoples, their independence and sovereignty. In these conditions the Communist Party and Soviet State consider it their primary task to do everything possible to strengthen defense and to increase the vigilance of Soviet citizens. As USSR Minister of Defense MSU Comrade D. F. Ustinov stressed, "the defense might of the Soviet State is a most important factor in strengthening peace and in restraining the imperialist aggressors."

Today our army and navy possess everything they need in order successfully to carry out their assigned tasks. Their technical equipment, organizational structure, and training of personnel are fully in conformity with today's requirements. The USSR Armed Forces are performing their duty, which consists in defending socialism and peace, marching shoulder to shoulder with the brother armed forces of the member nations of the Warsaw Pact Organization.

In the present complex international situation, Soviet servicemen see their patriotic and internationalist duty as tirelessly working to increase combat readiness and vigilance, strengthening discipline and organization. They are prepared to offer a devastating rebuff to all fanciers of military adventures and permanently to dampen their enthusiastic desire to encroach upon the homeland of the Great October Revolution.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTARY ON FALKLAND ISLANDS MILITARY OPERATIONS

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[Article, published under the heading "General Military Problems," by Lt Col A. Aleksandrov and Capt 3rd Rank S. Grechin: "The Falklands: Recidivism by British Colonialism (Some Lessons from the Anglo-Argentine Conflict)"]

[Text] In March-June 1982 the entire world was following developments in the military conflict in the South Atlantic between two capitalist nations. In the dispute over the Falkland Islands (Malvinas), which are situated 8000 miles (almost 15,000 kilometers) from British shores, the British Government took the path of open use of military force against Argentina. This once again graphically confirmed one of the important points of the Marxist-Leninist interpretation of the process of international development: wars within the world capitalist system are a genuine possibility connected with a growth in persisting interimperialist conflicts and an endeavor on the part of the leading capitalist countries to settle many problems from a "position of strength." The conflict has once again convincingly demonstrated that it is not a mythical "Soviet military threat" but rather the aggressiveness of imperialism, embodied primarily in the activities of U.S. and NATO bloc ruling circles, which constitutes a genuine threat to world peace.

Now that the military operations have ended, hundreds of British and Argentine soldiers lie buried in graves or on the ocean floor, while the wounded, mutilated and frostbitten have been dispatched to military hospitals, the attention of foreign military experts is increasingly concentrating on an analysis of the causes and consequences of the recent events in South America.

The principal cause of the conflict was a disinclination on the part of the British Government to abandon its colonial policy. In the opinion of Western observers, the sending of expeditionary forces to the Falkland Islands also represents a desperate attempt by the Thatcher Government and the Tory leaders to restore by any means possible the loss in political strength within Britain and an endeavor artificially to whip up chauvinistic passions and to push into the background acute socioeconomic problems and the realities of British life: unemployment, inflation, and other chronic ills of the economy.

The question of sovereignty over the Falkland Islands (Malvinas) has been repeatedly discussed at United Nations General Assembly sessions. Pursuant to a 1965 UN resolution, bilateral British-Argentine talks on decolonization of these islands began. From the very outset the Falklands problem was for Argentina a matter of defending national sovereignty, while for Great Britain it was a question of maintaining colonial possessions.

At the beginning of the 1980's progress toward resolving this problem stalled, especially following reports that there were substantial petroleum reserves in the vicinity of these islands, including the continental shelf, at depths of 1000 meters. The islands became not merely a disputed territory but an object in the struggle for new sources of strategic raw materials. Great Britain's endeavor to maintain control over the Falkland Islands is also due to their important military-strategic position on sea-lanes from the Atlantic to the Pacific and to the coast of Antarctica. In addition, U.S. and NATO leaders are not ruling out the possibility of establishing in the South Atlantic a new aggressive bloc, with these islands serving as a principal base.

The readers will recall that the conflict between Argentina and Great Britain began in the middle of March 1982 after a group of Argentine workers landed on the island of South Georgia and raised the Argentine national flag. After this, events developed as follows. On 2 April a force of Argentine warships landed a small force on South Georgia and subsequently took over control of the Falklands. The British garrison of Marines, numbering approximately 80 men, suffering no casualties, was transported to Uruguay. That same day the British Government broke diplomatic relations with Argentina. The UN Security Council, in Resolution 502 dated 3 April 1982, appealed to both parties to cease hostile actions, withdraw Argentine troops from the islands, and commence peace talks. In these conditions, however, British leaders took steps aimed at settling this problem by force to their own advantage. The majority of Britain's allies in NATO and the European Economic Community supported this course of policy embarked upon by the Tory Government, placed an embargo on shipments of weapons and combat equipment to Argentina, and took other economic sanctions.

As we know, within the framework of the Organization of American States the United States is bound to Argentina by treaty obligations of mutual assistance. The Reagan Administration, however, openly took the side of the British aggressors, offering them political, economic, and military support. Acting through Great Britain, it sought to "teach a lesson" to the Latin American countries and to show them their place in the imperialist world order which Washington was vainly attempting to reestablish.

According to reports in the foreign press, on 5-7 April Britain commenced large-scale deployment of its expeditionary forces designated for the South Atlantic. Prime Minister M. Thatcher boasted: "The speed with which these forces were gathered together will go down in the annals of British military history." Overall direction of preparations for the punitive action was handled by First Lord of the Admiralty G. Fieldhouse, headquartered at Northwood, while immediate direction of operations in the conflict area was handled by the commander of the 1st Surface Flotilla, Rear Admiral D. Woodward, with

headquarters on board the ASW carrier "Hermes." According to information in the foreign press, the British expeditionary forces included more than 40 major combatants (including the ASW carriers "Invincible" and "Hermes," 2 torpedo-armed nuclear submarines, 2 diesel-powered submarines, 9 guided missile destroyers, as many as 20 frigates, including guided missile ships), 8 amphibious warfare ships, more than 40 auxiliaries (the majority were chartered or requisitioned civilian cargo and passenger ships), and approximately 40[1] Sea Harrier and Harrier-GR3 V/STOL aircraft. The landing force (Army and Marine troops) totaled more than 9000 men.

The British forces used a U.S. air force base on Ascension Island (Figure 1) [not reproduced] as a forward supply base, to which Hercules and VC-10 military transports flew requisite supplies (a total of more than 400 aircraft runs were flown). Here the British warships replenished stores and then, steaming in detachments, proceeded toward the Falklands. Vulcan strategic bombers and Nimrod shore-based patrol aircraft, escorted by Victor tanker aicraft, flew combat missions from this base.

In response to Great Britain's actions, as was reported in the foreign press, Argentina began accelerated preparations for war. A Southern Theater Command, with headquarters at Comodoro Rivadavia, and a South Atlantic Maritime Theater Command with headquarters at Puerto Belgrano, were established by 10 April. Overall direction of military operations by Argentine forces was assumed by the general staff, headed by L. Galtieri, who was also serving as the country's president at that time. General M. Menendez was placed in command of forces on the Falkland Islands, which had been declared Argentina's 24th province (he also served as governor of the islands).

Following a partial mobilization, redeployment of some army and air force units, as well as reinforcement of the garrison on the Falklands, Argentine forces in the Southern Theater totaled approximately 20 warships (including the multipurpose carrier "Veinticinco de Mayo," the cruiser "General Belgrano," 4 diesel-powered submarines, 5 guided missile destroyers, and 3 guided missile frigates), approximately 20 auxiliaries, more than 150 combat aircraft and as many as 80 transport aircraft. Army, air force and naval strength totaled 80,000 men. Approximately 11,000 men were air- and sealifted directly to the Falklands -- an infantry brigade, 2 airborne and 2 mountain infantry regiments, a reinforced marine battalion, as well as AMX-13 light tanks and armored personnel carriers.

Having decided to settle the conflict with force, the British cabinet made the decision to establish effective 12 April a 200-mile "war zone" around the Falklands and South Georgia. In accordance with this, all Argentine ships and vessels found within the "war zone" were to be considered hostile and were liable to attack by British naval forces. Prior to arrival of the first detachments of British warships in the conflict area, patrolling in the "war zone" was handled by nuclear submarines operating independently.

According to information in the foreign military press, British command authorities were planning to attack first, commencing the operation to recapture the islands with seizure of South Georgia, which was taken on 25 April by

a heliborne assault force numbering approximately 200 men. Landing of the assault force was preceded by preparatory rocket and artillery bombardment and delivery of a reconnaissance team to the island by submarine 3 days prior to the operation. The Argentine garrison (approximately 150 men) surrendered without serious resistance. Two British Lynx helicopters attacked the Argentine submarine "Santa Fe" (of the "Balao" class) while surfaced at South Georgia and sunk it with AS-12 air-to-surface missiles.

In order to demoralize Argentine armed forces personnel and to demonstrate the potency of their weapons, a British nuclear submarine (armed with the latest Tigerfish torpedoes) sank the cruiser "General Belgrano" outside the 200-mile "war zone." According to reports in the foreign press, intelligence on the location of the Argentine cruiser had been received by the British from U.S. intelligence, the information having been obtained from reconnaissance satellites.

Subsequently Great Britain, continuing to build up its force grouping in the South Atlantic, concentrated its main efforts on a 3-week naval and air blockade of the Falklands. In order to prevent the airlifting of troops and supplies, a Vulcan strategic bomber and Sea Harrier aircraft flew several strikes on the runways at the Port Stanley and Goose Green airports, dropping 1000-pound high-explosive bombs and cluster bombs.

During the blockade of the islands British naval forces sank, in addition to the ships mentioned above, a patrol craft and two auxiliaries, and damaged several patrol boats and vessels. This forced the Argentine command authorities to give up shipping by sea and to withdraw their ships into coastal waters.

The Argentine Navy virtually ceased participation in combat operations although, as is noted in the Western press, it had also not offered any opposition to the British prior to that time.

The Argentine Air Force was being utilized most intensively during this period, flying mass attacks from the mainland against British warships (in waves of up to 24 aircraft each). These air attacks resulted in sinking the guided missile destroyer "Sheffield" (Figure 2) [not reproduced] -- one of Britain's most modern warships, which had cost 250 million dollars (a single hit by an Exocet antiship missile costing 200,000 dollars, fired by a Super Etendard). Subsequently Britain lost the guided missile destroyer "Coventry," the guided missile frigates "Ardent" and "Antelope," as well as the containership "Atlantic Conveyor."

In conformity with the decision of the British command authorities, at nightfall on 21 May a force totaling 5000 men[2] was put ashore by landing craft and helicopter (figures 3 and 4) [not reproduced] in two waves, in the vicinity of San Carlos (the northwestern part of East Falkland Island); weather conditions

were poor (sea state 3, wind velocity 10 meters per second, air temperature as low as -3°C, rain, snow squalls, fog). On the following days the British also captured the communities of Port Darwin and Goose Green and proceeded to advance in the direction of the islands' administrative center -- Port Stanley, where the bulk of the Argentine garrison was concentrated. Employing Scorpion light tanks, 105 mm howitzers, 81 mm mortars, and Milan antitank missiles, by 2 June the British landing force had succeeded in completely sealing off the opposing Argentine troops. Simultaneously special subunits were engaged in psychological warfare against the personnel of the Argentine garrison, employing radio broadcasts and leaflets to persuade them to surrender.

On 8 June the British put ashore an additional landing force in Fitzroy Bay; during the landing Argentine aircraft sank an amphibious landing ship. A decisive offensive against Port Stanley was mounted on 12 June, with air and naval gunfire support. Under the circumstances, on 15 June the Argentine garrison was forced to surrender.

Foreign military experts, devoting considerable attention to an analysis of the military operations in the South Atlantic, note certain specific features in the employment of individual branches of service and combat arms, particularly those which were employed most successfully.

The British Army and Marine units and subunits which took part in the conflict fought only offensive combat actions, which had been thoroughly planned out in order to avoid heavy casualties and equipment losses.

The British forces mounted aggressive offensive operations to seize beachheads on the islands only during hours of darkness, exploiting the fact that Argentine aircraft did not fly at night or in poor visibility. As a rule accomplishment of mission objectives would be completed in the morning hours. Landing forces were put ashore in areas which had been little defensively fortified by the Argentinians. Helicopters and landing craft were employed to carry troops ashore. Small diversionary forces were landed to prevent maneuver by Argentine troops and equipment; after accomplishing their missions, these diversionary forces would be returned by helicopter to the warships and amphibious warfare ships. Reconnaissance teams would be put down behind enemy lines 3 to 5 days prior to bringing a landing force ashore. They conducted reconnaissance, acted as artillery observers for naval gunfire, as well as acting as forward air controllers.

As a rule an attack would be launched after delivery of massive bombing and strafing attacks and artillery bombardment, primarily with the objective of capturing populated localities and commanding heights. Field artillery would deliver fire on Argentine troop dispositions, command posts, and fire positions. Adjustment of artillery fire would be accomplished from observation posts sited on commanding heights, or from helicopters. Aircraft would be guided to their targets by forward air controllers advancing with the ground units.

Foreign experts note the high degree of professionalism in the performance by British Army and Navy personnel, as well as British employment of helicopters to airlift troops and supplies, and extensive employment of automatic weapons with infrared sights, portable VHF/UHF radio sets, night vision devices and

special gear (thermal vests), which made it possible more easily to endure the harsh climatic conditions. As a deficiency they stress poor antiaircraft missile protection of army and marine ground units against air attack.

British naval forces played the principal role in preparation for and execution of the operation to seize the Falklands. British command authorities directed their main efforts toward assembling and dispatching to the conflict site a large force of various naval forces, naval aviation, and Marines. It took a total of 25-30 days to deploy the surface forces (12-14 days to reach Ascension Island, 3-4 days to replenish stores and form up into detachments of warships off this island, and 10-12 days for passage from Ascension Island to the Falklands). During passage to the objective area, all types of ship defense were organized. Nimrod aircraft also maintained surveillance of the routes to the destination area.

Following were considered to be the principal missions of British naval forces in the conflict area: gaining sea and air superirity, securing the approach of the landing force, and providing air and fire support to the ground troops during landing and fighting on shore.

Analyzing the course of military events, foreign military experts note that British naval forces in the conflict area included the most modern surface units and submarines (including nuclear), capable of fighting in foul weather, day or night. The logistical support system which was established, although complex, nevertheless enabled the navy to operate effectively in a remote region (the ratio of combatants to auxiliaries was approximately 1:1). At the same time it is stressed that British warships revealed inadequate capabilities to repulse attack by aircraft firing antiship missiles (ASM). Only guided missile frigates of the "Broadsword" class, armed with Seawolf antiaircraft missile systems, were capable of successfully engaging low-flying targets. The radar early warning system also did not function sufficiently effectively, which made it difficult to obtain timely warning of hostile air threats, especially low-flying aircraft, and led to losses of ships to air-delivered missile and bomb strikes.

A high degree of effectiveness against British ships and vessels was demonstrated by Argentina's Air Force, which was operating at its maximum combat radius from mainland airfields. French-built Super Etendard fighters carrying Exocet antiship missiles were used particularly successfully. According to reports in the foreign press, Argentina had received 5 (of 14 ordered) of these aircraft and as many as 10 missiles. As a rule the target would be approached by a pair of Super Etendard fighters at extremely low level. Simultaneously a supporting group of Mirage-3E and A-4 Skyhawk aircraft would executing a feinting maneuver at medium altitudes to draw off the British Sea Harrier fighters. After the airborne radar locked onto the target, the Argentine aircrews would fire Exocet missiles at a range of 20-40 km. A direct hit by an ASM sank the guided missile destroyer "Sheffield," and two missile hits sank the containership "Atlantic Conveyor," which was carrying aircraft on board (10 Sea King helicopters).

Conventional 1000-pound aircraft bombs were also effective when direct hits were scored. However, it was noted in the foreign press, some of these ran

right through the target ship without exploding. It was ascertained that in this case the bombing was done from extremely low altitudes and short range, which failed to provide the requisite minimum time to arm the fuze.

In addition to these facts, some substantial shortcomings are noted in the foreign press. First of all the Argentine Air Force failed to organize effective air reconnaissance. They utilized only visual reconnaissance data from the aircrews participating in an attack, and sometimes information obtained from the aircrews of C-130 military transports and civilian Boeing 707 aircraft.

British Air Forces involved in combat operations included one of two Vulcan strategic bombers (it flew just two missions from Ascension Island), which delivered conventional aerial bombs. The missions, which included from two to three midair refuelings, ran more than 12 hours, and they were little-effective due to poor bombing accuracy. In spite of the fact that British military leaders decided against further employment of these aircraft in the conflict, in the British Royal Air Force strategic bombers remained the sole means of delivering a surprise airstrike at a distance of more than 6000 kilometers. For this reason suggestions appear in the British press to postpone replacement of the Vulcan bombers with Tornado multirole tactical fighters.

Carrier-based Sea Harrier V/STOL attack aircraft were also successfully employed in the conflict (1000-pound aerial bombs, cluster bombs, and Sidewinder air-to-air missiles). From 2 to 4 Argentine aircraft were shot down in fighting off each combat mission flown by a pair of Sea Harriers. In the initial period of the conflict they were employed on patrol duty at maximum range from their carrier, but after the loss of two fighters they began to be employed only for close-in defense of the task force.

Great Britain demonstrated in the Anglo-Argentine conflict a capability quickly to form and move to a remote region a large military force equipped with the most modern weaponry. At the same time Western military experts note that a large part of these forces (warships, marine and paratrooper units) were assigned to NATO Joint Forces and that their redeployment to the South Atlantic significantly weakened the bloc's capabilities in the Northeastern Atlantic and the Northern European Theater. In connection with this, the United States is calling upon its NATO allies to be prepared in case of similar conflicts to replace lacking personnel and equipment and to meet their alliance obligations to the letter.

Modern passenger ships were employed for the first time to transport a large number of troops a great distance (the motorships "Canberra" and "Queen Elizabeth II," which carried 2000 and 3000 landing-force troops respectively), as well as the refitted containership "Atlantic Conveyor" for transporting aircraft (it carried up to 20 Sea Harrier and Harrier GR-3 fixed-wing aircraft, as well as helicopters).

Conduct of an amphibious landing operation with the employment of a large number of helicopters was decisive in the combat operations to capture the Falkland Islands. Achievement of success by the British forces was ensured by more modern weapons and combat equipment, by having better-trained personnel (in the estimate of foreign experts, 70 percent of NCOs and up to 50 percent of

enlisted personnel of British units in the Falklands had been "combat-toughened" in Northern Ireland), and by holding the operational initiative at all stages of the military operation. And yet during the conflict Great Britain lost 5 combatant ships (2 guided missile destroyers, 2 guided missile frigates, and an amphibious warfare ship), 1 auxiliary vessel (the containership "Atlantic Conveyor"), as many as 15 Sea Harrier aircraft, more than 20 helicopters, and approximately 250 men (most of these during the amphibious landing operation, due to the fact that Rapier antiaircraft missile systems were not promptly deployed while ground forces were being put ashore). In addition, the ASW carrier "Invincible" as well as 10 destroyers and frigates were damaged (four of these were disabled and left the conflict area). Britain's total cost of fighting the conflict was approximately 2.5 billion pounds.

The main reason for Argentina's defeat in the conflict, in the opinion of foreign experts, lies in the fact that it was unprepared for war, a poor level of training of military personnel at all levels (a large percentage of the enlisted personnel garrisoned on the island had served less than 1 year in the armed forces), and serious political and military miscalculations by the leadership. In many indicators the correlation of forces favored Argentina, but this advantage was not utilized due to a lack of adequate decisiveness and purposefulness in troop command and control. Total casualties and losses sustained by Argentina's forces, according to figures in the foreign press, were as follows: 2 warships (a cruiser and a submarine), a patrol boat and 2 auxiliary vessels, as many as 35 warplanes and 10 helicopters, and more than 600 killed.

Some experience was also gained in the course of combat operations in employing certain modern weapons. Exocet antiship missiles (of French manufacture) were successfully employed at the first stage of combat operations; subsequently, however, they proved less effective due to electronic countermeasures and Seawolf antiaircraft missiles (during an attack on the British carrier "Invincible" by two Exocet antiship missiles, both were destoyed by Seawolf missiles fired by escort ships).

It was also discovered that British warships possessed inadequate survivability; low-melting and combustible materials are extensively employed in hulls and superstructures, while firefighting capabilities proved ineffective.

The Anglo-Argentine conflict, which lasted approximately 3 months, ended without removing the basic causes which impelled the opposing sides to fight an undeclared war. The question of sovereignty over the Falkland Islands (Malvinas), in the opinion of foreign observers, will continue to plague Anglo-Argentine relations and may be the cause of military conflicts in the future. The Argentine Government has declared its intention to continue persistently seeking to exercise its legitimate right to possess these islands.

FOOTNOTES

1. An additional up to 20 Harrier aircraft were en route to Ascension Island and did not participate in combat operations -- Ed.
2. This figure includes the assault forces delivered to Port Darwin and Goose Green -- Ed.

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COMMENTARY ON U.S. FOREIGN, MILITARY POLICIES

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[Article, published under the heading "General Military Problems," by Candidate of Historical Sciences Lt Col G. Mel'nikov: "The United States: Counting on Reactionary Regimes"]

[Text] In the global contest with the socialist world, aggressive U.S. circles assign an important role to developing countries. They view them as a source of raw materials resources, an object of economic exploitation by Western monopolies, and as a potential ally in any military conflict.

Today, in conditions of growing U.S. dependence on supply of oil and other raw materials from the so-called "third world," Washington is extremely concerned by the social and political changes taking place here. "The strengthening of the independence of the liberated countries is not to the imperialists' liking," it was noted at the 26th CPSU Congress. "They are attempting by thousands of ways and means to bind these countries to themselves, in order to gain greater control of their natural resources and to use their territories in their own strategic schemes."

In the struggle against revolutionary and national liberation forces in Asia, Africa, and Latin America, U.S. ruling circles are counting heavily on reactionary dictator regimes, which are implementers of pro-West policy and bases for the Pentagon in the national liberation zone. The role assigned to them has not remained constant but has transformed as the tactics of imperialism toward peoples struggling from freedom have changed.

Beginning in the 1970's, every U.S. administration has been faced with an acute task -- to formulate its own "line of conduct" in regard to the liberated countries. At the beginning of the last decade, following its defeat in Vietnam, the United States advanced the so-called "Nixon doctrine." It reflected a U.S. desire somewhat to reduce the Pentagon's military activeness in the developing countries and thus to neutralize the wave of resentment caused by openly repressive actions by the U.S. military. This doctrine essentially consisted in giving comprehensive assistance to pro-American reactionary regimes, which were charged with the brunt of the struggle against peace-loving peoples. The collapse of a number of antipopular dictatorships in the 1970's indicated,

however, that no support by Washington, even the most extensive support program, can guarantee the survival of such regimes wherever peoples have risen up resolutely in struggle for their independence.

Therefore since the second half of the last decade one has again observed in U.S. policy a shift to direct U.S. participation in crushing national liberation movements. One reflection of this policy was the "Carter Doctrine," which proclaimed the Near East and the Persian Gulf zone to be a "region of vital U.S. interests." Within the framework of this doctrine, for example, during the U.S.-Iranian crisis Washington embarked upon a large-scale buildup of naval power in the Indian Ocean, directed primarily against Iran. The United States began establishing "rapid deployment forces," one of the missions of which is to guarantee to the United States and other imperialist nations access to sources of oil in the Near and Middle East.

At the same time the "Carter Doctrine" devoted considerable attention to the question of relations with reactionary regimes, which were viewed as bridgeheads of U.S. imperialism in the developing world. It is true, as was noted in the foreign press, that the Carter Administration did encounter certain difficulties in aiding them. Advancing as the ideological basis for its foreign policy the concept of "struggle for human rights," the Democratic administration was from time to time forced to demonstrate to the world community a pretense of U.S. faithfulness to the proclaimed slogan. This sometimes forced Washington to limit support of the most repugnant dictatorships and to issue a formal condemnation of their repressive policies, which sometimes caused tensions in relations between the two countries.

With the Reagan Administration's accession to the White House, the militarist aspect became intensified in the zone of national liberation. This change was a result of implementation by U.S. ruling circles of a general policy of escalating international tensions, stepping up military preparations, and employing coercive methods to settle complex problems between nations. U.S. leaders openly stress in their numerous statements that the struggle against the national liberation movement is a component part of the confrontation with "world communism." In the estimation of foreign experts, problems pertaining to the global contest with the socialist world, and particularly with the Soviet Union, have gained priority over all other aspects of U.S. policy in the developing countries. The White House has advanced as ideological substantiation of its new policy the concept of "struggle against international terrorism," according to which national liberation movements are viewed as "terrorist," while the Soviet Union and the other socialist countries which assist peoples struggle for their independence are accused of supporting "international terrorism."

The toughening of Washington's policy toward developing countries also affected U.S. relations with reactionary regimes. The Reagan Administration no longer continued the propaganda statements of its predecessors, which had camouflaged the aggressive nature of U.S. foreign policy. Emphasis was placed on overt expansion of assistance to antipopular dictatorships supporting the United States. The U.S. newspaper NEW YORK TIMES acknowledged that "President Carter's policy on human rights, spread of nuclear technology, economic relations with developing countries, and limiting sale of arms to these countries

has begun playing a less important role, and at the same time the Republicans have placed greater stress on signing military agreements with pro-American regimes in the third world and on improving relations with them."

The Reagan Administration resorted to an artless device in order to disavow any moral responsibility regarding more active ties with reactionary dictatorships. U.S. delegate to the United Nations Kirkpatrick stated in one of her addresses that, in the opinion of the U.S. Government, there exists a profound difference between "totalitarian" states, which demand of their citizens active support of official doctrine, and "authoritarian" states, which are content with their passive submission. Washington is presently supporting, however, the fascist dictatorship in Chile which, although called a "repressive regime," is designated as merely "authoritarian." This concept is also used by the present administration to justify support of the Republic of South Africa. The White House counts Pakistan and South Korea in particular among "authoritarian" nations in Asia. They are now no longer publicly castigated; every effort is made to strengthen the position of these regimes within their own countries in face of broad resentment of their repressive policies by the population. The United States views precisely the possibility of weakening of such dictatorships from within, as was the case in Iran, as a particular threat to its interests. In order to expand support of its satellites, Washington is removing the restrictions on sale of arms instituted of the Carter Administration and is taking steps to strengthen their police edifice, directing principal efforts toward ensuring the stability of antipopular regimes.

According to the foreign press, the Reagan Administration has selected Latin America as a "test area" for implementation of the new views on the role of reactionary dictatorships in U.S. foreign policy. At the beginning of 1981 Washington proclaimed a so-called "new Latin American policy," aimed at crushing national liberation movements in this region, in conformity with which emphasis was placed on extensive employment of methods of organized sabotage, military adventures, and comprehensive aid to counterrevolutionary elements. As a result, for many months now a threat of direct U.S. military intervention has hung over several countries in Central America and the Caribbean. Washington has expressed the intention to demonstrate precisely here its entire "resolve" to stand up against progressive changes taking place in the world. Discussing the principal aims of the White House's "new Latin American policy," the foreign press emphasizes that they consist in expanding ties with antipopular regimes which in Washington have gained the status of "U.S. allies." They are also supposed to give a new impetus to a diplomatic and also possibly a military offensive against socialist Cuba, which is called a "troublemaker," and to neutralize the influence of the revolution in Nicaragua.

U.S. propaganda attempts to give the appearance of legitimacy to aggressive actions by U.S. imperialism against the countries of this region, portraying the eruption of popular resentment in this region as a result of "Soviet and Cuban penetration." These claims, however, are not supported by the international community. Increasingly fewer people believe them in the United States as well. As the newspaper WASHINGTON POST acknowledged, the basic reason for the unstable situation in Central America "is poverty, social inequality, and a long history of repressive dictatorships."

It is noted in the foreign press that Reagan's Latin American policy is essentially a rehash of the notorious "Monroe Doctrine," a return to the "big stick" policy which was widely practiced toward the countries of the Western hemisphere from the beginning of the last century. The only new element is the fact that the United States can no longer act with so much impunity as it previously could in this region, which for such a long time was an "exclusive U.S. domain."

Increasing military and economic aid to reactionary regimes in Latin America, the United States devotes principal attention to the so-called "iron triangle," which consists of the regime in power in El Salvador and the fascistic dictatorships in Guatemala and Honduras. In 1981 El Salvador received 175 million dollars in aid, while 297 million was appropriated for this purpose in 1982. The magnitude of military loan assistance offered to Guatemala is increasing. In addition, since the Pentagon intends to use the Honduran Army, "if necessary," as a policeman against the rebels in El Salvador and the Nicaraguan revolution, in 1982 this regime will receive more money than during the entire period from 1950 through 1979. These steps are viewed in Washington merely as the beginning of a process of extensive support for U.S. satellites in the region.

Attempts to destroy the revolutionary movement in Central America, however, are failing to bring Washington the desired results. In spite of the inhuman savagery being wreaked by the junta in El Salvador with the aid of U.S. advisers, patriots in that country are becoming increasingly active. Progressive forces in Guatemala and Honduras are also vigorously resisting the reactionary dictatorships. Under these conditions the White House is openly considering the possibility of direct U.S. intervention in the events taking place on that continent, a possibility which was repeatedly mentioned by A. Haig when he was serving as secretary of state.

Washington's intention to settle problems in Central America by means of force is leading to further deepening of U.S. involvement in social conflicts on the side of repressive regimes. This is particularly vividly manifested in El Salvador. According to reports in the foreign press, there are presently approximately 200 U.S. military advisers in that country, who are directly participating in punitive operations against the civilian population. Weapons bearing the stamp "Made in USA" are extensively employed. It is reported that President Reagan intends to send military pilots to El Salvador to take part in combat against the patriots. At the same time the United States is training at an accelerated pace additional Salvadoran government troops at U.S. military bases: at Fort Bragg, North Carolina, and at Fort Benning, Georgia. An additional 4 to 5 battalions will train at Pentagon bases in the Panama Canal Zone. In addition, different versions of a blockade plan have been devised for use against Cuba and Nicaragua.

Foreign experts compare such active support by Washington of the antipopular regime in El Salvador with the initial stage of the U.S. aggression in Indochina. It is not surprising that the newspaper CHRISTIAN SCIENCE MONITOR noted that "the role of the United States in El Salvador is reminiscent of its involvement in the war in Vietnam."

The U.S. imperialists are giving all kinds of support to the murderous U.S.-installed Pinochet dictatorship in Chile as well as antipopular regimes in a number of other countries of Latin America.

The fundamental aspects which are typical of relations between the White House and reactionary dictatorships in Central America are also manifested in U.S. policy in other parts of the world. Highly indicative from this standpoint is the Near East, and particularly the Persian Gulf area, where Washington's policy is determined by the geopolitical calculations of U.S. imperialism. This region, which is immediately adjacent to the borders of the Soviet Union and other socialist countries, occupies an important strategic position. Recently U.S. policy in this region has been increasingly influenced by America's increasing dependence on import of strategic raw materials, particularly oil. "A shortage of resources," noted the magazine U.S. NEWS AND WORLD REPORT, "dictates the necessity of revising plans with the objective of achieving a rapid buildup of an extensive U.S. military presence in the Near East." Under the influence of the revolution in Afghanistan, collapse of the Shah's regime in Iran, and development of national liberation trends in other countries, the idea of aggressive utilization of force to establish a situation in this region which is favorable to the United State has gained preponderance in Washington. A particular expression of this idea is the establishment of "rapid deployment forces" numbering more than 300,000 men, which are to be used chiefly in this region in case a "threat" to the interests of U.S. monopoly capital arises.

Pentagon strategists do not hide the fact that redeployment of troops to the Near East and to the Persian Gulf region is impossible without the availability of intermediate bases from which they can be supported. Therefore at the end of the 1970's the United States began actively looking for supporters of a U.S. military presence in the region. Washington was counting on reactionary regimes, which would see in this a guarantee of continuing to hold power. They were promised loans and arms as payment for the right to use military bases. In fiscal 1982 and 1983, for example, 80-90 percent of total military aid to foreign countries is to go to countries in the Near East and East Africa which have agreed to use of their facilities by the Pentagon.* The greater part of this aid goes to Israel, which is pursuing a brazenly aggressive policy against the Arab peoples. As President Reagan stated, since the overthrow of the Shah of Iran, Israel is the only dependable U.S. ally in the Near East. Washington is counting primarily on Tel Aviv in U.S. Near Eastern policy.

As in the past, the United States is also counting heavily on Egypt. The Pentagon is already permitted to use a number of military installations on Egyptian soil. In order to draw this country deeper into its militarist preparations, Washington has declared its intention to increase military aid to Egypt, aid which for several years now has exceeded 500 million dollars. Military aid appropriations will be increased to 1.3 billion dollars, however, in the fiscal 1983 budget.

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* For more detail on U.S. arms deliveries to the Near East, see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 11, 1981, pp 19-24 -- Ed.

While focusing primarily on Israel and Egypt in its Near Eastern policy, at the same time the United States is nurturing plans to unite all reactionary regimes in the region. According to the U.S. scheme, anti-Sovietism would be the political platform of such an alliance. This concept, which has been dubbed "strategic agreement," states that in order to further the struggle against the "Soviet threat," Israel and the conservative Arab states must refrain from hostility with one another and unite under U.S. aegis. In addition to Egypt, the strategists in Washington intend to draw Saudi Arabia, Oman, plus several other countries into this "alliance." As is noted in the foreign press, however, a steady increase in the aggressiveness of Israeli policy and a cautious attitude on the part of the Persian Gulf countries toward U.S. attempts to expand its military presence in the region have nullified the hopes of the Reagan Administration to hammer together a unified anti-Soviet camp in the Near East.

The policy of supporting reactionary dictatorships which is being pursued by U.S. ruling circles is not limited to Central America and the Near East. The steps they are undertaking attest to an endeavor to obtain the support of anti-popular regimes with the objective of crushing the struggle of the peoples of liberated countries throughout the world.

Increased activeness is also being shown in regard to Pakistan. The collapse of the Shah's regime dealt a powerful blow to the entire system devised by Washington for the Persian Gulf area and designed to hold the countries of that region within the framework of imperialist strategy. Iran, the central element, fell out of this system. To preserve it, Washington is now counting on the military regime of General Zia-ul-Haq. The White House has given the go-ahead to U.S. arms deliveries to Pakistan, which it had held back for a number of years in connection with the fact that Pakistan is developing its own nuclear program and plans to build an atomic bomb. Now this factor, which is extremely dangerous to the cause of peace, is no longer being considered. In fiscal 1982 100 million dollars was appropriated for Pakistan, which is merely a prelude to large-scale military and economic aid totaling 3.2 billion dollars. Washington showed no concern for the fact that in the last 16 years Pakistan has provoked three wars on the subcontinent, while the regime of General Zia-ul-Haq has instituted a reign of terror in that country. The only thing of importance to the United States is that a Pakistan which is armed to the teeth assume the functions of policeman which the Shah's regime in Iran had previously performed, with Pakistan's territory becoming a bridgehead for operations by the interventionist "rapid deployment forces."

A desire to strengthen wherever possible reactionary regimes, which were viewed by U.S. imperialism as an effective means of combating the national liberation movement of peoples, has defined U.S. policy toward the Republic of South Africa. Recently there has been a steady increase in comprehensive U.S. support of the South African racists. Washington has officially called them its "friends." For many years now the United States has been secretly providing the Republic of South Africa with modern arms. The apartheid leaders in turn have repeatedly declared their willingness to perform the role of policeman of international imperialism not only in Southern Africa but in the South Atlantic and Indian Ocean as well. Washington is presently formulating plans to bring Pretoria out from political isolation, in particular by including this country in a South

Atlantic military-political bloc to be modeled after NATO. U.S. strategists do not conceal the fact that their heightened interest toward the Republic of South Africa also is connected with the Anglo-Argentine conflict over the Falklands (Malvinas), in which the United States for all intents and purposes took part on the side of the British colonialists, as well as the intention to obtain Pretoria's consent to the use of South African bases for the interventionist "rapid deployment forces."

Today Washington is feverishly formulating various plans to crush the national liberation struggle of peoples. Strengthening the emphasis on utilizing reactionary regimes in these plans is one more confirmation of the correctness of the description of U.S. foreign policy stated at the 26th CPSU Congress: "Adventurism, willingness to gamble the vital interests of mankind for the sake of their own narrow selfish aims -- this is being particularly glaringly manifested in the policy of the most aggressive imperialist circles."

Intrigues by imperialist forces in the international arena, directed toward intervention in the internal affairs of other countries and peoples, as well as attempts by Washington to dictate its will to other countries and peoples demand of Soviet servicemen a high degree of vigilance and continuous combat readiness to offer a rebuff to any and all acts of provocation by the U.S. adventurists.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTARY ON NATO JOINT FORCES REAR SERVICES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 82 (signed to press 12 Oct 82) pp 18-22

[Article, published under the heading "General Military Problems," by Col (Ret) A. Alekhin: "NATO Joint Forces Rear Services"]

[Text] Today, just as in the past, the threat to the cause of peace and security comes from imperialism. The aggressiveness of its most reactionary circles has become sharply intensified today. This is particularly clearly evident in the example of the activities of U.S. military and political leaders who, openly pursuing a policy "from a position of strength" in international relations, are endeavoring to build an enormous potential for waging war. The present stage in the arms race is characterized by unprecedented militarization of the economies of the Western nations, particularly the United States and the other NATO member nations, by expansion of military production and by preparation of their armed forces for participation in new adventures.

Large land and sea forces, a network of military bases, command and control facilities and communications systems are already deployed in peacetime on the territories of the NATO member nations, plus huge stockpiles of arms and supplies essential for waging war. A 30-day supply of materiel has been established in Europe for the NATO Joint Forces, as well as a 2-month supply for U.S. military forces. In view of the energy crisis which seized the capitalist nations, NATO leaders recommended that all European NATO member countries establish a 90-day strategic stockpile of energy resources (crude oil and refined products).

Taking into consideration intensification of military and economic preparations in NATO, the technological revolution in military affairs, as well as modern methods of conducting war with the employment of nuclear weapons, including neutron weapons, which could escalate beyond the boundaries of a limited war in Europe and assume a global character, Western military experts have taken a new approach to the problem of mobilizing the necessary resources of the allied nations in the interests of the bloc and their national forces. Estimating the military-economic potential of the member countries and the experience of local wars, exercises and maneuvers conducted by the United States, they have revealed a number of errors in views on logistic support of modern operations and have concluded the necessity of reorganizign NATO's system of rear services.

At the beginning of the 1980's the United States and the other members of the bloc proceeded with a full effort to implement a long-range program which covers not only the manufacture of new-generation weapons and combat equipment and furnishing them to the troops, but also organization of a reliable rear services support system, which began to be examined from the position that troops and naval forces should be prepared for determined actions from the very beginning of a military conflict right up to its conclusion (in conditions of fighting a protracted war). Accomplishment of these tasks, in the opinion of NATO command authorities, is directly dependent on the degree of organization of the rear services, their mobility, flexibility and capability to provide uninterrupted supply to the troops on the basis of integration of the rear services manpower and resources of the armed forces of the member countries.

As is emphasized by the foreign press, common principles of organization of NATO Joint Forces rear services were formulated as a result of joint efforts by the NATO nations in the area of logistic support. Rear services support for the conduct of a protracted war in Europe, however, remains the most complex problem, since it is essential to accumulate in advance and to replenish here in a prompt and timely manner the requisite quantity of combat equipment and supplies. NATO leaders attach equal importance to the state and functioning of lines of communication and the transportation system, to reliable protection of materiel against hostile action and the disposition of materiel in depth within the European theaters of military operations.

Particular attention is devoted to matters connected with logistical support of allied forces in view of the great diversity of weapons and equipment and the enormous intensity involved in the conduct of modern operations. In order to solve these problems, standardization of weapon systems is presently being carried out within NATO, and a search is in progress for additional possibilities of satisfying the increased troop requirements in materiel. Graphic confirmation of this is the average daily per-soldier consumption of supplies. During World War I consumption was 6 kg, approximately 20 kg during World War II, 90 kg during the period of U.S. local wars, and in recent years this figure has exceeded 100 kg at NATO exercises and maneuvers. In formulating their aggressive plans, NATO command authorities take into account increased requirements pertaining to supplying troops with weapons, ammunition, fuel and lubricants, and the need for a sharp increase in stockpiles of these supplies in theaters of military operations.

Stressing expansion of the sphere of activities and significance of the NATO Joint Forces rear services in present-day conditions, NATO leaders assign a special role to planning of rear services support, considering it to be an important component in planning any operation. They are endeavoring to find those forms and methods of supporting the combat operations of combined units and units, on the basis of organizing more precise functioning of the bloc's combined rear services, which are most expedient for application in present-day conditions.

Improvement of the rear services system of NATO and the national forces is being accomplished by improving the organization and establishment primarily of the ground forces operational and tactical rear services, integration of national rear services manpower and resources, standardization of weapons and military

equipment, prepositioning of heavy weapons and supplies at joint depots, at bases and storage facilities in the theaters, development of transport networks, as well as in other areas. NATO command authorities are seeking to simplify the existing system of rear services support, to make it less unwieldy and more efficient, and to bring rear services establishments and units closer to troop combat dispositions and naval forces.

In the opinion of Western experts, organization of modern rear services in the armed forces of the member nations should support the following: in peacetime -- continuous combat readiness and daily troop activities; in a period of international crisis -- organized shifting over by rear services agencies and the economy from a peacetime to a war footing; during war -- centralized, efficient and flexible control of rear services units and subunits, supplying the troops with everything they need for the conduct of combat operations.

In order to ensure the continuous readiness of NATO Joint Forces to conduct combat operations primarily in Central Europe, NATO command authorities presently have at their disposal a complex system of joint rear services, which utilize the national resources of the member nations. Initially joint rear services agencies were formed for planning and coordinating the activities of the national rear services, and at succeeding stages -- joint services for providing troops with the principal types of logistic support. Foreign experts believe that measures conducted for the purpose of improving the infrastructure and joint military production have made it possible to build the foundation of the bloc's material and technical base.

The Joint Forces rear services presently constitute a multinational control edifice with a complex system of supply, technical and medical support, which includes the bloc's top-echelon rear services agencies, with NATO's supranational planning and executive edifice, as well as establishments and units in the theater of war and theaters of military operations (see diagram) [not reproduced]. In the theaters of military operations the rear services agencies in turn are subdivided into operational and voyskovyye [front-line, tactical]. The former are subordinate to the corresponding NATO joint commands, while the latter are subordinate to the commanders of national-affiliation combined units and units.

As is noted in the foreign press, joint and national rear services rear agencies, units and establishments in the theaters of military operations are located in the communications and combat operations zones. The communications zone includes land and sea areas as well as airspace adjacent to the combat operations zone. Located in this zone are reserve and special troops, air force and naval bases, rear services units and subunits of various designation, central and regional supply depots containing materiel for comprehensive rear services support of troops and naval forces, both those already disposed here and those being deployed into the zone. The required supply items are to be brought here from the United States, Canada, Great Britain, and certain other countries, stockpiled and issued to the troops for immediate support of the units and combined units deployed in the combat operations zone. Air and naval bases are the principal logistic support points for joint air and naval forces. Supplies of fuel, ammunition, provisions, etc are stockpiled at these bases.

Front-line rear services units and subunits directly supply all necessary items to the troops deployed in the combat operations zone. U.S. and NATO forces command authorities consider that the main objective of rear services activities is to supply the forward echelons of troops. It is for this reason that one of the most important roles within the logistic support system is assigned to the rear services of combat units and combined units.

There are certain specific features to NATO naval forces rear services support, which recently has been improving along the lines of development of mobilie basing. In contrast to fixed-location basing, according to foreign experts, it helps increase the combat readiness of naval forces, helps increase the time warships can stay at sea, helps increase survivability of the logistic support system and helps make naval forces less dependent on shore bases. Continuous availability of more than 100 vessels is specified for this purpose. As was reported in the Western Press, docking facilities are being increased at naval bases, ship repair capabilities are being expanded, port equipment is being modernized, and harbor dredging and other activities are being carried out.

Improving organization of rear services support, NATO command authorities attach great importance to integration of the principal areas of rear services activities, which has been expressed primarily in centralized troop supply and weapons standardization. For example, joint rear services supply systems have been established and are operating on the scale of NATO in the European theater of war for supplying troops with fuel, providing military transport, as well as joint weapons manufacture and maintenance. Ammunition, fuel, provisions, and spare parts are being stockpiled at joint central supply depots. An active effort is in progress to equip the theaters of military operations, in which there is occurring an appreciable expansion of the network and growth in the capacity of base facilities, storage depots, warehouses, permanent-location medical facilities, and other rear services facilities.

Foreign experts believe that NATO leaders have succeeded in achieving centralized supply of logistic support items to the Joint Forces to a considerably greater degree than standardization of weapons, military equipment and supply items. According to their calculations, completion of the weapons standardization program in all member nations could increase by 30 percent the combat capabilities of established forces and could substantially reduce the costs of development, operation and maintenance of weapons and combat equipment.

As is noted by military experts, technical and economic problems of standardizing the weapons of the NATO countries are closely linked with the principles of rear services support and in large measure exert influence on completeness of accomplishment of centralized supply. They believe that by virtue of these circumstances the establishment of joint supply centers, depots and warehouses, as well as efficient centralized supply for combined units and units are possible only after accomplishing the program of standardizing weapons, combat equipment, rear services facilities and supply items within NATO, a program which presently is still far from completion. A directorate for supply and technical support of various weapons systems, established as an executive agency of the NATO Military Planning Committee, as is emphasized in the foreign press, has not yet been effectively utilized due to the great diversity of standard-issue weapons in the NATO countries.

The greatest success in the area of standardizing equipment, servicing, maintenance and supply has been achieved by the NATO Joint Air Forces, the aircraft of which, for example, can land at practically all bases and airfields in Central Europe, refuel, obtain required technical assistance, and replenish ordnance.

In addition, it is noted in the press that there have been difficulties connected with the so-called "dual subordination" of rear services agencies. The problem is that supply to NATO Joint Forces is organized according to the principle of national responsibility for supplying troops dedicated to NATO and is accomplished through the combined efforts of joint and national rear services agencies. Placement of the manpower and facilities of national rear services into operational subordination to NATO command authorities is not provided for even in case of war. They remain under the national command authorities and are responsible for supplying national troops turned over to NATO.

In time of war, when supply stockpiles in the European theater of war may be partially or completely destroyed, sealifting and airlifting of supplies from across the ocean (primarily from the United States and Canada) is specified for supporting the further conduct of combat operations.

In carrying out the large-scale transport of troops and supplies to Western Europe, it will initially be necessary, according to figures in the magazine NATO'S 15 NATIONS, to transport from the United States within a short period of time as many as 1.5 million men, approximately 12 million tons of supplies, and more than 12 million tons of fuel and lubricants. It is believed that this will require the enlistment not only of a large percentage of U.S. ships (more than 200), but also the ships of other NATO countries (as many as 600). Personnel will for the most part be airlifted. As many as 1000 shiploads a month may be required for subsequent rear services support of NATO Joint Forces.

Proceeding from realistic possibilities and the practical experience of employing sea and air transport at past exercises, NATO command authorities are endeavoring to find ways to solve this problem. As regards the United States, as a result of advance stockpiling of heavy weapons and preparation of rear services lines of communication in Europe, as well as increasing air and sea transport capabilities, by the end of 1984 U.S. armed forces command authorities will be capable of increasing the size of U.S. ground forces in the Central European theater of military operations by a factor of 2.5 within a period of 2 weeks.

In recent years NATO leaders, in the course of operational and combat training of staffs and troops, have been systematically testing rear services support plans and devising new methods of organizing supply, which are being utilized in formulating appropriate programs. Activities at maneuvers and exercises of NATO Joint Forces and national forces include working on problems of making rear services agencies fully combat ready, providing support of strategic transport of troops and supplies, organization of logistic support, and centralized management and control of rear services. Civilian authorities are also being enlisted to participation, as well as various establishments which check plans for mobilizing economic resources and supporting troop activities according to the principle of making conditions maximally approximate actual wartime.

In order to increase mobility of rear services, standard performance times for putting rear services agencies on a war footing are being shortened, the category of combat readiness is being raised for rear services units designated to be made operationally subordinate to NATO command authorites, and a search is in progress for reliable means of accomplishing strategic transport operations and expanding troop transport capabilities.

In the estimate of Western experts, in recent years the activities of rear services agencies and their organizational structure have been reorganized in the NATO Joint Forces, and there has been an improvement in the mobility and reliability of rear services support systems. In their opinion, however, the existing system of NATO rear services support may prove little-effective if a military conflict develops in Europe, and it may be unable to support planned operations. A large percentage of supplies stockpiled in Europe may be destroyed in the initial period of a war, the economies of the European NATO member nations may be paralyzed, and it may be difficult to transport troops and supplies across the ocean.

As is emphasized in the foreign press, problems in rear services support which have arisen and the complexity of functioning of the entire mechanism of joint rear services will evidently be resolved by expanding the power of NATO command authorities in the rear services area, further integration of rear services, and improvement in logistic support of NATO Joint Forces. It is also to be anticipated that U.S. and NATO leaders, in order to carry out their aggressive schemes, will continue seeking to expand cooperation among the European nations, aimed toward militarization of their economies.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTARY ON NATO COUNTRIES' CIVIL DEFENSE SHELTERS

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 82 (signed to press 12 Oct 82) pp 24-26

[Article, published under the heading "General Military Problems," by Lt Col V. Goncharov: "Civil Defense Shelters in NATO Countries"; passages highlighted by use of double-spaced words enclosed in slantlines]

[Text] It has been reported on numerous occasions in the foreign press that military-political leaders in the NATO member nations are applying considerable efforts to develop civil defense (CD), viewing it as an important element fostering survival of the civilian population in case of a nuclear missile war. An aggregate of measures is being carried out in the NATO countries to accomplish this task, measures directed toward protecting the population in conditions of contemporary war.

Creation of a system of shelters for the inhabitants of cities, towns and rural areas calls for the construction of new shelters, renovation of bomb shelters dating from World War II, as well as a survey of basement spaces in existing buildings and equipping of these basements as shelters. In some countries it is planned to utilize for these purposes subway stations, highway and railroad tunnels, abandoned mine shafts, and natural subterranean cavities (caves, grottoes, etc).

As Western observers note, construction of new shelters is most characteristic of the Scandinavian countries, Norway in particular, where blast shelters carved into cliffs are quite common. Greater attention now being devoted to building shelters in the FRG and Great Britain, the governments of which until recently were concentrating principal efforts on renovating World War II bomb shelters.

A survey of basements for the purpose of determining spaces suitable for shelters has been conducted to a varying degree in practically all NATO countries, but this has been most typical of the United States and Canada.

In order to economize in financial resources, the governments of many countries are taking the route of building deep-foundation multipurpose structures, which in their opinion give a rapid payback in peacetime and offer a reliable shelter for the civilian population in time of war. These include underground

garages, warehouses, sports arenas, clubhouses, etc, which when necessary can be quickly adapted to shelter the civilian population (Figure 1) [not reproduced]. Municipalities in the United States, the FRG, Great Britain, Denmark, and Norway have considerable experience in using municipal buildings and multipurpose structures.

Measures to establish civil defense shelter systems and availability of shelters for the general public in the principal countries of the NATO bloc are characterized by the following figures.

/In the United States/ a long-range program has been in progress since 1961, to establish an extensive network of shelters for the country's entire population. This program provides for the following: a survey of existing buildings and buildings under construction, for the purpose of determining spaces suitable for fallout shelters; reaching of agreements with building owners for these facilities to be used as shelters in emergencies; elaboration of measures to improve the protective properties of spaces suitable for shelter in a period of threatened attack or from the moment a state of emergency is announced; marking (placing special identification signs) of fallout and blast shelters, and providing these shelters with essential means of life support.

According to a statement made by U.S. civil defense authorities, in the course of carrying out the program of establishing a nationwide shelter system, 235,000 shelters were identified and partially built, accommodating 230 million persons, with 119,000 shelters (accommodating 120 million persons) considered fallout shelters. Distribution of purchased radiation-monitoring instruments among shelters was completed in 1973. Radiation monitoring and dosimeter kits are available in 145,000 fallout and blast shelters. Previously a program was carried out to stock U.S. shelters with provisions, water in sealed containers, medical and sanitary supplies, but they were removed in 1976 when their shelf life dates ran out, and these supplies were not subsequently replenished.

A certain reorientation took place in 1972 regarding the question of sheltering the civilian population in case of war. The government and civil defense authorities recognized the necessity, in addition to establishing a shelter system, of taking measures to prepare for advance evacuation of the population from large industrial and administrative centers, believing that in case of a massive nuclear attack this would ensure the survival of additional numbers of people.

At the same time U.S. civil defense experts point out that evacuation does not mean a complete cessation of production activities in cities and at industrial installations. In any conditions plans call for continuing operations at major industrial and energy enterprises, in transportation, communications, and municipal services. Special civil defense units will be left in the cities to perform rescue and emergency repair activities. In connection with the need to provide more reliable protection of civilians who remain in the cities, in the opinion of U.S. experts, antinuclear shelters are needed which provide protection against all the casualty-producing factors of a nuclear explosion, since the probability that large cities and major industrial installations will be hit by nuclear attack is considered high even after dispersal and evacuation of the bulk of the population.

Therefore work has been in progress in the United States since 1974 to identify those existing fallout shelters which can be upgraded to antinuclear blast shelters at minimum expense. Surveys have indicated that 57,000 fallout shelters accommodating 23 million persons can be converted into such shelters. According to a statement by civil defense authorities, the total capacity of these shelters will in the future be increased to a capability fully to shelter all persons remaining behind in the cities.

At the same time, it follows from reports in the U.S. press, in spite of the fact that the total shelter accommodation exceeds the U.S. population (approximately 223 million persons), distribution of shelters in the United States is extremely disproportional to population distribution; many are situated far from residential districts and do not possess adequate protective properties.

/In the Federal Republic of Germany/ the government has decided to step up activities in the area of establishing a nationwide shelter system. This is due to the fact that in spite of measures taken to establish an inventory of public shelters, construction is proceeding slowly. The country's nuclear shelters have a total accommodation capacity of 1.9 million persons. In present conditions, in the opinion of West German experts, this is clearly inadequate for the FRG's population of 62 million. It is true that an additional 4.5 million persons can be accommodated in obsolete World War II bomb shelters and bunkers, as well as in the unequipped basements of apartment buildings, but even counting these facilities, total accommodation does not exceed 10 percent of the entire population.

In connection with the need to increase the number of public shelters, civil defense authorities have revised the program of construction of shelters for the civilian population. According to the so-called "1977 FRG Civil Defense Plan," the network of shelters will be expanded by encouraging the construction of multiuse structures and public shelters meeting new, simplified construction and technical specifications (that is, shelters offering a lesser degree of protection).

In order to publicize measures pertaining to progress in building a network of shelters of this type, the Ministry of Finance has drawn up prospectuses and standard contractual agreements which finance agencies sign with individual builders and companies. A total of 35 million marks are to be allocated to this program each year, beginning in 1981, which will provide an annual increase in shelter accommodation ranging from 70,000 to 100,000 persons.

/British/ military and political leaders did not do anything prior to 1980 in the area of building new and upgrading existing shelters. In emergencies tunnels, Underground stations, basements of apartment houses, as well as 10,000 public air-raid shelters dating from World War II were to be used.

Now, however, the British Government, considering the results of an analysis performed by the Home Ministry of possibilities to ensure survival of the civilian population in case of a nuclear missile war, has decided substantially to increase activities in the area of developing a shelter system. It has been acknowledged expedient to establish shelters in buildings under construction,

to continue work on constructing multiuse facilities and on locating and identifying tunnels, mine workings, etc suitable for shelters, as well as to encourage homeowners to build so-called family shelters. At the present time, reports the magazine PROTECT AND SURVIVE MONTHLY, which has been published in Britain since 1981, a large number of British companies have begun producing lightweight underground family shelters of fiberglass, metal, and lightweight concrete (Figure 2) [not reproduced]. They can be very quickly installed at prior-excavated sites and covered with an additional protective layer of earth. These shelters are equipped with necessary means of life support (heating, lights, ventilation). In addition, it is recommended that permanent stores of food, water and medical supplies be maintained in them.

/In France, Italy, Belgium, and Greece,/ construction and equipping of shelters is being carried out on an insignificant scale. These countries' military and political leaders proceed from the assumption that the fact that these countries contain a large number of masonry-type buildings with basements will make it possible in a state of emergency to utilize them as fallout shelters following minor modification. In addition, plans call for sheltering the civilian population in bomb shelters dating from World War II, subway stations, underground garages, storage facilities, etc.

As is emphasized in the foreign press, of the European NATO member nations, the greatest success in developing shelter systems has been achieved by Denmark and Norway, which already today can provide shelter for 50 and 40 percent of their population respectively.

In these countries shelters are built both with government funds (public shelters) and with funds provided by companies and individuals (private shelters). As a rule the former are large (accommodating from several hundred to several thousand persons) and are designed for an overpressure of 1.5-10 kg/cm^2 (sometimes more), while the latter accommodate a small number of persons and are designed for less overpressure.

/In Denmark/ public shelters are for the most part modified World War II bunkers accommodating up to approximately 50 persons each. New multiuse public shelters are also being built. The country contains a total of more than 4000 of these, accommodating 250,000 persons.

Construction of private shelters is being accomplished by modifying basement spaces in apartment and public buildings, as well as construction of shelters in buildings under construction. More than 25,000 such shelters have been registered in Denmark (accommodating 2.2 million persons). Including public shelters, this provides shelter accommodation for approximately half of the country's population.

/In Norway/ construction of public shelters is handled by the municipalities, which pay for one third of construction costs, with two thirds coming from government budget funds. Public shelters with an accommodation of more than 200,000 persons have been built, and 65 percent of these are of the in-cliff type, offering improved protection against the casualty-producing elements of a nuclear explosion, which is one of the specific features of this country's

shelters. In addition, private shelters accommodating 1.5 million persons have been built in Norway. As indicated above, together they provide shelter for 40 percent of the population.

Foreign military observers stress that results achieved in building shelter systems vary among the NATO countries, both in volume of work being undertaken and in degree of effectiveness of these efforts. However, stepped-up activities in the area of providing protection to the civilian population in a number of countries, particularly the United States, the FRG, and Great Britain, indicate that this question is assuming increasing importance in the formulation of criminal plans by the leaders of the aggressive NATO bloc to wage war with the employment of nuclear missile weapons.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTARY ON U.S. ARMY'S CHEMICAL WEAPONS

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 82 (signed to press 12 Oct 82) pp 35-41

[Article, published under the heading "Ground Forces," by Engr-Lt Col L. Antonnikov: "U.S. Army Chemical Weapons"]

[Text] At the present time U.S. ruling circles are proceeding ever further along the dangerous path of building up arsenals of various weapons of mass destruction. Washington's officially announced objectives are to carry out a program of deployment of strategic and other weapons, to deploy new types of intermediate-range nuclear missiles in Western Europe, and ultimately to gain world military superiority. The United States is not content with this, however, and is already attempting to get world public opinion to accept the monstrous idea of the acceptable possibility of employment of nuclear and chemical weapons, producing various doctrines about delivering a "first," "preemptive," "demonstration," "retaliatory" and other strikes. They are crudely imposing these views on the NATO bloc member nations. Under U.S. pressure, for example, a decision to expand the arsenal of offensive chemical weapons, not only within the NATO Joint Forces but also in the armies of the NATO member nations, plus other decisions, were adopted at a NATO Council meeting (in January 1982). As regards their own armed forces, Pentagon officials, with total White House connivance and support, has unequivocally settled this question in favor of an unrestrained buildup and comprehensive training of troops in the use of chemical weapons, particularly since they acquired considerable experience in employing such inhuman devices during their aggression in Indochina.

Judging from reports in the foreign press, in the last 4 years Pentagon expenditures on military chemical (including biological) programs have almost tripled. The present administration intends to produce new chemical weapon systems and to expand production. In fiscal year 1981 more than 260 million dollars were spent on chemical weapons, while it is planned to spend 455 million dollars this year. Congress approved a Defense Department appropriations request of more than 700 million dollars for chemical weapons development in fiscal year 1983, while planned appropriations total 1.4 billion dollars in 1984.

U.S. ground forces are equipped with the greatest quantity of diversified offensive chemical weapons. As is noted in the foreign press, their role and significance within the overall weaponry system are determined by those principal missions to be accomplished with the aid of chemical weapons:

to kill or disable enemy personnel, to diminish the adversary's combat efficiency (wearing him down), and to contaminate the ground or combat vehicles and other military equipment in order to make it difficult for the adversary to use them;

to strike important military, defense and civil installations without destroying them;

to attack small targets against which a nuclear strike is inexpedient;

to neutralize personnel in non-airtight bunkers, tanks and other shelters which provide a certain degree of protection against the casualty-producing elements of nuclear weapons and against the effects of conventional munitions.

One of the principles of employment of chemical weapons is combining them with other types of weapons which, in the opinion of U.S. military experts, leads to inflicting combined casualties which surpass in effectiveness the casualties achieved with the separate employment of these weapons. Independent employment is also a possibility, however. U.S. Army manuals presently in effect specify that with optimal weather conditions chemical weapons shall be used without warning against unprotected personnel (be they military or civilians), in order to produce maximum casualties.

Nor have they forgotten such factors leading to additional casualties as confusion, panic, failure to observe antichemical protective procedures, etc, which can occur among enemy troops and civilians close to nuclear-stricken areas. Considering chemical weapons to be an effective means of combat, Pentagon strategists also have considered the fact that even with a high level of antichemical procedures discipline, preparedness and antichemical protective means close at hand, troops may lose their combat efficiency, and in many cases this may be fairly substantial as a consequence of physical and psychological stress, excessive heat stress, as well as fatigue, sustaining casualties from these causes as well.

U.S. Army chemical weapon systems include three basic components: toxic chemical agents, chemical munitions, and means of delivery. The U.S. Army presently employs three groups of toxic chemical agents (Table 1): lethal, temporarily disabling, and irritant. Military experts subdivide the latter into a group of "police chemical agents," attempting to pass them off as merely crowd-control agents, although stocked by the military.

The U.S. arsenal of chemical weapons emphasizes lethal agents -- Sarin, VX, and distilled mustard gas, as well as the means of delivering them. Commercial-scale production of these toxic chemical agents in the United States began following World War II. Subsequently the possibility of employing Soman was also

Table 1. Characteristics of U.S. Toxic Chemical Agents

Name of Toxic Chemical Agent (Code)	Classification by Effect on Organism	Physical State at 25°C	Volatility at 25°C, g/m^3	Solubility in Water at 25°C, %	Average Dose, mg/min/l: Lethal in Fumes / Disabling	Lethal Dose Through Bare Skin, mg	Symptoms of Affection Appear
Lethal Toxic Chemical Agents							
VX	Neuroparalytic	Colorless liquid	5-30	1-5	0.01 / 0.005	2-10	In 0.5-1 hour (when attacking skin) and fast (attacking respiratory organs)
Sarin (GB)	Same	Same	16,400	Almost 100	0.1 / 0.055	100-200	Same
Soman (GD)	Same	Same	3,600	Weakly soluble	0.05-0.07 / 0.025	50-100	Same
Mustard gas (distilled) (HD)	Vesicant	Liquid, from colorless to yellow	950	0.05	1.5 / 0.2	4000-5000	In 4-5 hours
Incapacitating Agents							
BZ	Psychochemical	White crystalline powder	-	-	200 / 0.11		In 0.5-4 hours
Irritant Agents							
CS	Irritant	White crystalline powder	-	-	61 / 0.02		Within a few seconds
CR	Same	Same	-	-	/ 0.005		Same

considered. Phosgene and cyanogen chloride, in the opinion of U.S. experts, are not promising for use in modern wars. They could be combat-used when needed, however, since in peacetime they are produced in large quantities for the manufacture of plastics, dyes, chemicals, etc, and therefore offer a certain reserve for obtaining these types of toxic agents.

Sarin and VX are neuroparalytic-effect organophosphorous agents which were adopted by the U.S. Army in the 1950's. These are colorless, odorless liquids which differ considerably from one another in volatility, persistence on the ground, and toxicity, which is due to differences in their chemical structure and physicochemical properties. However, they possess a common biochemical casualty-producing mechanism -- suppression (inhibition) of the enzymatic activity of cholinesterase, resulting in disruption of the activity of the central nervous system, leading to a state of stimulation, nervous convulsions, paralysis of the respiratory centers, and heart stoppage. Poisoning can be caused by breathing in fumes or aerosol, resorption of liquid or highly-concentrated fumes through the skin, resorption through the conjunctiva, or by entering the digestive tract.

Sarin is an unstable agent, evaporates rapidly, and readily hydrolyzes into nontoxic products, especially in an alkaline environment. It is recommended that Sarin be employed both on offense and in the defense, since it affects the victim fairly quickly (within the first 2 minutes). It has been noted in the foreign press that for troops operating in conditions of air contaminated with Sarin fumes, with a relatively light physical work load, the average lethal dose is approximately 70 $mg/min/m^3$. This means that 50 percent of the personnel of a subunit which has not had time to don protective gear, when breathing in air contaminated by toxic agent vapor in a concentration of 70 mg/m^3, will sustain fatal damage within one minute if they are not given immediate medical treatment. This toxic dose is approximately half that for personnel operating under a substantial physical work load.

VX is a persistent agent, evaporates slowly, and hydrolyzes poorly even in an alkaline environment. In vapor and an aerosol state VX is 10 times as toxic as Sarin (acts fairly quickly), and when it comes into contact with the skin in a liquid-droplet state it is 100 times as toxic as Sarin, and due to a latent period of effect, a lethal dose can be accumulated by the organism even prior to appearance of the first signs of affection. U.S. experts recommend that VX be used against exposed personnel as well as to make difficult or limit enemy use of the ground, weapons and equipment. It is stressed that because of the considerable persistence of this agent (up to 10 days in summer), maneuver by friendly troops may be restricted following its employment.

In a number of its properties Soman occupies an intermediate position between Sarin and VX. It is little soluble, more persistent than Sarin, and is three times as toxic as the latter, but it is surpassed in these properties by VX. Porous materials absorb it more strongly than Sarin. Cases of Sarin poisoning are harder to treat.

Mustard gas is a persistent blister agent and possesses a broad range of casualty-producing properties (from purulent conjunctivitis and blindness to

wounds which refuse to heal and general poisoning of the organism). This agent was widely employed in World War I and maintained its position as one of the principal lethal chemical agents up to the end of the 1950's. As the armies of the capitalist countries began employing organophosphorus agents, however, the role and significance of mustard gas declined substantially. Its toxicity through the skin is 2000 times less than that of VX. In a cost-effectiveness evaluation of its combat effectiveness, mustard gas is far surpassed by VX. However, in view of availability of commercial production, long-term storage capabilities, together with other factors, it continues to remain in the chemical weapons arsenal.

The following munitions have been developed in the United States for ground troops use of toxic chemical agents: chemical missile warheads, chemical artillery and rocket artillery shells, chemical mortar shells and landmines, as well as gas generators and grenades. It is noted in the foreign press that the effectiveness and reliability of chemical weapons depends to a considerable degree on the weapon system with which these munitions are employed. In the opinion of U.S. experts, employment of missiles ensures a surprise strike on area targets to comparatively substantial tactical depth as a consequence of the performance characteristics of missile systems (range and accuracy, comparatively large volumes of delivered chemical agents) and the design features of their warheads. Employment of such chemical warheads, however, is not always considered advantageous, because of their high cost and the slow rate of missile fire. Three types of Sarin-containing cluster-type chemical warheads were developed in the 1960's for U.S. Army tactical missiles (performance characteristics are listed in Table 2), which have now been replaced by new chemical warheads for the Lance missile. According to information in the foreign press, Pentagon officials are also considering providing cruise missiles with binary-type chemical warheads.

Table 2. Performance Characteristics of U.S. Missile Chemical Warheads

Name of Chemical Warhead and Delivery Vehicle	Weight, kg		Maximum Range, km	Number of Firings Per Launcher Per Hour	Area of Contamination,* hectares
	Chemical Warhead	Agent (Sarin)			
M206, for Little John free-flight rocket	120	32.5	20.4	3	10-20
M190, for Honest John free-flight rocket	570	217	38	2	110
M212, for Sergeant guided missile	750	195	140	2	110
E27, for Lance guided missile	450	.	80	2	.

*Magnitude of casualties in indicated contamination areas depends on degree to which personnel are protected, as well as weather conditions, and may run 10-80 percent.

The M91 115 mm 45-tube salvo-fire rocket artillery system can be used to strike area targets with chemical weapons. A warhead carrying Sarin or VX was developed for this system. Maximum range is approximately 11 km. A salvo from one launcher covers an area of 40 hectares. At the end of the 1970's the United States developed the new 240 mm (12-tube) PC30 MLRS, some of the rockets of which are to carry binary-type chemical warheads. Range exceeds 30 km.

U.S. military experts note that effectiveness of employment of chemical weapons delivered by conventional artillery and mortars is achieved in particular due to their high degree of accuracy, rapid rate of fire, capability to hit targets in close contact with friendly forces, as well as their extensive maneuver capability and capability of rapid concentration of fire. The performance characteristics of chemical munitions for these artillery systems are given in Table 3.

Table 3. Performance Characteristics of U.S. Army Chemical Munitions for Conventional Artillery and Mortars

Artillery System Caliber and Designation	Chemical Munitions Designation	Agent used	Weight, kg		Maximum Range, m	Contamination Area, ha	
			Shell With Agent	Agent		With One Round Fired	Battery Fire
M106A1 106.7 mm self-propelled mortar	M2A1	Mustard gas	10.7	2.7	4,500	0.1	5
	XM630	CS				.	.
M102 105 mm towed howitzer	M60	Mustard gas	19.5	1.4	11,500	0.15	2.5
	M360	Sarin	19.5	0.8		0.2	2.5
	XM629	CS	19	1.5		.	.
M2 155 mm towed field gun	M122	Sarin	45.9	2.9	23,500	.	.
	M104	Mustard gas	43	5.3		.	.
M109A2 155 mm self-propelled howitzer	M110	Mustard gas	44.7	5	18,000	1	2.5
	M121A1	Sarin	45.2	2.9		1	2.5
	M121A1	VX	45.2	2.7		1.5	72 (15-minute shelling)
	XM631	CS	44	4.5		.	.
	M687	Binary Sarin	43-46	.		.	.
M110A2 203.2 mm self-propelled howitzer	M426	Sarin	91	7.1	24,000	2	12 (15-minute shelling)
	M426	VX	91	6.5		2	

According to reports in the foreign press, the United States has produced vast stockpiles of chemical artillery and mortar shells. Approximately 3 million units of chemical munitions are stored in depots at the present time, including 105 mm shells with Sarin, 155 and 203.2 mm howitzer shells with Sarin and VX (Figure 1) [not reproduced], as well as hundreds of thousands of mortar shells and chemical landmines with neuroparalytic-effect agents. In planning large-scale employment of chemical weapons in Europe, U.S. Department of Defense officials are also counting on employing U.S.-made weapons systems employed by the ground forces of the NATO member nations.

The above-listed arsenal of offensive chemical weapons is to be substantially upgraded according to the Pentagon's plans for the future. According to a statement by U.S. Secretary of Defense C. Weinberger, modernization will chiefly consist in gradual replacement of conventional chemical weapon systems with binary systems in the 1980s. All measures connected with this process were combined in a single special program to develop binary lethal weapon systems, BLWS (Binary Lethal Weapon System).

In contrast to conventional chemical munitions, binary munitions are not loaded with one plant-produced ready chemical agent, but with two (hence the term "binary") initial components which are nontoxic or little-toxic separately, but during flight (delivery) to the target are capable of mixing inside the shell body, reacting chemically with one another and forming virtually the same highly toxic chemical agents. The advantages of these munitions lie primarily in their easier and safer storage.

The process of development and production of binary chemical munitions consists of three interlinked sequential stages. At the first, most complex stage, a search is made for pairs of little-toxic chemical substances which could be used as initial components. They should be stable during storage and capable of spontaneously reacting with one another within fractions of a second, with a high output of a highly-toxic end-product agent. Selected pairs can be "liquid-liquid" and "liquid-solid" systems, also including requisite supplementary chemical additives. The latter include catalysts, which speed the chemical reaction, and stabilizers, which ensure stability of the finished-product toxic agent.

The second stage includes designing and engineering binary-type chemical munitions (artillery and mortar shells, rocket and missile warheads, bombs, aircraft spraying equipment, etc), manufacture of experimental models, and conduct of field testing and troop trials with actual firing at chemical proving grounds.

The third stage includes development of an industrial process for manufacturing the components of binary chemical agents and munitions to carry them, as well as construction of facilities for the mass production of binary chemical weapon systems.

At the commencement of the BLWS program, U.S. experts focused principal efforts on developing binary versions of the most highly-toxic lethal neuroparalytic agents,

particularly VX and Sarin, which are standard-issue toxic chemical agents. Work on developing binary Sarin (designation GB-2) was completed toward the end of the 1960's. Difluoranhydrides and alcohols were the most suitable nontoxic initial components for a reaction creating GB-2. In particular, methyl sulfonyl difluoride was chosen as the first component, and isopropyl alcohol as the second. Tertiary amine is used as catalyst.

Judging from reports in the foreign press, development and selection of initial components for a binary synthesis reaction to produce the agent VX-2 has proven more complicated. Ethyl-2-diisopropylaminoethyl-methyl phosphonite (designation QL) and sulfur can be used as initial components for a "liquid-solid" binary system, and QL and alkydisulfide, episulfide or polysulfide (NM) for a "liquid-liquid" system. Stabilizers are added to the QL and NM components to increase chemical stability during storage.

In addition to development of binary chemical agents based on VX and Sarin, work on developing other highly toxic compounds as well was being conducted in the United States for an extended period of time. Particular attention in recent years was devoted to trying to find binary chemical agents with a volatility intermediate between Sarin and VX. Soman was comprehensively investigated for this purpose. As is noted by foreign experts, methylphosphonyl-difluoride and pinacolin alcohol can be used as initial components for synthesizing binary Soman (GD-2). Tests have now been conducted on two other similar binary-type lethal agents.

Following are the principal components of any burst-type binary munition: head with fuze, bursting charge with explosive, munition body with cavities for placing containers with chemical agent binary components, the containers proper, as well as various auxiliary devices providing separation and mixing of the components as well as occurrence of a chemical reaction between them.

In the opinion of U.S. experts, the main problem in developing binary munitions is ensuring rapid and complete mixing of the components, and preferably without developing special mixing devices. This problem is solved comparatively easily in designing binary artillery shells. The force of recoil during firing and a high rate of projectile rotation in flight are utilized, ensuring a practically completing mixing of the chemical components. Mixing devices are required for munitions which do not possess these properties during delivery to the target (bombs, spraying devices, etc).

A number of binary munitions are being developed for ground troops to be used with practically all principal weapon systems: conventional and rocket artillery, mortars, operational-tactical missiles, including cruise missiles. The first binary munition development of which was fully completed was a 155 mm howitzer shell containing binary Sarin. In 1977 it was made operational and designated M687. Figure 2 [not reproduced] contains a diagram of this shell and its nonbinary equivalent.

A binary chemical shell differs in construction from a conventional shell chiefly by the design of the chamber and by the filling procedure. While the latter is completely filled with a single ready agent (in this instance Sarin), the body of a binary shell contains two plastic containers, one behind the

other, which contain the components required to produce binary Sarin (the substance DF in the first, and JP in the second). In depot storage they can be kept separately and outside the shell body. Sometimes one of them is placed in the shell at the factory, while the other is inserted when readying the shell for firing. Binary Sarin is dispersed by a bursting charge contained in the nose of the shell.

The United States has now developed another type of binary artillery munition -- the XM736 203.2 mm howitzer shell, filled with VX-2, the construction and operating principle of which are similar to the M687. About 10 other various types of binary munitions are at various stages of development.

It is planned to go into large-scale production of binary munitions at a plant built on the site of the military chemical arsenal at Pine Bluff, Arkansas. Production on M687 155 mm shells is scheduled to begin here in 1983 (approximately 70,000 units monthly), with production of other types of binary munitions to commence in 1984. As is reported in the foreign press, the Pentagon intends to increase the quantity of binary-type munitions to 5 million units and to replace with these munitions obsolete conventional chemical munitions manufactured in the 1960's. According to the newspaper NEW YORK TIMES, the total cost of U.S. chemical rearmament is estimated at 7-10 billion dollars.

Foreign experts point to a number of deficiencies of binary chemical weapon systems. They cannot be employed against targets located close by, since time of flight may be less than 10-15 seconds and prove insufficient for a complete reaction between the components and formation of the lethal chemical agent. Their effective coverage area is less than when conventional chemical munitions are employed: they form only 75-80 percent of the average integral area dose obtained when using the latter. Also noted are the difficulties connected with the fact that shell bodies and binary components are brought separately to the delivering weapons. In spite of these and certain other deficiencies of binary chemical weapons, however, as well as the enormous cost which must be borne in connection with their production, the Reagan Administration is obviously hastening to execute its plan for chemical rearmament. One of the main reasons for this is the U.S. endeavor to ensure maximum secrecy of development, production, transport and storage of toxic chemical agents in order to keep them from inspection in case of adoption of international agreements prohibiting chemical weapons. Another reason is the desire to keep in the arsenal of weapons the new-generation (binary) agents.

Thus in defiance of demands by the peoples of the entire world to ban the use of chemical weapons in war, U.S. militarist circles, by virtue of their reactionary, aggressive nature, are continuing not only to perfect chemical means of mass killing but also to develop new types of these barbaric weapons.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTARY ON U.S. TRAINING OF FOREIGN SERVICEMEN

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 82 (signed to press 12 Oct 82) pp 49-51

[Article, published under the heading "Air Forces" and the subheading "Readers Request," by Maj V. Viktorov: "Training of Foreign Pilots in the United States"; passages highlighted by use of double-spaced words enclosed in slantlines]

[Text] Training military personnel of foreign countries is one of the important areas of Pentagon activity in carrying out aggressive U.S. foreign policy. An important role in these activities is played by the U.S. Air Force.

Judging from reports in the foreign press, every year the U.S. Air Force provides professional and military training to approximately 4000 military personnel from more than 50 different countries. Some of them are flight personnel. As is indicated by the Western press, two organizational forms of training are currently being employed: on the basis of government agreements on the sale of U.S. aircraft to foreign countries and on so-called military assistance plans; joint training of pilots for the air forces of the NATO nations on a unified program.

/Training of flight personnel on the basis of government agreements and according to military assistance plans/ is organized by the U.S. Department of Defense through Headquarters of the Air Force, which contains a special international program directorate. It deals with the contractual-legal and financial aspects of training foreign military personnel and determines their numbers.

According to the U.S. magazine AIR FORCE, the overwhelming majority of foreign aviation specialists (more than 90 percent) train at training centers of the U.S. Air Force Air Training Command. At the headquarters of this command (Randolph Air Force Base, Texas) there is a special department which determines requirements on candidates, directly supervises their training, and is responsible for them. In those cases where training is turned over to a private company, the Air Training Command's 3303rd Squadron signs an appropriate contract with it.

Training programs are tailored to the requirements of a given country, as well as to the level of the candidate's general education, military and specialized training. On this basis a contract is drawn up, the terms of which are

coordinated with the interested country. After the contract has been signed the country makes a certain down payment, with the remainder paid in installments at specified times up to completion of training of that country's military personnel.

The content of the pilot training program, just as the programs for other specialists, is adapted to the level they have already attained. If a country is purchasing an aircraft or weapon system from the United States for the first time, the training program includes a broad range of items -- from study of the English language and theoretical training to learning to fly, service and maintain the aircraft being purchased. If the aircraft is already on operational status and the flight personnel to be trained has experience flying it, and technical personnel have experience servicing and maintaining it, a narrowly specialized program is provided.

Foreign military personnel receive primary and basic flight training at the training centers of the Air Force's Air Training Command, while subsequent training, during which they retrain on the principal aircraft and learn to operate it in combat, is received in training units of the U.S. Air Force Tactical Air Command.

Three tasks are accomplished in the process of training foreign pilots: acquainting them with the organization of flight operations and the aircraft, development of the skills of performing individual flight elements, and forming flying skills. Demonstration, orientation flights and dual instruction flights are most extensively employed to accomplish the first two tasks, and for the third -- practice of operating skills until the trainee reaches the required level of proficiency.

The demonstration method is also widely employed in training various aviation ground specialists (see figure) [not reproduced]. In training ground technicians, however, more attention is devoted to mastering a large volume of theoretical subject matter.

In confirmation of the above, certain information is published in the foreign press on training flight personnel for Saudi Arabia's Air Force on the purchase of F-5E and F fighters in 1975. In addition to the terms specifying delivery of 40 F-5E and 20 F-5F aircraft, the contract called for the following. The United States agreed to train 120 Saudi pilots (6 groups of 20 persons each, to arrive at 6-month intervals) and 1200 ground support specialists (12, 100 and 3 months respectively).

The first group of pilots arrived in the United States at the end of 1975. After completing courses in the English language, they went through primary and basic flight training at the training center of the Air Force Air Training Command. Those pilots who successfully completed these stages of training were sent to the Tactical Air Command for advanced flight training. Subsequent groups of pilots were trained in the same sequence. The pilot training program ran more than a year, and the ground technician program 27 months, broken down as follows: 6 weeks -- general military training; 58 -- study of the English language; 52 weeks -- study of certain subjects which are the most important for

their occupational specialty, from the curriculum of higher technical schools, with practical training on the equipment.

The Western press notes that in the training process U.S. instructors give no special treatment to foreigners, impose rather stiff requirements on them, and many, especially from the so-called "third world" countries, wash out for various reasons. In particular, the foreign press reported that 59 out of 127 Saudi military personnel who had come to the United States to receive pilot training had failed, and 238 out of 1053 technicians.

Considerable attention in training foreign military personnel at U.S. training centers is devoted to anticommunist and anti-Soviet brainwashing. It is conducted according to a special Department of Defense propagandist information program, execution of which is entrusted to an instructor-propagandist assigned to each group of foreign personnel.

In conformity with this program, a number of measures are carried out, in which the U.S. political system and culture as well as the notorious American way of life are extolled. The propagandist keeps a constant eye on foreign military personnel and arranges for them to take part in specially organized excursions, to attend motion picture showings, concerts, get-togethers, competitions, celebrations of national holidays, etc. In conversations with them he attempts to present in the best light U.S. Government institutions, the courts, political parties, the press, interrelations between classes, the system of education, and government programs of social services and financial care.

Administrative functions for a group of foreign pilots are handled by the U.S. Air Force training officer (in charge of the program) and a liaison officer from the foreign country in question. The former administers all documentation for the trainees, handles matters pertaining to issuing passes, identity documents, and handles the details of their arrival in the United States and departure for their home country. He also approves the information-propaganda program and maintains contact with the liaison officer. The latter assists the U.S. Air Force in training the pilots of his group, makes sure that the trainees observe rules and regulations, including dress, disciplines personnel breaking rules and regulations, and assists course instructors and flight instructors when language difficulties arise as well as in handling other problems. In addition, he regularly presents talks on issues pertaining to the economic, political and military situation in his country.

/Joint pilot training for the air forces of the NATO member nations on a unified program/ has been organized for the purpose of standardizing methods and improving the quality of training personnel and the level of their tactical proficiency (prior to this, training of pilots for the air forces of the FRG and certain other developed capitalist countries was provided in the United States on the basis of separate government agreements on various programs).

A joint NATO tactical pilot training center was established at Sheppard Air Force Base, Texas, in 1981 to accomplish the above tasks. At first it was to be established in Western Europe, but they had allegedly been unable to find an

area with suitable weather conditions and unencumbered airspace. In the opinion of foreign experts, however, the decisive factor in the decision to locate the center on U.S. soil was the Pentagon's endeavor to take control of the training of pilots for NATO air forces, to make the allies dependent on the United States, and to take advantage of a profitable arrangement.

A training wing was formed at the center, containing 3 squadrons. The aircraft inventory totals 157 T-37 and T-38 trainers. It was planned to train each year at this facility 288 young pilots (officer candidates), up to 125 flight instructors, and a certain number of command and administrative officers.

Judging from reports in the Western press, 310 pilot trainees and 110 pilot instructors from the air forces of the FRG, United States, Belgium, Denmark, Netherlands, Norway, Turkey, and Great Britain are currently enrolled at this center (the remaining NATO countries plan to send their personnel here at a later date). Training of instructors is conducted with the aim of adoption of uniform training methods in the national air force schools in the NATO countries. The complete pilot training course at the center runs 55 weeks. Each pilot trainee logs an average of 260 flying hours.

The above-named countries reimburse the United States for all expenses connected with training their personnel in this country, including fees for use of highways, airfields, range facilities, etc.

On the whole training of foreign pilots and other aviation specialist personnel in the United States is aggressively utilized by the Pentagon not so much to generate profit as to draw its allies and developing countries increasingly deeper into the orbit of military preparations, the spearpoint of which is aimed primarily against the USSR and the other nations of the socialist community, as well as against the national liberation movement.

3024
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COMMENTARY ON IMPROVEMENTS IN U.S. FIGHTER AVIATION

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 82 (signed to press 12 Oct 82) pp 52-57

[Article, published under the heading "Air Forces," by Engr-Col (Res) B. Ivanov and Engr-Capt (Res) G. Isayev: "Increasing the Reliability of U.S. Fighters"; passages rendered in all capital letters printed in boldface in source]

[Text] In their endeavor to achieve military superiority over the USSR, aggressive U.S. imperialist circles are counting particularly heavily on qualitative improvement of weapons and combat equipment, including fighter aircraft. As is reported in the foreign press, in improving the performance characteristics of fighters, U.S. companies have taken the road of increasing the design complexity of airframes, powerplants, and equipment. In many instances, however, this has resulted in worsening an aircraft's reliability figures which, in the opinion of foreign experts, has resulted in a substantial worsening of their readiness rate and has increased operating and maintenance costs. In 1968, for example, the percentage share of operating and maintenance expenditures in the U.S. Department of Defense budget was 53 percent of expenditures on military systems during their life cycle, while in 1977 it rose to 66 percent, and there has been a tendency toward a further rise in this figure. At the end of the 1970's the readiness rate of tactical aviation in particular had dropped to 50-60 percent, with a standard of 70 percent.

Endeavoring to correct this situation, U.S. military authorities have proceeded to look for a comprehensive solution to the problem of increasing reliability, which became particularly critical about the mid-1970's when the newest fighters became operational. Reliability research, which began in the 1950's, at a time when the main points of this theory were already known and methods of quantitative estimate of product reliability had been devised, were used as a theoretical basis.

Just what is reliability in the view of foreign experts? They have presently reached a common view that reliability is an integral indicator of the quality of any product, including an aircraft. This indicator is just as real and objective as weight, speed, service ceiling, operational range, etc. In particular, aircraft reliability is defined as its capability to perform specified functions while maintaining performance characteristics on the ground and in the air within specified limits during the required period of time or number of hours logged.

According to the terminology adopted in the United States, reliability is characterized by trouble-free operation, repairability, and length of life, which have quantitative characteristics and therefore can be objectively evaluated. In the foreign press, for example, the following terms are used as a rule to assess reliability of aircraft and aircraft subsystems: mean time or hours between failures, rate of failure, and probability of failure-free operation; for repairability -- labor expenditures on servicing and maintenance, mean time to find and correct a malfunction, and mean time to preflight/turn-around time; to estimate length of life -- safe life, and mean service life.

In the opinion of U.S. military authorities, certain measures must be taken to ensure requisite reliability of combat equipment, and first of all complete monitoring and inspection to ensure that companies meet terms of contract. Toward this end the U.S. Department of Defense issued a special directive in July 1980 which, its authors conceive, will determine this department's future policy in the area of weapons and military equipment reliability. It is believed that practical implementation of this directive will make it possible to boost the readiness rate of weapons systems and the probability that they will successfully accomplish their assigned missions, will reduce expenditures on maintenance and logistic support, will reduce the number of technical servicing personnel, and will make it possible to obtain requisite information on the operation and maintenance indices of systems.

Various provisions of this directive are discussed in the foreign press; in particular, one notes the enhanced role and responsibility of development program supervisors, whose functions now include direct supervision not only over performance characteristics but also reliability indicators. U.S. experts consider defining of basic points and refinement of terminology in the area of reliability to be positive aspects of this document.

For example, "failure" is defined as "movement by any specification or performance characteristic beyond specified limits." The term "reliability in performance of mission," characterizing system reliability only during performance of a combat mission, has been added to the term "reliability," which covered the total number of failures (for an aircraft -- on the ground and in the air). It is believed in particular that the previously employed indicator "typical failure" did not enable one unambiguously to evaluate test results and to determine the reason for a discrepancy between actual reliability and the specified requirements, as well as to estimate operational reliability. Therefore the indicator "failure with an established cause" was adopted, which makes it possible more objectively to examine the reliability characteristics specified in contracts.

In addition, the directive contains provisions to the effect that replacement parts, expendable components and materials, as well as modified equipment shall meet the same reliability requirements as the basic product. In the opinion of U.S. military experts, in order to achieve this, contracts to supply replacement parts should be issued only on a competitive basis. They believe that monitoring and supervision of maintenance in line units by the contractors offers considerable possibilities for improving reliability. It is noted, for example, that the lack of such monitoring leads to a situation where after two

or three aircraft maintenance cycles on the line, components frequently appear in the equipment which differ from the original components in configuration, power requirements and functions performed. Considerable attention is devoted to the matter of reliability testing in the course of development. In particular, there must be an increase in volume of testing, and it is also essential to establish a so-called independent organization to conduct testing to ensure that contractors are holding to the terms of the contract.

Guided by the provisions of the above-discussed directives, Air Force authorities have carried out and intend to continue carrying out in the future comprehensive measures to improve reliability of aircraft equipment, believing that this will become a substantial reserve potential for increasing their combat efficiency. Judging from reports in the foreign press, such measures began to be carried out in the mid-1970's during execution of the program to upgrade the F-14 and F-15 fighters, as well as in development of the F-16 and F-18.

A number of U.S. experts claim that the F-14 and F-15 FIGHTERS (Figure 1) [not reproduced] possess the best performance characteristics of all similar-role capitalist-country aircraft, and therefore should also surpass them in reliability. Securing of the requisite reliability during development of these aircraft was sought by reducing the number of component parts, employment of solid-state electronics, by designing subsystems in modular form, by employing on-board automated monitoring devices, multiple redundancy and cooling systems, by designing in longer life, improving access to equipment and making replacement easier, employing standardized components, etc.

Experience in operating both fighters in line units indicated, however, that in spite of all these measures, their reliability proved to be considerably below the required level. In the opinion of Air Force experts, the principal reasons for this were the aircraft's high degree of technical complexity, imperfections in the methods edifice of theory of reliability, errors in design, and an inadequate level of technology. In addition they believe that the firms which developed the aircraft, since they did not receive special compensation, had a perfunctory attitude toward achieving reliability both during development and flight testing, and the poor figures obtained as a result would frequently be concealed by putting out phonied reports. As a result both aircraft came on the line with undiscovered defects, which had to be corrected during operation.

The following are considered typical defects of these fighters which were direct factors in diminishing their reliability: design-production defects, reduced service life of some components, and poor quality of materials. These factors, in combination with lack of a sufficient number of replacement parts, and ground testing equipment, problems of logistic support, and a shortage of experienced technical specialists resulted in the readiness rate of certain F-14 and F-15 squadrons running at approximately 35 percent during the first years of operation.

Improving the reliability of these fighters, according to reports in the Western press, required costly upgrading programs, which began in 1976. The upgrading process included adoption of design changes, utilization of new materials, improved technology of building the aircraft as a whole, improved product quality control methods, and development of diagnostic systems. In addition, servicing

and maintenance methods were improved in the course of upgrading, special training classes were organized, and new programs were set up for training ground maintenance personnel, plus new aircraft servicing manuals.

An analysis conducted by Navy and Air Force experts made it possible to pinpoint those subsystems which were the greatest factors in diminishing the overall reliability of these fighters. These include first and foremost the turbofan engines and the airborne radars. As was reported in the foreign press, the main reasons for the poor reliability of the TF30-P-414 (on the F-14) and the F100-PW-100 (on the F-15) turbofans were the new type of airflow separation in the compressor or compressor stall (so-called uncorrectable stall), short service life of components, especially in the hot section (combustion chamber, turbine blades), unreliable afterburner cut-in, flameouts, and difficulties in restarting engines.

Improvement in the turbofan control systems reduced the frequency of occurrence of uncorrectable stall. In the F100-PW-100, for example, it decreased (per thousand flight hours) from 3-4 cases in 1978 to 0.5-0.7 in 1980. Since according to U.S. experts the problem of stall has not yet been fully solved, an audio alarm warning the aircrew of a temperature rise in the turbofan is being installed in fighter cockpits to prevent emergency situations.

Research has shown that the poor service-life figures on hot-section components in the TF30-P-414 and F100-PW-100 engines is due to the fact that they are subjected to higher thermal stresses than was assumed during design. It was ascertained that the mistake had been failure to take into consideration a new air combat maneuver tactic where the pilot moves the turbofan throttle control quickly and repeatedly. The number of afterburner cut-ins on the F-14 aircraft increased from 597 to 2250 per thousand flight hours. This resulted in more rapid wear on turbofan hot sections and a shortened service life. This problem was to be corrected by using materials with improved durability under heat, as well as improvement in the engine component manufacturing process.

It was reported in the foreign press that measures taken to improve the reliability of these turbofans enabled Pratt and Whitney to put a warranty on engines and engine components. It is also planned to continue improving the turbofan engine, the main goal of which, in addition to reducing the frequency of uncorrectable stall, is to extend time between overhauls and engine service life, as well as to extend time between hot-section inspections. In particular, it is planned to extend time between special inspections of the TF30-P-414 from 550 to 1000 hours, and to extend service life from 1100 to 2000 hours. Further improvement of the F100-PW-100 turbofan, including the high-pressure turbine blade cooling system, fuel nozzles and other parts will make it possible, according to calculations by experts, to extend engine service life to 4 years.

Judging from reports in the Western press, as a result of upgrading, the required aircraft and aircraft systems reliability figures were reached only by 1980, that is, 6-8 years after the fighters became operational. For example, the mean time to failure of the AWG-9 weapon control system radar on the F-14 has increased from 2.2 to 30 hours, the AN/APG-63 radar on the F-15 to 60 hours and the TF-30-P-414 turbofan -- from 18.6 to 32.8 hours. It is also reported that for the F-14 aircraft purchased in fiscal 1979 mean flight time

between failures increased from 0.3 to 2.5 hours, while the readiness rate was 89 percent. In 1980 mean time to failure for F-15 fighters (with a total of 100,000 hours flown) was 2 hours, with a readiness rate of 59 percent.

It is noted, however, that fighter maintenance costs continue to be high. For the F-14 and F-15, for example, it is necessary to expend 49 and 29.3 man-hours respectively per flight hour, as compared with the earlier projected 20 and 11.3 man-hours respectively. Considerable additional funds have been spent on improving these aircraft's reliability. In particular, expenditures on the F-14 totaled 478 million dollars, and about 500 million for the F100-PW-100 turbofan. In addition, considerable expenditures were required for the purchase of an additional quantity of replacement parts, the need for which had grown due to the rapid wear of certain component parts. It was reported in the foreign press that the problem of shortage of spare parts, which had become quite critical by 1978, led to a situation where they were even taking components from grounded aircraft to keep fighters combat-ready.

According to information in the foreign press, scientific and technical advances in the field of aviation enabled the Americans at the end of the 1970's to begin shifting from the predominant practice of bringing reliability up to the required level during operation to securing reliability chiefly during the aircraft design and development process.

THE F-16 AND F-18 FIGHTERS (figures 2 and 3) [not reproduced] are the first aircraft the development of which, from the very commencement of the design process, took into account ensuring the requisite reliability. It is reported in particular that an established system of rewards served as an incentive for guaranteed accomplishment of these requirements, a system providing for payment of bonuses to companies for reaching specified reliability figures as well as for a substantial decrease in the cost of a fighter life cycle.

In the opinion of U.S. Department of Defense officials such an approach, although accompanied by an increased cost of development, makes it possible not only to reduce operating and maintenance costs and the life-cycle cost but, and this is most important, to attain their warrantied performance figures within a short time after the aircraft become operational. For example, the contracts to develop the F-16 and F-18 included the following reliability figures: mean time between failures 2.9 and 3.7 hours, labor for servicing and maintenance per flight hour -- 19.6 and 18 man hours respectively. Probability of failure-free operation in the air was to be 90 percent for the F-16.

It was reported in the foreign press that mean time between failures on the airframe and aircraft equipment for the regular production F-16 will be 6.1 hours, 66 hours on the powerplant, up to 45 hours on the AN-APG-66 radar, 8.3 hours on the electronics, 85 hours on the cannons, 940 hours on the missile firing gear, and 30 hours on the flight control system. The subsystems of the F-18 are even more reliable; in particular, mean time between failures should be 106 hours for its AN/AGP-65 radar, 30 hours on its electronics, and up to 173 hours for the F404-GE-400 turbofan.

The aircraft companies carried out an aggregate of measures to make the F-16 and F-18 fighters highly reliable, including the following: they established staff teams of reliability experts, who took direct part in the designing process; they drew up plans for securing reliability; they introduced periodic inspection of designs by company officials and the armed forces for the purpose of monitoring this indicator; they improved existing and adopted new methods of ensuring reliability during design and testing. At the same time, in the opinion of U.S. experts, attainment of high fighter reliability also became possible thanks to the execution of certain design measures. In particular, they include limiting the level of working parameters of subsystems and a substantial decrease in the total number of parts. For example, mean time between failures is 22 and 5 hours respectively for AN/APQ-113 (F-111) and AN/APQ-120 (F-4E) radars, which consist of 12,000 and 16,000 parts respectively, while the figure is 45 hours for the F-16's AN/APG-66 radar (8000 parts).

The method of limiting the level of working parameters was used in developing the majority of components for F-18 electronics, which were figured for lower current, voltage, power, and heating temperature of connectors, as well as in designing the F404-GE-400 engine. Preliminary studies indicated that with an increase in such a turbofan engine parameter as specific thrust, difficulties in guaranteeing engine reliability increase substantially. This conclusion was also confirmed by operating experience with the F100-PW-100 turbofan, which has a specific thrust of 10 and poor reliability. Therefore a smaller specific thrust (7.5) was chosen for the F404-GE-400, in spite of the fact that this worsened its performance characteristics.

It is noted in the Western press that other new reliability improvement methods were used in development of the F-16 and F-18 fighters, which were particularly extensively applied in the F-18 development program. For example, the requirements on this aircraft and its testing methods were formulated taking into consideration future operating conditions.

In particular, they determined the actual flight training and combat use profiles, and they took into consideration chance occurrences of exceeding standard flight operating conditions, conditions of servicing and maintenance with land basing, carrier basing, and in storage. The values of anticipated stress loadings in flight, vibration, air temperature, altitude, humidity, dust and salts in the air established as a result of this analysis form the basis for formulating requirements on the F-18 and its subsystems.

In designing subsystems they also employed the method of reducing the ratio of total operation (on the ground and in the air) to time in the air, chiefly by reducing operation on the ground. For the aircraft as a whole this ratio was to be 1.15, 1.03 for weapon control systems, and 1.19 for turbofans. Reduction of turbofan operation on the ground was to be achieved by eliminating balancing tests when installing an engine on an aircraft, since it had already been done at the factory. U.S. experts believe that in addition to improving reliability this economizes in engine life and fuel consumption and cuts operating costs.

Particular attention in developing the F-18 was devoted to combating corrosion, which is a complex problem in the operation of carrier-based aircraft. Therefore extensive use was made of corrosion-resistant materials (composite materials and a special aluminum alloy), which partially replaced steel. In addition, a new method was employed: coating some steel parts with a thin layer of aluminum, such as landing gear, arresting hook, stabilizer hinge pins, and maintenance access covers.

The reliability of an aircraft's fasteners should be secured by increasing bolt strength (increased by a factor of three over the designed strength) and by improving the bolt head design, which reduces the number of cases of bolts shearing when excessively tightened. At the same time the number of types of fasteners was reduced to 45 (they total 210 on the F-4 fighter).

It is noted in the foreign press that another feature of the F-18 is the fact that it is equipped with a single automated monitoring system, which makes it possible to determine the location of a malfunction in 95 percent of the equipment within 5 minutes. This system's indicator displays are mounted not only in the cockpit but also on a panel by the nose gear, which makes the job easier for ground personnel. In addition, portable sensing-indicator units have been developed, which make it possible quickly to determine the parameters of some equipment not covered by the monitoring system, tire pressure, for example.

Speeding up servicing and maintenance on the F-18 is also promoted by the fact that servicing procedures can be performed without hooking up to ground power. In particular, the aircraft is equipped with an auxiliary power plant and an avionics cooling system.

A large part of the F-18's equipment has undergone additional laboratory testing for reliability, simulating actual operating conditions, including with change in temperature, the effect of random and sinusoidal vibrations, as well as humidity. The following new types of bench tests were adopted for the F404-GE-400 turbofan: extended tests with flight conditions simulation, accelerated equivalent-cyclic tests, tests for duration of operation with a defect present, test for determining performance characteristics beyond designated service life, plus others.

As a result of comprehensive testing and subsequent improvements, judging from reports in the Western press, this engine's mean time between failures reached 295 hours with a total of 4000 hours on the aircraft, which surpasses the required performance. It is also believed that the F404-GE-400 turbofan differs from existing engines of the same thrust class by having a smaller number of servicing and maintenance procedures and lower-cost replacement parts. For example, labor expenditures for servicing and maintenance per flying hour on an F404-GE-400, with 3000 hours of operation, ran 1.2 man-days (the figure is 3.3 for the comparable series J79 turbojets), frequency of replacement of parts per thousand hours of flight -- 2 (3.2), and cost of replacement parts -- 10 percent of the cost of the aircraft (18).

According to the calculations of U.S. experts, increasing the reliability of the F-18 fighter will make it possible to reduce the total number of ground

personnel, which will be 229 persons for a squadron of 12 aircraft, including 21 officers, while the figure is 278 men (37 officers) in F-4J squadrons, and 277 (23) in A-7E squadrons. It is believed that upon reaching the required reliability, proper logistic support, numbers and qualification of servicing and maintenance personnel, the readiness rate of the F-18 fighter should exceed 85 percent (F-4J and A-7E aircraft have a readiness rate of 60 percent).

It is noted in the foreign press that although testing of the F-18 aircraft confirmed its high degree of reliability, in its performance characteristics it does not fully meet the requirements of Air Force authorities. In particular it is believed that the fighter has excessive structural weight, inadequate combat radius and maneuver capabilities, which will require additional modifications in the process of operation. It is also noted that as a result of measures to increase reliability and improve the supply of spare parts, the F-16 fighter is currently the highest combat-readiness rate aircraft in the Air Force, in spite of unresolved problems of engine reliability. In 1960 the readiness rate for the F-16 was 74-76 percent, while in 1981 it increased to 80 percent during the conduct of NATO exercises. In the opinion of U.S. experts, methods of ensuring reliability of the F-16 and F-18 aircraft will be extensively employed in the development of future fighters and other military hardware.

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COMMENTARY ON U.S. NAVY HELICOPTER

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[Article, published under the heading "Naval Forces," by Col (Res) I. Kutsev: "U.S. Super Stallion Helicopter"]

[Text] U.S. naval authorities are devoting close attention to the development and improvement of assault transport helicopters, which are extensively employed in Marine Aviation. They are designated chiefly for rapid airlifting of Marines, weapons, various combat equipment and gear during an amphibious landing operation. They are also to be used to increase the mobility of U.S. "rapid deployment forces." In addition, helicopters of this type deliver to warships, including aircraft carriers, requisite weapons, equipment and gear, and carry personnel to and from shore. Principal efforts of foreign experts are directed toward designing vehicles with large lift capacity, high reliability and survivability.

According to reports in the U.S. press, the CH-53E Super Stallion is a helicopter which meets the above requirements. It is based on a preceding modification of the Sea Stallion family of helicopters, the first of which was adopted by the Navy in 1969. In 1973 the Navy signed a contract with Sikorsky to develop the CH-53E, and at the beginning of 1978, following completion of flight testing of two production prototypes, the results of which were given an affirmative evaluation by U.S. naval authorities, this company commenced series production. It is planned initially to purchase 16 helicopters for the Navy and 33 for the Marines. A total of 126 units are to be purchased. The first two production helicopters were delivered to the 464th Marine Heavy Assault Transport Helicopter Squadron, based at New River, North Carolina. Deliveries are to be completed by mid-1984.

According to a report in the foreign press, the CH-53E is the heaviest of the foreign assault transport helicopters which meet the requirements of Marine and Naval Aviation authorities. It is believed that equipping combat units with these helicopters will increase to a considerable degree the effectiveness of conduct of amphibious assault operations. In the estimate of U.S. experts, this helicopter can carry ashore up to 55 Marines with weapons and approximately 93 percent of the Marine division's organic weapons. In particular, employing a single-point external cable sling arrangement, it can carry a 155 mm

howitzer with ammunition, a light tank weighing approximately 16 tons, a container (1.4 x 2.4 x 6.0 m) carrying up to 14,500 kg of supplies, a bulldozer weighing 12,900 kg, M54 trucks, plus other equipment. The helicopter is capable of transporting, without disassembly, damaged Navy fixed-wing and rotary-wing aircraft of all types (see photograph) [not reproduced], except for the F-14, A-6 and E-2 aircraft, which require partial takedown. It is also equipped with a dual-point external cargo sling system (see color insert) [not reproduced], with the aid of which it can haul 12-ton cargo-carrying containers at speeds up to 175 km/h and reduce container swing.

According to information in the U.S. press, CH-53 helicopters are being assigned an important role in logistic support of Harrier V/STOL aircraft during close air support of landing forces, as well as small-displacement ships, to be supplied with ammunition, equipment, gear and spare parts from hovering mode. It can be used with amphibious assault ships, such as the "Iwo Jima" class.

The helicopter is of a conventional design, with a seven-blade main rotor and four-blade tail rotor, with retractable main gear and nose gear. Fuselage load-bearing elements (longerons, frames) are of metal, while the cargo cabin section is of a composite materials (fiberglass and epoxy resin), also used for the engine fairings, leading and trailing edges of the tail boom, and the leading edge of the stabilizer. The helicopter is designed for ultimate vertical and longitudinal load factors of more than 20, and lateral -- up to 10. The lower part of the fuselage is watertight, which permits emergency on-water landings. Armor is to be added to protect the crew and critical components.

There is a hinged loading ramp and cargo hatch door with hydraulic drives at the rear of the cargo cabin. Three hooks are mounted under the fuselage: two (forward and aft) are for a two-point cargo sling system, while the third, positioned between them, is for a single-point system.

Each system has a cargo winch with a display containing real-time information on change in the helicopter's flying weight and center of mass as fuel is consumed (when the single-point sling system is being used, the helicopter's center of mass can shift within a range of 610 mm). A 270 kg rescue winch is mounted on the right of the crew cabin. There is a remote-control electric winch and a roller conveyer in the cargo cabin.

The main rotor has feather hinges as well as combined lag and flapping hinges, and is equipped with a hydraulic blade folding system; the rotor blades are made of titanium, with fiberglass skin. Their honeycomb-construction trailing edges are made of Nomex. Blade efficiency was increased by improving the airfoil and increasing warp from 6 to 14 degrees.

The tail rotor blades are rectangular and hinge-attached. Longerons, ribs and skin are of aluminum. To increase lift the tail rotor is mounted on a tail boom offset 20 degrees left in relation to the helicopter's longitudinal axis. The tail boom together with tail rotor folds in 2 minutes by hydraulic drive. A stabilizer is placed on the right side and upper part of the tail boom, which reduces pitching moment during a landing approach and simplifies the process of tail boom folding.

The helicopter is powered by three T64-GE-415 turboshaft engines rated at 4380 horsepower each for 10-minute power output, 4145 horsepower for 30 minutes, and 3696 horsepower at maximum sustained output. Fuel is carried in four tanks with a total capacity of 3890 liters (two in each sponson). A jettisonable fuel tank (4820 liters) is mounted on pylons under each sponson. In ferry configuration the cargo cabin can hold up to 7 tanks of 1136 liters each (total capacity 7950 liters). The helicopter is equipped with systems for refueling in midair and from ships in howevering mode (the telescoping refueling probe is located on the right side of the helicopter's nose). Following are the principal specifications and performance characteristics of the CH-53E helicopter.

Total crew	3
Maximum takeoff weight, kg:	
with cargo on external sling	33,340
with cargo in cargo cabin	31,640
Empty weight, kg	14,900
Normal cargo weight, kg:	
on external sling	14,500
in cargo cabin	13,600
Maximum cargo weight on external sling, kg	16,000
Speed with takeoff weight of 25,400 kg at sea level,km/h:	
maximum	315
cruising	278
Rate of climb, m/s	14
Ceiling, m:	
hovering, in ground effect	3,520
hovering, out of ground effect	2,895
service	5,640
Operating radius with cargo, km:	
with 14,500 kg on external sling	about 90
13,600 kg in cargo cabin	185
Maximum ferrying range, km	about 2000
Diameter of tail rotor, m	6.1
Diameter of main rotor, m	24.0
Total length, m:	
without folded main rotor blades and tail boom	30.2
with folded main rotor blades and tail boom	18.5
Height, m	8.7

Sikorsky is developing a minesweeping version of the CH-53E, to be designated MH-53, on a Navy contract. These aircraft will replace the RH-53 minesweeping helicopters presently in use with the NAVY.

The MH-53 will make it possible to employ more sophisticated and heavier sweeps, since the pulling force on the tow cable will increase from 9000 to 13,600 kg. Duration of sweeping in a given area will increase from 2.9 to 4 hours.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTARY ON U.S. NAVY ACOUSTIC WARFARE EQUIPMENT

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 82 (signed to press 12 Oct 82) p 72

[Article, published under the heading "Naval Forces," by Capt 3rd Rank V. Fedorov: "U.S. Navy Shipboard Sonar Countermeasures System"; passages rendered in all capital letters printed in boldface in source]

[Text] The U.S. Navy, alongside development of torpedo weapons, is continuing development of means of combating torpedoes. In particular, the automated SSAWS (Surface Ship Acoustic Warfare System) is being developed for surface ships. It is designed for detection, sonar countermeasures, and evasion of torpedoes, as well as suppression of hostile sonar receiving circuits. The system consists of a sonar installation, means of sonar countermeasures, and a processor.

THE SONAR INSTALLATION will handle tasks of detecting torpedoes and intercepting hostile sonar signals. The AN/SQR-13 sonar with antenna in a keel fairing will be employed.

SONAR COUNTERMEASURES GEAR includes a control and display console, launchers and racks with jamming devices, as well as an AN/SLQ-25 sonar trap.

The control and display console equipment receives information on detected torpedoes from the sonar operator, alerts the appropriate shipboard stations, helps determine and displays recommended optimal countermeasures, selects the requisite type of jamming device, gives the command to load launchers and fire jamming devices in the direction of the target. All these operations can be performed automatically, semiautomatically, or manually.

A ship would carry two or three launchers on carriages traveling on guide rails, each with its own rack and full set of jamming devices of three types. The launchers are loaded with the selected jamming device and fired.

The AN/SLQ-25 sonar trap includes a sonar emitter, housed in a torpedo-shape watertight case, a towing device with a tow cable and noise generator, which diverts a torpedo's homing head from a ship (see photograph) [not reproduced]. The trap should generate a minimal level of interference for its own ship's sonar and that of other friendly ships.

THE PROCESSOR automatically feeds an alarm to the control and display console and facilitates selection of optimal countermeasures when a target appears which is classified as a torpedo.

In the opinion of U.S. experts, on detecting a torpedo the SSAWS system is capable of countering it by selecting optimal AN/SLQ-25 trap operating conditions, by firing several types of jamming devices, and by automatic selection of the requisite ship maneuver.

The SSAWS shipboard acoustic warfare system will be installed on upgraded "Spruance" class destroyers beginning in the first half of the 80's.

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PERCEPTIONS, VIEWS, COMMENTS

'KRASNAYA ZVEZDA' ON FALKLANDS FIGHTING

[Editorial Report] Moscow KRASNAYA ZVEZDA in Russian 11 and 14 January 1983 on page 3 and 15 January on page 5 publishes a series of articles by Commander Ye. Nikitin totaling 6,000 words entitled "Colonial Adventure in the South Atlantic." The series, which is based on foreign press materials, describes the progress of last year's Argentine-UK hostilities in the Falkland Islands and the main conclusions which Western military specialists have drawn from them. The first article deals with the operations of surface ships and submarines, the second with aerial operations, and the third with the landing and onshore troop operations. The series concludes as follows: "The armed conflict in the South Atlantic, the responsibility for which is borne by Washington together with London, graphically demonstrated the intention of the United States and Britain not to deviate from the policy of colonialism and the militarist course aimed at creating crisis situations and fueling international tension.

CSO: 1801/123 END