MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT: WARSAW PACT JOURNAL: From the Exercise Sphere--1973 Exercises

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on articles from a SECRET Soviet publication called Information Collection of the Headquarters and the Technical Committee of the Combined Armed Forces. This article reviews the results of seven exercises held by Warsaw Pact forces in 1973. These exercises were the following: the BASHYA-73 command-staff exercise in Hungary; the SEVER-73 combined two-stage army command-staff exercise in East Germany; the FEVRAK-73-multilevel-command-staff-exercise-involving-elements-of-the Polish Armed Forces and Belorussian Military District; the NEYTMON-73 combined front command-staff exercise with communications in Czechoslovakia; a combined-arms tactical exercise in the Silesian Military District of Poland; an allied naval exercise and roadstead assembly in the Black Sea; and a combined naval exercise in the Baltic. This journal is published by Warsaw Pact Headquarters in Moscow, and it consists of articles by Warsaw Pact officers. This article appeared in Issue No. 6, which was published in 1974.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned the Codeword [ ].

William F. Nelson
Deputy Director for Operations

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Summary:
The following report is a translation from Russian of an article from a SECRET Soviet publication called Information Collection of the Headquarters and the Technical Committee of the Combined Armed Forces. This journal is published by Warsaw Pact Headquarters in Moscow, and it consists of articles by Warsaw Pact officers. This article reviews the results of seven exercises held by Warsaw Pact forces in 1973. These exercises were the following: the BASHTYA-73 command-staff exercise in Hungary; the SEVER-73 combined two-stage army command-staff exercise in East Germany; the FEVRAL-73 multilevel command-staff exercise involving elements of the Polish Armed Forces and Belorussian Military District; the NEYTRON-73 combined front command-staff exercise with communications in Czechoslovakia; a combined-arms tactical exercise in the Silesian Military District of Poland; an allied naval exercise and roadstead assembly in the Black Sea; and a combined naval exercise in the Baltic. This article appeared in Issue No. 6, which was published in 1974.

Comment:
An article by Engineer General-Lieutenant B. Kuchera referring to the GOLIASH system mentioned briefly in this article was published in the same issue of the Warsaw Pact Journal.
From the Exercise Sphere

Command-Staff Exercise BASHTYA-73

The participants in command-staff exercise BASHTYA-73, which was conducted in June 1973 on the territory of the Hungarian People's Republic, were the staffs of units, large units, and formations of the Soviet Army and the Hungarian People's Army, and an operations group from the staff of territorial defense of the Hungarian People's Republic which, against the background of the general operational situation, worked out tasks appropriate to territorial troops.

In planning the exercise, the directing officers took account of such important requirements as further improving the organization and methods of conducting combined combat operations by formations and large units of allied armies, ensuring uninterrupted and stable troop control in various situations, and improving coordination between troop groupings and arms of troops.

The exercise enabled the directing officers and participating staffs to work out more concretely all problems of coordination among allied troops and paved the way for even greater coordination among them in conducting combined operations.

During the exercise, the coordinating staffs made wide use of various operations groups. The advisability of exchanging operations groups and liaison officers among large units and formations of different countries was confirmed, as was the need to prepare them thoroughly in advance.

The exercise was carried out under conditions whereby combat operations were initially conducted using only conventional means of destruction. Accordingly, commanders and staffs devoted their main attention to bold maneuvering of forces and means in order to create the necessary superiority over the enemy and to intensify the efforts of the troops during their advance on the main axis. Troop operations were coordinated with air and artillery strikes to rout the main enemy grouping. Problems of maintaining nuclear strike means at constant readiness were
worked out at the same time.

The exercise enabled generals and officers to broaden their knowledge of the theory and practice of military art, to improve the practical skills of commanders and staffs in commanding subordinates, and to strengthen the ties of fraternal friendship and coordination between the staffs of units, large units, and formations of the Hungarian People's Army and those of the Soviet Army.

At the critique of the exercise, skilful actions on the part of commanders and staffs were noted by the director of the exercise. Generals and officers of the Soviet Army showed a high degree of skill in planning combat operations, organizing cover of the national boundary, and breaking through the enemy defense. They efficiently utilized air and artillery strikes, skilfully organized coordination with adjacent large units of the Hungarian People's Army, and successfully echeloned their forces and means in order to intensify the efforts of their troops during the advance. The generals and officers of the Hungarian People's Army showed deep theoretical and practical knowledge of how to plan an operation under adverse terrain conditions, and in organizing combined combat operations by large units of fraternal armies.

Two-Stage Army Command-Staff Exercise SEVER-73

Exercise SEVER-73, a combined two-stage army command-staff exercise, was conducted on the territory of the German Democratic Republic, using communications means and representational troops.

The participants in the exercise were:
-- from the National People's Army of the German Democratic Republic -- the headquarters of a military district, operations groups from district units, the headquarters of two divisions and a rocket brigade, as well as other staffs, representational troops, and forces and means of combat support;
-- from the Soviet Army -- a division staff, with the staffs of its units and with support subunits, and an operations group from an aviation division of fighter-bombers.

The representational forces consisted of one motorized rifle regiment each from the East German National People's Army and the Group of Soviet Forces, Germany and one fighter-bomber regiment, as well as certain units
of ground forces of the National People's Army, of air forces of Air Defense and of the People's Navy of the German Democratic Republic.

In this exercise the participants worked out the most complex questions of organizing and conducting a modern army offensive operation on a coastal axis, in coordination with naval forces, airborne landing forces, and aviation.

Prior to the exercise, a three-day staff exercise was held with the staffs of the army, the divisions, and the units, and in one motorized rifle division -- a staff exercise in the field using communications means.

The command-staff exercise was conducted in four stages. In the first, lasting 48 hours, questions were worked out regarding the conversion of the troops from peacetime to wartime status, and an offensive operation was planned. In the second, lasting 30 hours, the troops negotiated a cover zone and broke through a prepared enemy defense without using nuclear weapons. The third stage, lasting eight hours, featured army participation in an initial front nuclear strike and the transition to combat operations using nuclear weapons. The fourth featured the working out, in the space of 24 hours, of problems regarding the development of an offensive with forced crossing of water obstacles and organization of the antilanding defense of the seacoast.

The army commander made and announced his decision on the operation three hours and 30 minutes after receiving the operational directive from the front. The plan was based on routing the enemy by delivering two strikes against his grouping with the aim of splitting it and destroying it piecemeal. The main strike was to be delivered by the forces of three divisions, the second strike by the forces of one division and a separate tank brigade. It was planned to have a tank division in the army's second echelon on the axis of the main strike.

All of the division commanders planned to negotiate the forward security zones with the forces of their forward detachments. The composition of these detachments was determined according to the forces, means, and combat capabilities of the enemy facing them.

The breakthrough of the forward defense perimeter in the army's zone was to take place in two sectors with a total width of six kilometers. The density of artillery and mortars was brought up to 70 to 82, and that of tanks up to 20 to 25 per kilometer of the breakthrough front.

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Nuclear means were employed against the most important enemy targets and objectives on the axis of the army main strike. After delivery of the nuclear strikes, the advancing forces sustained heavy losses, control of them was disrupted, and hazardous zones of radioactive contamination formed along the routes of attack and advance. The army commander and staff required about three hours to collect and analyse situation data and make a decision.

Questions of committing the second echelon of an army to battle, of developing an offensive with forced crossing of canals, and of going over to coastal defense in coordination with naval forces were worked out at the exercise, using the method of command-staff map games, but with actual relocation of control posts.

In the final stage of the exercise, the Russian language was used for the planning of combat actions, the assignment of tasks to troops, for records, and for reports on decisions.

In order to refine numerous questions of operational preparation, representational forces and means were used throughout the exercise, thus making it possible to check more thoroughly on the feasibility of decisions made and the validity of operational-tactical calculations (march speeds, time periods for troops to advance to different lines), the timeliness with which the troops receive their assignments, and the procedure for final reconnaissance of enemy targets prior to delivery of a nuclear strike. This method increased the responsibility of commanders and staff officers at all levels when making decisions and carrying out their functions.

During the exercise, certain units and subunits of ground forces, aviation, air defense, and the People's Navy were placed on alert status, and they took part in acting out individual episodes of combat actions against the background of the general operational-tactical situation. Thus, a tank regiment made a night march of 180 kilometers, deployed in good time, and from the march delivered a counterattack against the flank of an enemy force which had made a penetration. A fighter aviation regiment, after carrying out a task to cover the disembarkation of a tactical amphibious landing force, was rebased to an alternate (dirt) airfield located 100 to 200 kilometers from its main field. Assignments were worked out in a practical manner for destroying an enemy at sea and landing a reinforced motorized rifle battalion on an undefended seacoast.

A SPETSNAZ battalion was used to set up a more realistic situation for the functioning of the army radio and radar means under conditions of heavy
At the exercise, wide use was made of means of automating and mechanizing troop control, especially computer equipment.

At the army command post there was a mechanization and automation group, engaged in supporting the army staff with the required operational-tactical calculations. Programs were prepared for implementation, designed mainly for the operations department, the staff of rocket troops and artillery, and the air defense department. All control posts were partially mechanized and employed standardized combat documentation.

During the exercise, measures were taken to further strengthen the friendship and fraternal ties between the soldiers of the National People's Army of the German Democratic Republic, those of Soviet Army, and the local population.

Multilevel Command-Staff Exercise FEVRL-73

In the multilevel (army -- division -- regiment -- battalion) command-staff exercise FEVRL-73, problems were worked out with regard to planning, organizing, and conducting an army offensive operation under conditions of nuclear warfare.

Assigned to participate were one army headquarters with support units, the headquarters of two mechanized divisions and one tank division (with regiment and battalion staffs), the headquarters of large units of rocket troops, air forces, and air defense of the Polish Armed Forces, and an operations group from a motorized rifle division of the Red Banner Belorussian Military District of the Soviet Army.

Method of organizing and conducting the exercise. Assigned as directing officers and umpires were groups of generals and officers from the central directorates of the Ministry of National Defense, the branches of the armed forces, and the arms of troops headed as a rule by the chiefs or their deputies. During the exercise, each group studied one of the most important problems, reporting their results to the directing officers. These reports were used by the directing officers to set the course of the exercises, thus making them more instructive and dynamic.
The main decisions of the army commander and the commanders of the large units with regard to the situation, and the estimates made by their staffs, were tested by practical troop actions. For example, a nighttime troop regrouping planned by the army staff called for an average speed of advance of 25 kilometers per hour. In order to test the validity of this estimate, the directing officers alerted a mechanized regiment, which made a night march of 120 kilometers at an average speed of 20 kilometers per hour. This result was used to make the necessary adjustments in acting out combat operations.

Another example. The camouflage plan called for preparing a siting area for an operational-tactical rocket battalion. In order to test the validity of the estimates of forces and time required, forces and means of this type were allocated to actually carry out this assignment.

The planned laying of a pontoon bridge over the Oder River was also tested in practice.

In addition, field units were brought in for actual operations in all cases where the need arose to test the correctness of estimates and decisions. This method of conducting exercises significantly increased the responsibility of commanders and staff officers for the fulfilment of their functional duties.

Participating in the exercise was a group of officers, headed by the chief inspector, which collected, studied, analyzed, and collated the work done by the staffs of large units and units in connection with making operational-tactical estimates. The data thus obtained are to be used in the course of inspectors' examinations.

The condition of combat equipment and weapons in units and large units was checked during the exercise by representatives of the Ministry of National Defense. On the basis of this check, and taking into account the malfunction rate of the combat equipment and weapons, appropriate changes were made in the acting out of combat operations.

Control posts. The exercise showed that the existing organizational structure of army, large unit, and unit headquarters for the most part meets the requirements and is capable of ensuring reliable command of forces under adverse conditions.

It is of great importance here to provide staffs at all levels with uniform special transport means and with staff buses having communications.
means and standard equipment for operating under field conditions.

The staffs of the formations, large units, units, and subunits of the Polish Armed Forces at the exercises were fully equipped with current models of command-staff vehicles having the communications means and the encoding and automating equipment necessary for stable control.

Great efficiency in control was achieved by having (up to and including the battalion level) mobile control posts mounted on armored personnel carriers of the Skot type and equipped with appropriate communications equipment. An airborne command post aboard a helicopter was employed for control within the army.

Operations groups. The exercise showed that in combined combat operations by Soviet and Polish forces, there is no need for a mutual exchange of operations groups when the majority of command personnel from the Polish Armed Forces can speak Russian. When this is the case, it is sufficient to allocate one operations group from a higher staff to the staff of the national large unit.

Knowledge of the Russian language improved throughout the exercise. For this purpose, certain days were designated in which document control, document processing, and reporting were handled in Russian.

Radioelectronic warfare. During the exercise, actual jamming was set up by radio means, for which purpose 16 radio jammers and eight radar jammers were deployed. Wire and radio-relay communications were shut down, which made it possible to train staffs in radio operation under conditions of active radio jamming.

Organization and conduct of reconnaissance. The method of building up the situation was instructive. For example, the volume of reconnaissance data from the umpires depended on the quality of reconnaissance organization of all types. Information from "prisoners", captured documents, and radio intercepts was in the language of the probable enemy. For these purposes, wide use was made of tape recordings of the radio exchange which took place in certain exercises carried out by NATO forces. Required data on the enemy were also transmitted directly from aircraft.

The methods used to transmit reconnaissance data and information on the enemy contributed to further improvements in the capabilities for collection, processing, and collation of materials and to their use in planning. This also served to improve the foreign language proficiency of
officers and official translators.

Air defense. The exercise devoted special attention to working out problems of covering forces from enemy air strikes by the combined forces and means of Air Defense Forces of the Country, field air defense, and the fighter aviation of the air army. Great importance was attached to a comprehensive analysis of the air situation and to producing the calculations required when air defense aircraft are operating under adverse weather conditions. During the exercise a plan was worked out for air defense of troops by available forces and for control from a combined command post. This facilitated a more thorough and operational analysis of the air situation, the allocation of targets, and the assignment of tasks to the executors.

During the exercise a great deal was done to strengthen the friendship and fraternal relations between Soviet and Polish soldiers, as well as between the soldiers and the local population. For this purpose, Soviet soldier delegations from a motorized rifle division of the Belorussian Military District held 14 meetings with Polish soldiers from various garrisons, with workers from industrial enterprises, representatives of Party and government agencies and institutions, and students.

Front Exercise NEYTRON-73

In May 1973, under the direction of the Czechoslovak Ministry of National Defense, NEYTRON-73, a one-sided, two-stage combined command-staff exercise with communications means, was conducted in the field.

The theme of the exercise was "Conduct of a front (army) offensive operation at the beginning of a war in which only conventional means of destruction are employed in the initial stage but subsequently nuclear weapons are used as well".

Assigned to the exercise from the Czechoslovak and Soviet Armies were the headquarters of military districts, of a combined-arms army and an air army, and of an army corps; army operations groups from Air Defense of the Country; and the command of border troops. The exercise dealt with such problems as the preparation and conduct of front and army offensive operations and the coordination of allied staffs in carrying out combined combat tasks.
The exercise began by bringing the forces up to combat readiness and it proceeded in three stages. In the first stage, 72 hours were spent working out the covering of the national boundary by subunits of the border troops in coordination with regiments allocated from first-echelon divisions. The troops advanced to the designated operational areas, offensive operations were planned and prepared, and enemy aggression was repulsed at the same time the main forces of the front went over to the offensive.

The main features of the second stage, lasting about 24 hours, were the transition to combat operations using nuclear weapons, the repulse of a counterstrike by enemy operational reserves, the commitment to battle of an army corps from the front second echelon, and the restoration of troop combat effectiveness following the use of weapons of mass destruction.

In the third stage, front forces spent 48 hours in developing an offensive operation with forced crossings of large water obstacles in coordination with airborne landings, and in surrounding and destroying large enemy groupings. The commitment of a second-echelon army to battle was planned.

Much attention was devoted at the exercise to the work of staffs -- the collection and processing of situation data, the performance of various types of operational calculations for planning, and the working out of planning documents. The work of the staffs was based on a previously prepared method which set forth in detail the tasks to be carried out by staff officers and departments in the preparation and formulation of the commander's decision and in the implementation of troop control within precise time limits. The network graph serves as the basis for working out such a method, including the entire range of activities of the commander and staff from the moment the combat task is received until the forwarding of orders and instructions to the troops and the monitoring of their fulfilment. The method is worked out according to the type and principal stages of combat operations, for example, the commander's making of a decision for an attack (defense), for repulsing a counterstrike, or for making a forced crossing of a large water obstacle. The creative application of a prepared method by a well-coordinated staff can greatly influence how well and how rapidly they fulfil their functions. For example, about four to five hours were required by the staff of one of the armies to make and formulate a decision for an offensive operation, while about 1.5 to 2.5 hours were required to carry out tasks during the operation, depending on their complexity.
A task to provide stable control and coordination among allied staffs was carried out at the exercise in an instructive manner. In addition to organizing and ensuring reliable communications by technical means between the staffs of the Soviet Army front and army corps, the method of personal contact between individual officers was widely used. In addition, to ensure the fullest mutual understanding in dealing with various problems, the front and corps staffs exchanged operations groups. There was a detailed working out of problems of organizing and supporting the coordination of the commitment of an army corps to battle with a first-echelon army. Under the command of the deputy commander of the front, the army was given more specific tasks to support the corps advance to the line of commitment to battle, to support combined fire action against the enemy in the zone of commitment, and to secure the corps boundaries and flank. Such actual carrying out of combined tasks unquestionably contributed to fuller mutual understanding and to the strengthening of personal relationships and friendship among the soldiers of both armies.

Further progress was made at this exercise in matters of automating troop control processes. Four computer centers, four stationary computers, and one portable computer were allotted for the exercise. Automation groups were set up within each staff. To support the work of the staffs, 55 programs for solving problems were prepared. During the exercise, 450 problems were solved in support of the participating staffs, including the directing staff, of which 308 were done during the planning of operations and 142 during the course of an operation. Of the total number of problems solved, the greatest number were operational-tactical -- 38 percent, calculations regarding rear services, transport, and technical support -- 38 percent, on the employment and distribution of missile/nuclear strikes and other fire means -- 16 percent, and on other matters -- 8 percent.

The new GOLIASH system of integrating programs for the solution of problems, which was discussed in detail in an article by Engineer General-Leytenant B. Kuchera, was used to perform calculations in the exercise.

Unlike past procedures, all problems forming part of the GOLIASH complex are based on a single computer information field, which eliminates the need for repeated inputting of additional information to solve each individual problem of the complex. This leads to a reduction in the volume of preparatory tasks and in the time needed to perform the calculations. During the control process, the single information field is constantly supplemented and updated with data coming in from the various directorates.
(departments) of the staffs of the front and armies.

It should also be mentioned that the staffs were provided with staff vehicles of the same type, having communications means and standard equipment for operating in the field. Up to 80 to 85 percent of staff personnel are located in these vehicles when operating in a fixed location. During the exercise, all control posts were relocated several times with an average nighttime speed of 25 to 30 kilometers per hour. Relocation was implemented in three groups, according to previously worked out plans: a reconnaissance group, the main group, and a support group. Full deployment of an army command post comprising 50 motor vehicles required up to three to four hours. The command posts of the armies were relocated over a distance of 40 to 60 kilometers, the front command post up to 120 kilometers.

Summing up the results of the exercise, its director declared that the assigned objectives had been fully achieved.

A Combined-Arms Tactical Exercise in the Polish Armed Forces

In 1973 the Polish Armed Forces conducted a two-sided, combined-arms tactical exercise with two reinforced tank divisions. The exercise was directed by the commander of troops of the Silesian Military District.

The exercise began by bringing the troops up to a higher state of combat readiness and mobilizing certain units and subunits. The concentration of troops and staffs in the departure areas was carried out mainly by railroad. Both divisions were committed to battle from second echelons of armies.

The "South" tank division was committed to battle in order to break through the enemy defense, make a forced crossing of a water obstacle, and develop an offensive into the depth. The division was then used to work out problems regarding the organization and conduct of defensive battle on an intermediate line using nuclear weapons.

The "North" tank division began carrying out its task by launching one tactical missile and with field firing by the artillery and by tank and motorized rifle subunits. Its actions were supported by fighter-bomber aviation, with actual bombing and field firing.
A forced crossing of a water obstacle made from the march over a wide front (up to 28 kilometers) was instructive. The divisional battle formation comprised two echelons: in the first -- two tank regiments and one mechanized regiment, in the second -- a tank regiment. The mechanized regiment, acting as a forward detachment, forced the river by a combined method: one motorized rifle battalion from the second echelon of the regiment was landed by helicopter 30 minutes before the forced crossing began in order to capture a bridgehead; two motorized rifle battalions made a forced crossing of the river by amphibious means; one tank company of the tank battalion was put across by tracked self-propelled ferry, another forded the river, and a third crossed with the remaining subunits of the regiment over a bridge which they had constructed.

The North tank division spent 12 hours preparing a breakthrough of South's defensive perimeter. During the breakthrough, a tank regiment was committed to battle under nighttime conditions, with field firing by tank subunits.

Troop combat operations were supported by fighter-bomber aviation at each basic stage of the exercise. This enabled division commanders and their staffs to obtain practice in organizing coordination.

The officers directing the exercise applied, for the first time, the method of not using umpires in an exercise with troops and staffs, having instead permanent representatives (responsible generals and officers from the district staff) in subordinate staffs and in certain units on the main axis.

It was established during the exercise that this method has a number of important advantages:

-- the basic principle of combat training is upheld -- each commanding officer directly trains his subordinates;
-- a large group of generals and officers previously assigned to an exercise as umpires were now able to perform actual duties in their units, large units, and staffs;
-- by bypassing the umpires, the director of the exercise and his staff could deal with a situation more rapidly and efficiently.

Another feature was that tank and mechanized regiments, in view of the limited capacity of the training grounds and the need to cut down vehicle mileage, participated at specific stages, joining the exercise at three training grounds successively, in order to conduct tactical exercises with field firing and to work out other basic training tasks.
In addition to the divisions with their reinforcement means, military and civilian railroad agencies of six military districts were activated during the exercise. This made it possible to test the practicality of the planning and of transporting troops by lateral rail lines in the western part of the Polish People's Republic.

The directing officers devoted considerable attention to questions of troop control and organization of coordination, to the rapid working out of a decision by commanders and assignment of combat tasks to troops, and to speed in deploying control posts. Combat operations were, as a rule, organized in the field.

Roadstead Assembly of Ships and an Exercise of Allied Navies in the Black Sea

In 1973, according to plan, the Commander of the Navy of the People's Republic of Bulgaria directed a roadstead assembly and training exercise in the Black Sea for ships from the navies of the People's Republic of Bulgaria and the Socialist Republic of Romania, and from the Red Banner Black Sea Fleet of the USSR.

Participating in the assembly and exercise were operations groups from the staffs of the allied navies; commanders and staffs from large units of strike, antisubmarine, and minesweeper forces; 41 combat ships; 15 auxiliary ships; six antisubmarine helicopters; and ships and means from the Hydrographic Service of the Navy of the People's Republic of Bulgaria.

Roadstead assembly of ships as a method of developing tactical coordination of single-arm or multiple-arm forces has been practiced before. Its distinctive feature is that ship groups from allied navies assemble in one area in the roadstead of the operational zone of one of the navies for a relatively extended period of time. Coordination among them is worked out while fulfilling various tasks both offensive and defensive in nature.

In order to achieve unity of views on questions of tactical coordination of forces of allied navies when carrying out combined tasks, appropriate exercises are carried out at an assembly. In addition, after each sea exercise in carrying out combined tasks, the commanders of ship groups and ships meet together and exchange opinions on questions of coordination and ways to improve it.
In comparison with other methods of tactical training, roadstead assembly provides more diverse ways of working out coordination of allied naval forces and of preparing them for combined operations.

Among the main objectives of the roadstead assembly that was conducted, we should include working out the tactical coordination of allied naval forces while they are carrying out combined tasks (search and destruction of submarines, mounting of strikes by missile and torpedo boats against enemy ship groupings, and minesweeping), working out a unity of views on questions of organizing the defense and protection of ship large units at anchor and in transit at sea, as well as organizing roadstead services, and increasing fraternal friendship among the sailors of the allied navies.

Preliminary coordination among staffs regarding the planning documents for the roadstead assembly, and the mastering of these documents beforehand by the commanders of large units, tactical groups, and ships, made it possible to begin planning the assigned tasks immediately and purposefully upon arrival of the ships at the roadstead.

In order to achieve a single understanding on questions of organizing the defense and protection of ships of the three allied navies when they are anchored together in an unprotected roadstead, and in order to work out coordination during the combined repulse of an enemy, a preliminary group exercise was conducted, and then a series of individual exercises, at which attention was directed toward the organization of communications, observation, warning, identification and repulse of an enemy air or sea attack.

Practical testing of all aspects of organizing the tactical coordination of antisubmarine strike forces and minesweeping forces was conducted as part of a combined cruise, including fulfilment of tasks covered in the combat training courses.

Coordination of strike groups of missile and torpedo boats was worked out as these groups delivered combined simultaneous and successive strikes designed to destroy a powerful enemy ship grouping. In this action, the missile and torpedo boats operated as a coalition strike grouping, controlled by the commander of a large unit of one of the allied navies.

The experience of the roadstead assembly confirmed once again the fact that missile-torpedo groups achieve their greatest effectiveness when delivering combined simultaneous strikes, since favorable conditions are
created for overcoming the anti-missile defenses of enemy ship groupings, and it is ensured that the missiles from all boats strike their targets simultaneously.

The assembly participants expressed the opinion that greater attention should be devoted to the reliability of detection of the nature of targets within enemy ship groupings and to the issuing of target designation data to the missile-torpedo groups of the allied navies prior to the delivery of a simultaneous combined strike.

Successive combined strikes were also worked out. In the process, coordination among the strike groups was effected only through transmittal of information on the enemy and on the results of combat contact with him. In this case, the sequence for the delivery of strikes and the time interval between them were coordinated in advance among the commanders of the strike groups, and each missile-torpedo group was controlled by its national command. It may be assumed that the delivery of such successive strikes by allied naval forces against an enemy ship grouping is permissible in the event that the conditions of the developing situation make it impossible to organize a simultaneous combined strike or when an enemy ship grouping has weak anti-missile defenses. In delivering successive combined strikes, reconnaissance and the transmittal of information on the results of previous strikes, as well as the delivery time for each successive strike, assume particular importance.

Experience shows that the time interval between regular successive strikes must be established not arbitrarily, but on the basis of the specific conditions of the situation, the enemy's capabilities to restore his defenses and the capabilities of the forces and means assigned to target detection, and the determination of the results of previous strikes.

The organization of the coordination of antisubmarine forces of allied navies was worked out during a combined operation with a submarine at sea. Special attention was devoted to coordination among ship hunter-killer groups during a combined search for the submarine and also during transfer of contact with the submarine from the hunter-killer group of one navy to the hunter-killer group of another navy.

Control of coalition antisubmarine forces during a combined search for a submarine in one area was exercised by the commander of the antisubmarine large unit of one of the allied navies. This made it possible to work out the search according to a single plan. During search and pursuit of the submarine, complete coordination was achieved among the commanders of the
antisubmarine search groups with regard to all questions of this type of combined activity.

The transfer of contact with the submarine at the roadstead assembly was worked out between the ship hunter-killer groups of the Navy of the People's Republic of Bulgaria and the Navy of the Socialist Republic of Romania. Each hunter-killer group was controlled by its national command. The experience of the combined measures taken, and the measures taken in conformity with the plans of the national commands, shows that the submarine may be lost while contact is being transferred. Contact must of course be restored as quickly as possible, utilizing all antisubmarine forces in the area for a combined search. Participants in the assembly expressed the opinion that it would be advisable in such instances to determine in advance which of the commanders is to organize the combined search in a given situation.

Considerable attention was devoted during the roadstead assembly to working out the coordination of minesweeping forces, which operated under various different conditions: by day, by night, in poor visibility, and in stormy weather. The radio-navigation system for minesweeper support functioned reliably throughout the entire roadstead assembly and provided the necessary accuracy in minesweeping.

The assembly demonstrated the advisability of further working out of the coordination of minesweeping groups from allied navies for more adverse conditions, as when, for example, some minesweepers are put out of action during a combined minesweeping operation, either from mine explosions or from action against them by other enemy forces.

At the conclusion of the roadstead assembly, an exercise was conducted to work out the tactical coordination of ship forces of the allied navies during combined basing, during support of the deployment of strike forces in the zone of combat operations, and during the delivery of combined strikes against enemy ship groupings.

The exercise was conducted in two stages: in the first -- the commanders of the coordinating large units made their decisions, and in the second -- the forces conducted combat operations to carry out the assigned tasks.

The roadstead assembly and exercise which were carried out contributed to the further improvement of the practical skills of the commanders of large units, groups, and ships, to improving the methods of organizing
coordination among them, and to a strengthening of friendship among the sailors of the three allied navies.

A Combined Exercise of Allied Navies in the Baltic Sea

An exercise was conducted in April 1973 under the direction of the commander of the People's Navy of the German Democratic Republic. Assigned to participate in it were command posts and communications centers of the navy and its main large units; units and subunits of the operational rear services; observation ships and shore technical observation means from a naval border brigade; tactical reconnaissance forces and means of the People's Navy of the German Democratic Republic and also operations groups from the staffs of the navies, and large units, naval vessels, and transport ships from the Navy of the Polish People's Republic and the Twice Red Banner Baltic Fleet of the USSR. Also participating were units and subunits from the air defense forces of the German Democratic Republic, from the naval aviation of the Polish Armed Forces, and from the aviation of the Soviet Army.

The main objectives of this exercise were to provide the commanders and staffs of large units of the allied navies with practice in planning combat duty, in carrying it out during a period of increased combat readiness, in improving the organization of coordination of allied naval forces during combined tracking of enemy ship groupings and their destruction at the beginning of combat operations, as well as in organizing the control and comprehensive support of the force. In addition it was designed to provide ship commanders with practice in conducting reconnaissance, in tracking enemy ships and submarines, in transferring contact, and in guiding the main forces and delivering the initial independent strikes against the enemy at the beginning of combat operations.

The exercise took place in adverse weather conditions.

During the preparation and conduct of the exercise, the increased activity in the Baltic Sea on the part of naval forces of the NATO countries was taken into account. For example, whereas combat ships of the navies of this bloc were observed to make 360 approaches to the operating zone of the People's Navy of the German Democratic Republic in 1970, the number of approaches reached 620 in 1972.
The main emphasis at the exercise was placed on problems of combat duty, which, as is known, is one of the important factors in maintaining a high level of combat readiness in allied navies and which, if properly organized, ensures the timely detection and tracking of surface ships and submarines of the probable enemy.

In the training of combat duty forces, problems were worked out concerning search, tracking, pursuit and destruction of enemy ship forces in strait zones and their approaches. The enemy groupings were represented by torpedo boats, amphibious and escort vessels, and aircraft from the People's Navy of the German Democratic Republic as well as a submarine from the Navy of the Polish People's Republic. The presence in the area of the exercise of a large quantity of NATO naval forces (28 combat ships and 52 aircraft sorties) contributed to the creation of a realistic situation in conducting the exercise, and emphasized the need for efficient organization of combat duty.

During the exercise, in accordance with the concept and plan, as the situation built up combat duty forces of the People's Navy of the German Democratic Republic completed their deployment in order to reinforce the patrols. Combat pursuit was organized for detected enemy groupings, which were represented both by friendly ships and by naval forces of the Federal Republic of Germany and Denmark which were actually operating in the area. At the same time, allied naval groupings were deployed in order to build up the combat duty forces to a strength that would ensure the destruction of the enemy at the approaches to the areas and objectives to be defended by the allied navies.

In order to reinforce the combat duty groupings of the People's Navy of the German Democratic Republic, support forces were allocated from the Navy of the Polish People's Republic and the Twice Red Banner Baltic Fleet of the USSR, which participated in the search for and tracking of enemy groupings.

At the beginning of combat operations, the combat duty forces of the People's Navy of the German Democratic Republic, with supporting forces from the allied navies and in coordination with aviation from the National People's Army of the German Democratic Republic and the Soviet Army, delivered combined strikes against enemy naval groupings. At the same time, multiple-arm forces from the allied navies worked out the delivery of strikes in relation to the enemy's course, which significantly facilitated coordination among aircraft and missile and torpedo boats of the People's Navy of the German Democratic Republic, the Navy of the Polish People's
Republic, and the Twice Red Banner Baltic Fleet.

During the delivery of the initial combined strikes, the combat duty forces and supporting allied naval forces were controlled from an onshore command post by means of ultra-shortwave radio-relay sets, and in conformity with existing coordination documents. Extensive use was made here of standardized combat documents which had been worked out in the navies of the Warsaw Pact member states in 1971 and 1972. Their use shortened the transmittal time for combat orders and reports by a factor of two to three, eliminated to a significant degree the difficulties arising from language differences, reduced correspondence among control organs, and increased the security and combat stability of control.

The exercise confirmed the need for further improvement of the organization and methods of operational and tactical camouflage, of the conduct of reconnaissance, and of measures of radioelectronic warfare to ensure the fullest possible detection of the enemy's plan of action and intentions, and to impede enemy discovery of the strength, battle dispositions, and main operational axes of our forces.

The tasks of rear services support to combat duty forces at temporary bases and directly at sea were worked out, with missiles, torpedoes, mines, POL, and provisions actually issued to the ships. This confirmed once again the advisability of organizing floating complexes for the restoration of combat effectiveness of naval forces at sea and in areas of dispersal.

The exercise served to further improve the naval and combat training of the crews of ships and aircraft and made it possible to draw valuable conclusions for further improving the methods of performing combat duty by allied navies in the Baltic Sea.