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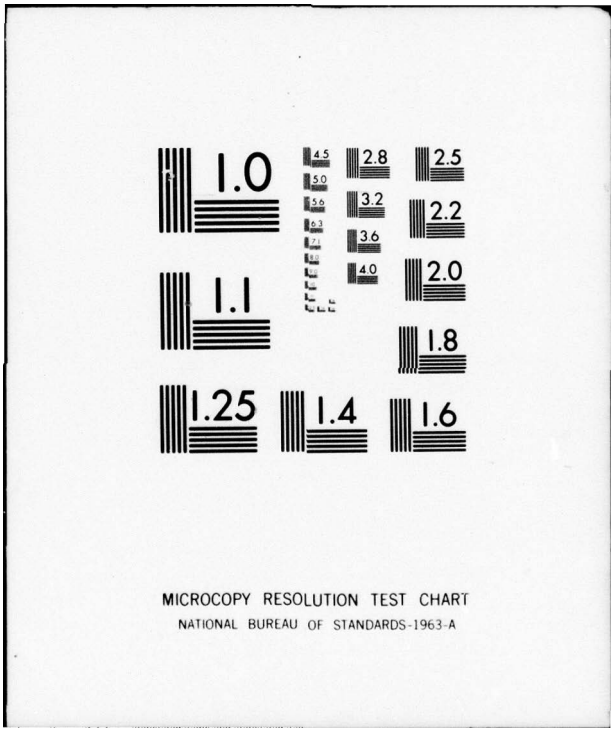
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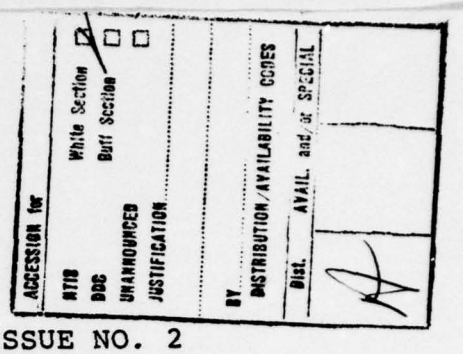

MORSKOY SBORNIK, SUPPLEMENTARY ISSUE NO. 2

(Articles from the year 1972)

JOURNAL OF THE NAVY OF THE SOVIET UNION

Table of Contents

MORSKOY SBORNIK, No. 1, 1972, pp. 31-34.

DISCIPLINE AND MORALE IN THE MILITARY COLLECTIVE

by Candidate of Philosophical Sciences
Captain 1st Rank A. Skryl'nik

Crew Morale /31

In military service one often sees ships of one type standing in a row, outwardly identical in all respects, like twins. And even the men who serve on them are pretty much alike--as a rule they are the same age, and graduates of the same schools, naval schools. But spend a day or two on the ships and you will notice, or more accurately - you will catch - something "unique" in the atmosphere of each crew. And generally, wherever the established procedure is more rigid, where the rhythm of shipboard life is clear and strict, there is more mutual confidence and respect in the relationships between superiors and subordinates, the old and the young, and those of equal rank, this is where it is easier, as they say, to live and breathe.

Take the cruiser MIKHAIL KUTUZOV, for example. For several years its crew has been top-notch. Its solid collective, which includes young seamen, maintains traditions, disciplines the men and develops that spirit of comradely trust which miraculously fuses the young and the experienced cadres.

Discipline exerts an enormous influence on the unique microclimate which develops in a military collective. The men do not simply carry out the requirements of regulations and orders during their time in service; they also judge their own affairs and actions, as well as those of their comrades. They take pride in achievements, experience failures. A general opinion of one event or another is formed from a variety of viewpoints. That is the primary foundation which underlies moral judgments, the cri-

teria of actions and conduct (just, honest, conscientious, etc.). This general mood is usually called morale.

In each of our military collectives, there is every chance to develop the kind of situation which would promote the service and education of the men. This is inherent in the very nature of the Soviet Army and Navy, in the nature of a Socialist-social structure, and in the ideological and organizational activity of the Communist Party. As L. I. Brezhnev noted at the XXIV Congress of the Communist Party of the Soviet Union, the Central Committee of the Party adopted measures to create a moral atmosphere in our society which would facilitate consolidation in all aspects of public life, in work as well as in the habit of a respectful and thoughtful attitude toward mankind, honesty, confidence in oneself and others, trust combined with strict responsibility, and a spirit of real comradeship.

Morale in a military collective pervades the whole environment in which unrated seamen, petty officers and officers live and work. It would be an oversimplification to restrict the life of the collective to a certain sphere in relationships between men. It is hardly possible to consider it correct when in /32
some official documents which analyze the state of discipline and certificates frequently only their off-the-job activities when they deal with the moral aspect of men's behavior are considered--and when they discuss officers, only their family relations. The indisputable notion that it is necessary to look at a man not only at work but also at leisure is sometimes interpreted as if morality begins where service, governed by regulations, leaves off.

The principles of Communist morality, which are common to all Soviet citizens, have their own manifestations in the behavior of fighting men. Let us take the regulation requirement to "be honest". For a fighting man it has a deeper meaning than the ordinary notion of honesty. The measure of honesty for a Soviet soldier is his conscientious attitude toward defending the Motherland, striving to devote all of

his resources and knowledge to carrying out his duty, his constant readiness for gallantry. Military service is the only form of activity in which a Soviet citizen pledges - with his life - faithful fulfillment of the requirements.

The Educational Consequences of Command Decisions

The atmosphere in a military collective is determined primarily by the political situation in the country, and the ideological work of Commanding Officers, political organs and the Party and Komsomol organizations. At the same time, it also depends a great deal on the progress of training, success in carrying out combat training tasks, on the confidence and thoughtfulness of commanders, and their ability to inspire men to have confidence in their resources.

The orders and requirements of a Commanding Officer must be carried out, of course, regardless of whether he possesses the skill to demand or not. But an officer capable of foreseeing the effects of command decisions and orders, and taking into account their influence on the morale of the men, gets more accomplished. As was noted in the Summary Report of the Central Committee to the XXIV Congress of the Communist Party of the Soviet Union, a leader may not rely solely upon the force of an order. It is important to constantly consider the educational impact of all decisions made.

Everything is in view in a collective. No one's deeds and actions go unnoticed. They elicit approval or censure, internal support or opposition. A collective reacts all the more keenly to the actions of the Commanding Officer. Regulations state: "An order must be carried out without question, precisely and on time." However, this does not abrogate the moral right of a military man to "internally" judge for himself an order he has received. A thoroughly-understood order of a Commanding Officer, approved moreover by a subordinate, gains, as it were, additional force. It elicits from the men a surge of strength and energy, an effort to carry it out in the best possible way. The art of command also

consists in having the words and commands of the Commanding Officer elicit a response in the consciousness of subordinates and being perceived as purposeful and just. In such cases the exactingness of the Commanding Officer becomes an effective means of supporting a highly businesslike approach in the collective.

The art of "controlling" morale acquires special significance in the context of a crew's extended absence from its home port, on a long cruise. By and large, a man becomes more receptive to a Commanding Officer's exactingness, to a manifestation of consideration, to any lack of organization, which naturally has an impact on the whole atmosphere in the collective.

At one time I had occasion to be on the Guards large ASW ship SOOBRAZITEL'NYY. I was immediately struck by the self-discipline of the sailors, the mutual understanding and strict procedure everywhere. Although the ship had already been on cruise for a long time, it didn't seem that the men were weary. It was possible to hear both songs and jokes, to notice those unseen threads which bind the seamen together and unite the collective. The Commanding Officer, his Political Officer and the Party and Komsomol organizations rendered a great service in this regard. On this ship every success of the sailors, as well as the smallest breach of order was noted. How the men were transformed in hearing a good word about their work! The Commanding Officer's calm, steady exactingness was /33
organically linked with a concern for the men, for their relaxation, so that every member of the crew might feel the support of the collective.

A Commanding Officer's exactingness emerges as an educating factor if it is exercised consistently and persistently, independent of any attendant circumstances. All-hands evolutions in placing demands on personnel had a pernicious effect on the work and mood of the men.

Any insincerity or dishonesty is sharply perceived in the collective. Life itself punishes those officers who, heedless of the consequences of their actions, try

to embroider the situation with discipline. Such a situation jeopardizes the training of the men.

To deviate from the maxim that "not a single deed of a subordinate is without effect" corrupts the atmosphere of a collective, elicits idle talk and may entail complacency. Something like that happened for example, in one hydrometeorological subunit. A commandant of a garrison arrested Senior Seaman Kudrinsk'y. Another time he had to relieve Senior Seaman Ofitseroy of his duty. In order to preserve their reputation as an "advanced collective," they began concealing violators. The consequences were not long in coming. Chief Petty Officer Gur'yanov went AWOL from the subunit. The next day, a patrol arrested Seaman Bal'zamov. But they were as silent in the subunit about these infractions as they were before. Is it worth analyzing in detail the consequences of such a position for a subunit head?

An objective appraisal of the level of combat training and the state of discipline is of no small importance in the development of a healthy collective. An error in appraising the work or behavior of the men is equivalent to an act of injustice, and it usually leads to indifference in a collective. Thus in the commission's report, all indices of combat readiness and discipline in the unit having been carefully studied, and the order and self-discipline in the subunits were noted. Then came gunnery. And in this culminating moment in the exercises, one ship didn't carry out its fire task. The men lost heart. This could not help but affect the fulfillment of other tasks. The head of the inspection team, after investigating the matter and listening to the specialist, concluded that discipline in the squadron was satisfactory, and that what happened occurred through no fault of the personnel. In the unit and subunits, all the talk was about how justice had been done.

In the realm of human relations, humaneness stands out as the criterion of moral purity. "In the Soviet Army," writes Marshal of the Soviet Union A. A. Grechko, "exactingness and obedience, based on the codes governing

military duty, are an expression of humanism and mutual respect between superiors and subordinates."

Servicemen long remember benevolent superiors who can not only impart knowledge and skills to others, but also inculcate high morale. Visit any ship or unit and you will certainly hear warm words about many officers who have completed their service and are now somewhere else.

The majority of Soviet officers, by their personal example, maintain procedures prescribed by regulations and a healthy situation in the collective. Individual officers who themselves violate the requirements of discipline and moral standards look even stranger in the role of "tutors" of subordinates. For example, officer V. Tarnavskiy had abused alcohol for a long time and his superior tried to protect the man's "authority." It was no coincidence that in this subunit the number of infractions of discipline was not declining.

Our society sets higher standards of personal example for educators, including officers. The Party and Government have entrusted them with leadership of the collectives. According to how they observe regulations and moral standards, their subordinates will to a large degree determine the propriety of their orders and instructions. The personal behavior of an officer in every specific life situation is perceived and experienced by those being trained, and is accompanied by positive or negative moral consequences.

The Effect of Incentives and Punishment /34

The educational value of any disciplinary act is directly dependent on whether it is perceived by the men as justified. Frequent incentives for an ordinary action sometimes have a negative effect. They may implant in a serviceman's heart, the seed of arrogance in his relationship to his comrades, and foster the development of so-called "moral self-seeking" in the collective, when they begin to think of incentives as something to be expected. For example, a study of

the disciplinary regimen in a group of ships showed that some seamen consider short-term leave as something they are entitled to. One of the reasons for such an attitude is the excessive generosity of Commanding Officers.

Unwarranted use of incentives may cause harm. It is well known that servicemen are praised primarily for zeal and outstanding performance in combat and training tasks. Unfortunately, without distinction in combat training, they are unnecessarily praised for sports achievement and participation in amateur talent activities, where ordinarily at best they show only aptitudes, tendencies and talent. There has to be a sense of proportion, otherwise undeserved incentives elicit idle talk in the collective and lose their value in their opinion.

In offering incentive to a subordinate, a Commanding Officer defines, as it were, his position within the collective, approves his behavior and induces others to conduct themselves likewise. At the same time, he is showing the man that his efforts are noticed and the results are satisfactory.

The role of incentives as a stimulus for self-discipline and moral behavior depends on the correct formulation of those characteristics on which a serviceman is judged. Their effect is reduced if what deserves to a positive rating is not considered the main thing. Still worse is when they praise deeds which are typical of every properly functioning serviceman.

Petty Officer 1st Class Petrov, for example, was in his time a disciplined, exemplary seaman. But even after he made petty officer, there continued to appear in his service record, as before, incentives "for personal discipline," "for outstanding duty in the galley," etc. But his main duty-training and educating subordinates-was never evaluated. The incentives did not encourage Petrov to an increasedresponsibility in his major area of activity. Although he remained personally exemplary, Petrov did not become a good petty officer, although

he had all the makings of one.

When we speak of Commanding Officer's disciplinary regimen, we especially want to emphasize the rightfulness of the tenet "he" instills justice." Neither incentives nor punishment alone influences a man's inner world or affects the collective, but how morally well-founded the disciplinary measures are.

Even punishment has educational effect only when it conforms strictly to the requirements of military regulations. Any "timidity" here destroys their effectiveness. For example, take the service record of Senior Seaman Voloshin. One of the entries says that he was punished for arguing with a petty officer. The amount of punishment - three extra duties - is fully justified. But the punishment was suspended after five days. The sailor did nothing for which it would have been possible to suspend the punishment. As a consequence of such a "practice", the opinion may develop: "It's all the same, you know; in a week they will suspend it."

In offering incentives to or punishing subordinates, a Soviet Commanding Officer contemplates the effect these disciplinary measures will have on morale of the men. His disciplinary policy is based on the stipulations of laws governing military service, regulations, and - if the "need" for a certain decision, the practicality of a certain measure has been determined - a state approach to the matter, conscience. Only that kind of approach to disciplinary policy makes it a powerful means of unifying a collective and strengthening sound morale in a unit or subunit.

MORSKOY SBORNIK, No. 1, 1972, pp. 35-38

SPECIAL TRAINING AND ITS ORGANIZATION

by Captain 1st Rank K. Shishkin
and
Captain 1st Rank V. Lebed'ke

In special training, the organizing principle is /35
the determination of the composition of the groups, the designation of their leaders, and also development of the study topics for each of them.

On ships it is the custom to form groups according to years of service. This is simple and such a disposition of personnel, having become traditional, is justified. However, the mastery of a specialty proceeds faster if, in forming groups, the level of knowledge and ability of the trainees are taken into account. Here and there they are doing this. If a seaman or petty officer in his second year of service assimilates material easily and well, and has become a class specialist, he is included in a third-year group.

In order to provide help to the leaders of the groups in the study of methodology and training organization, methodology meetings are conducted everywhere at the beginning of the training year. At the meetings, considerable time is alloted to demonstration classes and training sessions. Discussions of the basic principles of pedagogy and psychology are also useful. The methodological training of the group leaders and their assistants must proceed continuously throughout the course of the entire training year. Along with the instructions, regular critiques of the exercises and training sessions are useful. We hold them, as a rule, not less than once every two months, usually before the completion of a certain segment of a combat training course.

The leaders derive great benefit from the organizational and methodological directives, by specialty, developed

in the units, the sample plans for conducting classes and training sessions, the methods for evaluating the readiness of the trainees, etc.

Evaluations of the specialty exercises, performed by staff and ship officers, are elicited to facilitate raising the level of methodological mastery of the group leaders. It is true that, at present, they more often check the plan of the day, the uniform, the presence of synopses and visual aids, attendance, etc., and much more seldom the quality of the exercises, the level of preparation of the leader himself and his assistant, and their work with those who are falling behind.

It is obvious that in checking the group leader's preparation for exercises, one must not limit oneself to a mere approval of the exercise plan or a cursory examination of the synopsis. It is important to ascertain how he plans to conduct the exercise, what main aspects of the topic he has selected and what visual aids he plans to use.

Determination of the subject matter of the exercise and training sessions and the sequence of its study in the training process plays a special role in the organization of special training. In all instances an /36
overall study of the aspects is desirable. If, for example, training of any of the groups (officers, petty officers and seamen) is being conducted on a certain topic of the course, then both the exercises and training sessions conducted under the leadership of flag specialists and their assistants must coincide with the topic being studied. This ensures a thorough study and firm consolidation of the necessary skills.

In developing the list of topics for exercises and training sessions, and in planning training, it is desirable to give greater consideration to the type of activity aboard the ships and the level of prior training of personnel. Here and there special training is planned separately for ships which are completing the entire course, and for ships which, having finished the course, are perfecting combat training tasks on long

cruises or undergoing repair.

Such a planning procedure permits the more complete utilization of available resources, and precise determination of the nature of repair training.

The results of training by specialty depend largely on a properly compiled plan of the day. Good experience in the efficient disposition of time has been accumulated in the unit where Captain 2nd Rank G. Lebedev is a staff officer.

There, for example, on Tuesday mornings, the officers conduct training for petty officers and unrated seamen. On Tuesday afternoons and Friday mornings, the petty officers work with the unrated seamen. On Friday afternoons, the officers and petty officers--the group leaders-- prepare themselves for the specialty exercises planned for the following week. The remaining personnel work independently during this time, consolidating their knowledge of the old material, or work on individual tasks of the subunit commanders.

Independent training by individual tasks and plans is successfully applied on many ships and in units of the Navy. It permits one to take more fully into account the level and ability of each man, to conduct more specific training on long cruises and in situations in which it is impossible to gather everyone together. The method is especially widely used in the training of petty officers who have no subordinates, and also for petty officers and seamen when their ship is being overhauled. /37

However, independent training produces the required result if it is planned, materially supported, and is under the firm control of the leaders. By planned organization of independent training of personnel we mean: determination of the subject matter of the excise and its purpose (reinforcement of past material, study of new material, improvement of standard indices, efficiency work, etc.); indication of the place and time of independent training; determination of procedure for keeping records on results.

Petty officers and unrated seamen on independent training are usually given an assignment.

The following form may be suggested.

Assignment Plan

(rank, name)

For the period from _____ to _____ 197___.

Time of Study	Topic	Purpose	Who checks, and how	Results; Signature of Checker
2/12	On board apparatus (what, how, which texts to use)	Preparation for exercise with unrated seamen	The group commander, discussion	
3/9	Test starting apparatus	Study of new material	Department head; Check test	
. . .	. . . . .			
	Group commander_____ (signature)			

The assignment plan is recorded in the notebook. The topics may be indicated by their numbers instead of their full names.

Precruise meetings occupy a particular place in special training. Their purpose is an exchange of experience in the operation of weapons and equipment under the conditions of long cruises. It is useful to conduct precruise meetings with groups of specialists operating identical equipment and standing watch at the same battle stations. It is useful to have petty officers and officers who have just returned from cruises take part in such meetings. In the course of the meetings, assignments are also usually drawn up for independent training of the seamen and petty officers who are going to sea.

In organizaing training aboard ship, we advise that special attention be given to the mastery by personnel of their responsibilities, the ability to use weapons and equipment when damaged or malfunctioning, and also while operating with reduced crews. Many group leaders precede the exercises with an analysis of the failures in the performance of equipment and an explanation of their causes. It is also useful to reinforce the exercises with special training sessions on the prevention of breakdowns and in the actions of trainees in training emergency situations.

Everywhere a search is going on for new ways to improve the quality of special training and to activate the instruction. They have begun to regularly conduct competitions for the title of best specialist, the successor to the best specialists of the war years, and the ship's best young specialist; "Days of the Specialist" are being organized. In some units, demonstration and model battle stations and crews have been set up; universities and technical schools are operating, etc. The time has come to carefully study their experience and to extend to all that is useful and really new the legal right to existence; by doing this, the combat training organizations, directorates, departments and branches of the Navy will provide help to the unit commands. It is worth thinking of the benefits to all /38

who, sparing no time and effort, increase their mastery. Obviously, the people who have finished technical schools should be given special certificates, and they should be given preference in training assignments, in being awarded the title of Master of Military Affairs, etc.

Photographs - p. 35, caption: Decontamination of a submarine in progress.

p. 36, caption: A first class specialist and senior radio operator, Warrant Officer V. Fominykh, and Senior Seaman Yu. Romanov in specialty training.

p.38, caption: Guards Senior Lieutenant Yu. Furlet and Guards Lieutenant V. Komissarov are commanders of outstanding batteries. They both have completed the Higher Naval School. Yu. Furlet has already carried out several missile firings and all of them received high ratings. V. Komissarov recently completed his first firing. Under the command of the young officer, the battery successfully fulfilled the assigned task.

MORSKOY SBORNIK, No. 1, 1972, pp. 45-48.

IMPROVE FLIGHT LEADERSHIP

By Lietuenant General of Aviation A. Pavlovskiy

Constant attention is being given to problems involved in the improvement of flight safety in naval aviation. Flight controllers make a considerable contribution toward their solution. In this connection, we will speak our mind concerning certain proposals of officers on further improvement in the organization of flying duties, the system for training controllers, and control over their training; we will share our experience. /45

Flight control is a complex process, directed toward the precise and uninterrupted control of aircraft on the ground and in the air, the successful accomplishment of missions by crews, and ensuring of their safety. As many of the participants in the discussion noted, only the man who has an outstanding knowledge of his profession, skillfully uses electronic equipment, and knows how to help men in distress can cope with this.

A malfunction occurred aboard the aircraft during a night flight. The crew members found themselves in a difficult situation. But the controller, a Specialist 1st Class, a man with great experience, immediately came to the rescue. Continually observing the aircraft on the radar screen, he ordered another crew to also watch the aircraft and report its activities to the ground. Then, using backup communications systems, the controller helped the flyers reach the airfield and make the landing approach. The crew landed safely.

The incident cited is quite characteristic. It came back to me when I was again rereading the articles about flight control published in this periodical.*

*Morskoy Sbornik,1971, Nos. 2,3,4,6,10, 12.

Lieutenant Colonel L. Ilyushin, Engineer-Major A. Kontiyevskiy, Colonels A. Makarov and P. Serapionov, and others demonstrated convincingly that today it is possible and necessary to fly while avoiding the preconditions for accidents. The officers see this occurring through further improvement in the control of crews and improvement in their direction.

Colonel V. Nedadayev examined the basic aspects entailed in the concept of "flight organization." The author rightfully notes that the controller must have an outstanding knowledge and know how to apply it in regulating the work of his assistants (the duty navigators, plotters and radio operators), to be able to use electronic equipment.

Actually, one of the decisive conditions for successful conduct of a flight shift is proper control of crews. As experience shows, sometimes the causes of potentially dangerous situations lie precisely in the poor training of individual officers, in their inability to quickly and unerringly evaluate the situation, to make the right decision and execute it.

Experience indicates that the number of potentially dangerous situations can be sharply curtailed if the controller will strictly observe the requirements of existing statutes, control the work of the crews of the command points, of the landing systems and the control group, more carefully analyze the air and meteorological situation, promptly inform the pilots when it changes, and persistently increase his mastery. And Colonel P. Serapionov emphasizes that the art of controlling flights does not come at once; for this one must work diligently and hard. /46

In naval aviation, much has been done in the training of flight controllers. For example, classrooms have been created for the training of control groups which exactly reproduce the space of an air traffic control center. The classes are electrified and radio-equipped; they have the necessary diagrams and plotting

boards. But a good training base is only one side of the question. It is important that it be used precisely for the training of control groups.

Colonel V. Savel'yev writes that at times the training of the controller himself for operations under special circumstances is still not sufficiently complete and precisely organized. The training of the control group often consists in the training of only individual personnel, while questions concerning the interaction of all members of the group remain in the dark.

In order to avoid the aforementioned deficiences, methodology meetings of the controllers are conducted, in which the officers increase their knowledge of statutes regulating service, and receive training in the control of crews in classes and at the air traffic control center. The person conducting the class poses tactical problems to the trainees (usually concerning special cases), which helps them to develop particular skills. The pilots are given full initiative in evaluating the situation aloft and in making the decision. Thus they learn independence and a creative approach to the solving of problems which can arise in actuality.

As modern technology is introduced into the Fleets and as the limits of speed, altitude, range and flight endurance increase, the crews' missions become more complex. And it seems to us that flight control must be improved above all in the direction of continuity, reliability and flexibility.

In the articles by V. Nedadayev, P. Pshenichnikov, and others, there are valuable suggestions and recommendations for further improvement in the training of personnel involved in the control of crews. In our opinion, shortcomings in this area will continue to exist until we have a single, orderly system of organization of training and monitoring the control group. With this goal, certain work has been done in naval aviation. Ways of improving the mastery of pilots have been repeatedly discussed at flight-methodology meetings

of command personnel, at conferences and at sessions of methodology councils.

The procedure for training and certification of officers for flight control is set forth in several instructions, with the result that, at times, commanders solve the very same problems differently. It was necessary to make certain provisions of the instructions more detailed, to define the scope, time limits and number of measures taken in the training and certification.

In accordance with a proposal by officers of the aviation staff, and with their direct participation, a flight control manual was compiled, which includes the basic statutes regulating flight activity, the recommendations of research institutions, meetings and conferences, and experience in the work of advanced units and subunits.

The main purpose of the manual is to establish a single system of organization of training, certification and monitoring of those who take part in the flight control. It should be noted that initially this document was reluctantly received in the Fleet. Not everyone liked its rigidity and concreteness. Now, however, all pilots know its requirements and fulfill them punctually. As a result, the number of gaps in the training of the control group has diminished, and the former haste in its activities and unnecessary "creativity" no longer exist. /47

For example, all of the basic measures taken in the course of the training year with the control group are scheduled according to scope, deadlines and time in the manual. Thus the controllers, duty navigators and duty officers in charge of takeoffs and landings, certified for the first time to control crews, begin with the study of theoretical problems, then take part in group exercises using communications equipment, take examinations, and take practical training.

As the controller and duty navigator acquire experience, they participate in training-methodological meetings and their knowledge of their responsibilities is periodically checked. Here special emphasis is placed on their performance under complex conditions.

The volume of work of the controller and his assistants in a day of preliminary training is defined in the instruction, in which only the most important problems are briefly set forth. We also tried to spell them out in the form of a planning chart. Results were not slow in coming. The officers assigned to the control group began to spend more time in subunits, to have discussions with the crew captains (especially with the young ones) concerning the procedure for conducting exercises which were more complex for them, etc.

As was noted above, a definite system for monitoring flight control in the Navy was established. It is carried out at the airfield in the course of the flight shift. Primary attention is devoted to the quality of evaluation of the air, sea and meteorological situation; the clarity and completeness of the preflight instructions; the procedure for by-passing radar defense means and the procedure for weather reconnaissance; proper allotment of attention in directing flight crews; adherence to the planning schedule and the requirements of radio communication; operations in a complex situation and in special cases; continuity of radio and radar monitoring of aircraft and also continuity of communication; and the maintenance of order at the airfield. Other elements are evaluated in accordance with the type of flights and missions being accomplished by the unit or (subunit).

The air staff officers have made a considerable effort to implement the aforementioned innovations. Therefore, during the flight methodology meetings of the command personnel of N. unit, demonstration flights were conducted. They were directed by Colonel A. Sokolov. It must be said /48 that the commander and Party organization on this unit are highly responsible with regard to questions concerning control and try to take note of and implement for them-

selves everything new and advanced. It is not accidental that the first gratifying results of training and certification of a flight control group according to the system described were achieved precisely here.

The experience of the best became the property of Navy pilots. And today one can boldly speak of significant advances in perfection of the control process in many units and subunits.

We are completely in agreement with the requirements for the flight controller presented by V. Nedadayev and P. Pshenichnikov. According to them, the controller is a highly qualified officer who has completed special training. His mastery, as a rule, exceeds that of any crew member. He must be cool, self-restrained, and capable of thinking logically, quickly and correctly, of foreseeing the situation in which the men could find themselves.

There are a number of such officers in aviation. Take for example, Lieutenant Colonel Ye. Yakovlev. He always skillfully controls crews, strictly observes flight rules. When Yakovlev is controlling flights, one feels that a real master is at the airfield. The officer maintains close contact with the pilots. This enables him to be familiar with the level of training and morale of the men, to have a clear understanding as to what each of the subordinates is capable of doing, and to provide them with timely assistance in word and action. Lieutenant Colonel Yakovlev is constantly on the lookout; he diligently improves his mastery. He enjoys deserved authority in the Navy.

But, unfortunately, here and there some comrades still neglect training, willfully disregard the requirements of statutes, condone so-called "trifles," such as increasing taxiing delayed takeoff speed, starting the engine too soon, etc. Here, as a rule, they have a poor knowledge of instructions; they barely take into consideration and analyze preconditions for accidents; the necessary effort to increase flight safety is not made. One encounters such a situation when the controller

is not able to quickly and skillfully evaluate the situation which has arisen, make a wise decision, and assure its precise execution.

Thus, because of poor organization of work at the airfield by Major V. Trapeznikov, conditions for a potentially dangerous situation arose. When it was analyzed, the reasons revealed were those discussed above. For example, Trapeznikov did not adhere to one of the elementary rules for controlling crews from the ground. He neglected his personal preparation and decided that there was no need to reread and study the recommended documents. This bears witness to the fact that at times, we do not sufficiently instill a high sense of responsibility in our controllers.

Commanders and political, Party and Komsomol organizations must conduct the work so that every flight day serves as an example of high organization and order. We must more boldly uncover and immediately root out deficiencies in the control of crews, be implacable toward officers and men who treat their service obligations in a slipshod manner.

Persistently and daily, we must disseminate the advanced experience which must be implemented in the units and subunits. This will permit improvement in flight organization and further improve the combat training of naval aviators.

Photographs - p. 46, Caption: On a mission.

p. 47, Caption: These Guards aviators comprise an outstanding crew. Not long ago they successfully carried out a missile launch and with a direct hit they destroyed a naval target. In the photo (from left to right): Guards Senior Sergeant A. Pavlyukov, Guards Captains N. Medvedev and V. Mikhaylov.

MORSKOY SBORNIK, No. 1, 1972, pp. 51-54.

HOW POLITICAL TRAINING IS BEST CONDUCTED

by Candidate of Pedagogical Sciences,
Docent Captain 2nd Rank V. Ruzhin

How indeed is political training conducted well? /51
This question often disturbs young group leaders. They do not all succeed in having a lecture, story or seminar, or a conversation cause the students to reflect deeply on the matter in question, the effort to analyze the results of their service and conduct with full account of the demands made by the Party and State upon the armed defenders of the Motherland.

Conducting training with materials of the 24th CPSU Congress on the topic "The Economic Policy of the Party at the Present Stage The Improvement in the Welfare of the Soviet People," Captain 2nd Rank G. Mazepa began from an explanation of the significance of the directives on the five year plan of development of the economy of the USSR for 1971-1975 for the growth of the economic and political might of the Soviet Union and all countries of the Socialist camp. He emphasized that the progressive peoples of the world are not indifferent to the figures for future development of the economy of the leading country of Socialism, particularly under conditions, in which, in many capitalist countries, a slump in production and an increase in unemployment sets in.

"We successfully fulfilled projected plans and set about the achievement of new party objectives," said the propagandist. "The rates of our economic growth, and the rate of increase in productive potential delight many. Look at the data for the recent period, including 1970. Whereas it took the Soviet Union, with enormous social productivity, 10 years to double national income, it took the U.S. 20 years and Britain over 30 years. Whereas it took our coun-

try 8-1/2 years to double our volume of industrial production, it took the U. S. 18 years and Great Britain 22 years."

The unrated seamen and petty officers reacted keenly to the officer's words and asked questions.

Development of the students' interest in political skills is facilitated by the purposeful formulation of a system of scientific sociopolitical concepts for them. V. I. Lenin said that "the main task of any leader is to impart basic concepts of the subject being discussed . . . ."*

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*V. I. Lenin, Poln. sobr. soch. (Collected Works), Vol. 4, p. 40.

Captain 3rd Rank A.Pupyr'yev, for example, preparing to conduct political training on materials from the 24th CPSU Congress, took an especially serious view of the selection of basic concepts which required the most thorough explanation and special effort by the students for their mastery. In the training session where results of development of the national economy for 1966-1970 were discussed, the officer drew the attention of the group to the concepts "national income," "productivity of labor," "real incomes of workers and service personnel,""social welfare funds""wages," and "capital investments." In the process he showed the economic interdependence between the productivity of labor, wages and social welfare funds. The use of clear facts and figures by Pupyr'yev helped /52 students to master the concept of "social welfare funds."

The propagandist emphasized that whereas our medical service is paid for with public funds, in the U.S. workers pay out of their own pocket for even the smallest service: filling a tooth costs $6.90, a chest x-ray $12.50 and a five-day stay by a woman giving birth in a maternity home costs $455!

"How much do you pay to keep a child in kindergarten?"

"Twelve rubles per month," he answered.

"But this costs the state 50-60 rubles. Thus the state pays out 40 rubles for you monthly from public funds. Outlays and benefits to the populace from social welfare funds increased more than 1.5 times for the five-year plan. The per capita cost for the populace in 1970 was 262 rubles, versus 182 rubles in 1965."

Concluding the discussion, the propagandist indicated the interdependence of this concept with the concept of "national income." He explained that social welfare funds, which are a part of national income, are at the direct disposal of workers, in the form of pensions, assistance to mothers with many children and for temporary disability, stipends, paid vacations, etc. Part of the funds go to social welfare (public education, medical service, maintenance of kindergartens and day nurseries, clubs, sanatoria, etc.). Distribution through social welfare funds embodies the elements of the Communist method of distribution.

In training sessions on the topic "The 24th Congress on the Sociopolitical Development of Soviet Society," Captain-Lieutenant S. Koliyev paid special attention to concepts such as "class," "socio-economic structure," "government," "nation," "nationality," "social structure of society," "social relations," "morality," "multifaceted, harmonious development of "character," "culture," and "remnants of the past in the consciousness and deed of man." In the process, he cited examples from life.

In the resolution of the 24th Congress on the Summary Report of the Central Committee of the CPSU it was noted that "public opinion must be directed more decisively to the struggle against infractions in work discipline, money-grubbing, parasitism, embezzlement, graft and alcoholism. It is essential to continue the struggle against all remnants of the past in the consciousness and deeds of the people."*

*Materialy XXIV s"yezda KPSS (Materials of the 24th Congress of the CPSU), Politizdat, 1971, pp. 205-206.

The propagandist showed the harm which alcoholism inflicts on our society. Infractions in work discipline, embezzlement, parisitism, hooliganism and other more serious crimes are related to this evil.

The officer's account elicited a desire by the petty officers to exchange opinions and to argue. No one in the group was indifferent. Each thought and stated his own opinion. Having listened to those who spoke, the officer attempted to change the views of those who were mistaken, often citing the behavior of their own comrades.

The frank discussion, which agitated each participant in the training, came about because the propagandist related the theoretical material to life.

When the audience thinks, argues and is agitated in the discussion of study material, it means the propagandist has succeeded in influencing the minds and feelings of the students. Such training fosters in unrated seamen and petty officers high morale and develops in them high morality.

As a rule, students take a positive view of those training sessions, in which an atmosphere is created which induces understanding, a collective search for truth and active thought.

As we know, political training is conducted with condition aboard watch sections aboard ships on long cruises. They have less continuity than usual. Therefore, the methods chosen by Captain-Lieutenant S. Koliyev, under such conditions, were also different. He led a discussion, allowing the students to ask questions and express their attitude toward what was said during the course of his remarks. In addition, he himself put questions to the petty officers. All of this heightened /53

their activity and spared the excessive fatigue which arises in the course of extended lectures and discussions under cruise conditions.

It is very important for the propagandist to know the range of interests of his students, their educational level and family situation. This helps to influence the consciousness of the unrated seamen and petty officers, induces them to take an interest in what he is telling them.

Captain 1st Rank M. Tatarenko is not always leader of the group in which he conducted training according to the directives of the 24th Party Congress. Before addressing the submariners, he first inquired which places the students had come from when they joined the Navy. And, taking this into account, he gave them individual assignments for independent training. In the course of training, he turned to Petty Officer First Class A. Zapletnyuk, asking him to discuss what will be constructed under the new five-year plan in Kazakhstan and, in particular, in his home town of Karaganda.

The petty officer responded to the propagandist's request with pleasure and told his comrades that in Kazakhstan, during the five-year plan, construction of the Karaganda Metallurgical and Ore-dressing Combine will be completed. In addition, construction of a factory for dressing coking coal and a plant for manufacture of rubber products is planned. He announced with pride that an output of approximately 84 million tons of coal will be achieved in Kazakhstan in 1975.

His compatriot, Petty Officer 1st Class S. Nurumbetov, embellished Zapletnyuk's report. He discussed the changes which will occur during the five-year plan in Aktyubinsk.

After them, Senior Seaman A. Ryabokonev from the Donet Basin, Senior Seaman A. Dremlyuk from Cherkasy Oblast and Petty Officer 1st Class A. Kuz'min from Poltava spoke.

In regular political training sessions or in one /54

of the evenings, the officer advised listening to those who had been on leave concerning changes which had occurred at home during the past five-year plan. In the course of the political training sessions he told the unrated seamen and petty officers what changes he noted himself while on leave in his own sovkhoz* in Rostov Oblast.

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*Sovkhoz--state farm.

Established fact, confirmed by statistics, possesses the greatest validity in political training. With a skillful, systematic approach, the materials of the 24th Congress create the most favorable opportunities for this.

Thus, in the conduct of political training, Captain 1st Rank N. Dunayev, without misusing the abundance of statistics, used them thoughtfully, comparatively. If they are cited one after another, without comparison, they can quickly bore the students. For comparison of data on fulfillment of the goals of the last five-year plan, the propagandist took as basic indices the 1940 statistics. He emphasized that the country's industrial successes on the eve of the Great Patriotic War permitted us to withstand and defeat a strong enemy.

"Here is how this comparison looks," said the officer. "Whereas then we produced only 48 billion kilowatt-hours of electrical energy, now it is 740 billion kilowatt-hours. This means that in 1970 we had exceeded that production more than 15 times, i.e., the electrical capacity of the country had increased fantastically. Petroleum production grew from 31 million to 333 million tons, i.e., more than 11 times. And in the smelting of steel we almost surpassed the U.S.".

Diagrams are an expressive means of presenting statistics. The propagandist utilized them extensively in his lecture, asking several students to give explana-

tions and teaching them to skillfully utilize these graphic aids.

N. Dunayev also utilized statistical tables. For example, a table showing participation of the Union Republics in fulfilling the current five-year plan enabled the students to more fully comprehend the magnitude and significance of the statistics, behind which stand the resources of the millions of Soviet citizens in the construction of Communism.

"Events whose progress I can trace on a map," wrote K. D. Ushinskiy, "penetrate my being far more lastingly and are summoned from it far more readily than those which are performed for me in air, in some undefined spaces."* By reference to a map, the abstract

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*K. D. Ushinskiy, Sobr. soch. (Collected Works), vol. 3, p. 175.

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will be made objective and will be better understood. Therefore, in training sessions on the materials of the 24th Congress, Captain 2nd Rank G. Mazepa made extensive use of geographical chart, indicating new constructions in the five-year plan. The chart created great interest with a sketch of the"Druzhba" oil pipeline. Unrated seamen and petty officers came up to it during a break and carried on a lively discussion of its role in strengthening the solidarity of the countries of the Socialist camp.

In raising the level of training, the significance of technical means of propaganda--films, slides, records and tapes, television--is great. There is a rich selection of artistic and documentary films, records and tapes at depots and at the disposal of ships and units. Many crews have the opportunity to watch interesting television programs at night. The art of the propagandist is to select from this abundance of material the

required films, tapes and records and also to systematically and correctly utilize them.

The films"The Ulyanov Family," "A Mother's Heart," "Executed at Dawn," "The St. Petersburg Years," "A Younger Brother," etc. leave a deep impression on the consciousness of unrated seamen and petty officers studying the biography of V. I. Lenin. The films "Service to the Soviet Union," "True Sons of the People," "Under Combat Colors" and others are an excellent aid in the training of young seamen. Thus we are concerned with making the technical means of propaganda excellent aids to group leaders in raising the quality of training.

The success of group leaders in political training is determined above all by the enthusiasm of the propagandists themselves toward the mission entrusted to them. This enables them to conduct training sessions with students creatively and with vigor, so that none remain indifferent.

Photograph caption, p. 53: Political exercise in the submariner Combat Glory Room. The men attentively listen to the recorded account by Hero of the Soviet Union V. Starikov, former Commanding Officer of submarine M-171.

MORSKOY SBORNIK, No. 1, 1972, pp. 59-61

PIONEER OF DOMESTIC SUBMARINE BUILDING
(100th Anniversary of I. G. Bubnov's birth)

by

I. Bykhovskiy

The most distinguished scientist and shipbuilder, /59
Professor Ivan Grigor'yevich Bubnov, was born on 18 January, 1872 in Nizhniy Novgorod. He has gone down in Russian naval annals as an outstanding designer and builder of the first Russian submarines and also armoured battleships.

In 1896 I. G. Bubnov received an appointment to teach at the Naval Academy. While there he decided, on his own initiative, to study the feasibility of having the nation's industrial forces build a combat submarine. For this purpose, he combined his teaching at the Naval Academy with research at the model basin and practical activity at the Baltiysk Shipyard. The scientist soon became firmly convinced that Russia could build submarines herself.

In his search to find the best material from which to make submarine hulls, I. G. Bubnov studied the possibilities of metallurgy. He made shipbuilders aware of the need for imposing high requirements on the grade of steel to be used for submarine hulls, with respect to the elastic limit of the steel as well as its yield strength.

Toward the end of the 19th century, the Ministry of the Navy suddenly realized that Russia was in danger of falling behind the other naval powers in the development and construction of submarines. They attempted to purchase them from the USA, but since the Americans were asking a high price for them, they finally decided to build their own submarines. According to a 20 December 1900 order, under the Naval Technical Committee a Commission

for the Design and Construction of Semi-Submerged Vessels was established. As the appointed chairman of this Commission, I. G. Bubnov energetically undertook his responsibility. Foreign submarine building experience, it was decided, would be considered but not blindly imitated. The Commission would proceed on its own. I. G. Bubnov, who designed the hull of the boat, himself set the example. He decided to place the main ballast neither in the middle-body of the pressure hull nor in the superstructure above the hull, as the Americans did. Instead, he became the first in the practice of submarine building to place ballast tanks at the tips of the hull. His innovation subsequently became one of the major characteristics of Russian submarines. It enabled them to submerge to maximum possible depths without fear of water penetrating the pressure hull should these ballast tanks be damaged. In addition, it afforded more space inside the boat for machinery and crew. Bubnov decided to make the hull of the designed boat from steel with a high yield strength. The builders used the Dzhevetskiy torpedo tube to increase the fire power of this first Russian submarine. An attempt was made to replace the gas engine with a diesel, but, unfortunately, the bulky diesel engines which existed at that time were unsuitable for this purpose.

Four months later, Commission members completed /60
the design for an "underwater destroyer with a 113-ton displacement". The order to build it was given to the Baltiysk Shipyard.

I. G. Bubnov was appointed to build the first Russian combat submarine. The young shipbuilder was exceptionally energetic and efficient; he combined supervision of the ship's construction with lectures at the Academy and research at the model basin.

Assembly of the ship's hull was completed in 1902. At about the same time, Bubnov finished his basic work entitled "Stresses in Ship Plating from Water Pressure." A number of theses in this work had a direct bearing

on submarine construction.

During the summer of 1904, tests were run on the first Russian submarine, known as the DEL'FIN. These experiments showed it to be fit for combat. It was transferred to the Far East during the Russo-Japanese War, and during World War I was transported by rail from Vladivostok to Arkhangelsk.

Also in 1904, following the DEL'FIN, I. G. Bubnov created a new and improved design. The Baltiysk Shipyard, from this design and within eight months, was able to construct a series of six vessels of the KASATKA class. They were the first ships fitted out with a deckhouse with a bridge, as well as an evolved superstructure, which enhanced their seakeeping capabilities. These ships participated not only in the Russo-Japanese War and WW I, but also in the Civil War, operating with the Astrakhan-Caspian Flotilla.

In 1909-1911, I. G. Bubnov developed two designs for even more seaworthy submarines. The experimental submarines MINOGA and AKULA were built from these designs. They were transitional stages toward the creation of the larger and better armed MORZH and BARS class submarines, which formed the basis of the Russian submarine fleet during WW I. In designing the hull of his submarines, Bubnov was the first to employ an analytical method to determine the optimal lines, then, like all the shipbuilders before him, and for the very same reason, he used a less exact graphic method.

The MINOGA is renowned in the annals of submarine construction as the world's first submarine with directly reversible diesel engines. I. G. Bubnov made it the first in the practice of shipbuilding to have spherical bulkheads in its design. Bubnov placed the ballast on the MINOGA not only in the light end tanks but also in the superstructure, where he also installed deck tanks.

The AKULA had a significantly greater displacement than all the earlier submarines built in our country. At the onset of WW I, it was the most seaworthy and

best armed of all our submarines, and was one of the most active submarines in the Baltic throughout the entire war. This ship was the first to use additional equipment for laying mines as well as a device for operating diesels under water.

It is appropriate to note here that I. G. Bubnov immediately recognized the significance of M. P. Naletov's proposal for developing a minelaying submarine and helped him, in many ways, in carrying out his plan. In January 1907, right after Naletov's plan was discussed by the Naval Technical Committee, Bubnov wrote that he could finish building the AKULA as a modified minelaying submarine capable of carrying 20 mines on board. He clearly formulated the requirements with which submarine-laid mines should comply, and was the first to propose that the mine should be adapted to the submarine and not the reverse, as many at that time thought. /61

In 1911, Bubnov worked out two modification of a new design which called for even greater displacement and more powerful armament than that of the AKULA. In accordance with one of the modifications, the keels for three MORZH class submarines were laid in Nikolayev that very same year. Between 1912-1915, the keels for 24 BARS class* submarines were laid in Petersburg, Revel and Nikolayev, in accordance with another modification of the same design. Up to 1915, Bubnov had developed 6 designs, from which he built 38 submarines, i.e., half the submarines in the Russian Navy at the time. . . .

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BARS class submarines were part of the Soviet Navy for a long time. The last of them were utilized as floating battery charging stations until 1953.

By direction of the Sovnarkom (Council of People's Commissars), I. G. Bubnov prepared a memorandum in May 1918 concerning submarines built from his designs, their

technical state and the feasibility of transporting ther by rail to other theatres. It was this memorandum which helped the Soviet sailors carry out V. I. Lenin's famous plan to reinforce the Astrakhan-Caspian Flotilla with four KASATKA and MINOGA class submarines. These ships arrived in Astrakhan in 1918-1919 and participated in combat operations against the British interventionists.

On one of these missions I. G. Bubnov contracted typhus and died on 13 March 1919.

The organization of our country's submarine building industry is closely associated with the name of I. G. Bubnov. This distinguished shipbuilder laid down the principles of scientific submarine design in his works. His creative legacy, is of interest to Soviet shipbuilders, who in many respects developed and augmented the tenets worked out by this outstanding scientist and shipbuilder.

Photographs

- p. 60, caption: I. G. Bubnov at the building slip of the submarine AKULA, prepared for launch.

TITLE: Calendar of Memorable Dates for 1972

AUTHOR: None

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MORSKOY SBORNIK, No. 1, 1972, pp. 64-65

CALENDAR OF MEMORABLE DATES FOR 1972

JANUARY /64*

2--1942 (30 years). Completion of the Kerch-Feodosija amphibious landing forces of the Transcaucasian (Caucasus) front and forces of the Black Sea Fleet. The Kerch Peninsula and the city of Feodosiya were liberated, and the second attack of the German-Fascist troops on Sevastopol' was broken.

9-1797 (29 December 1796)** (175 years). Birth of F. P. Wrangel', Russian seafarer, honored member of St. Petersburg Academy of Sciences, one of the founders of the Russian Geographic Society and leader of an expedition to explore the coast of Northeast Siberia, 1820-1824.

**Dates in the old style are shown in parentheses.

17--1922 (50 years). The Central Committee of the Russian Young Communist League decided to mobilize 2000 Komsomols in the Red Navy.

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*Numbers in the right margin indicate pagination in the original text.

18--1942 (30 years). The 1st Mine-Torpedo Air Regiment of the Air Forces of the Red Banner Baltic Fleet, the 72nd Red Banner Combined Air Regiment of the Air Forces of the Northern Fleet and the 5th and 13th Fighter Regi-

ments of the Navy were the first reorganized as Guards regiments.

18 (6)--1872 (100 years). Birth of G. I. Bubnov, distinguished naval architect and creator of the first Russian naval submarines.

January, April, June 1897 (75 years). The work of Admiral S. O. Makarov, "Discourses on Questions of Naval Tactics," was published in the journal Morskoy Sbornik.

FEBRUARY

February, 1922 (50 years). First mobilization of 2000 Komsomols for reinforcement of the ranks of the Red Fleet.

MARCH

14-17 (1-4)--1917 (55 years). Revolt of sailors, soldiers and workers in Kronstadt, Revel and Helsingfors.

19 (7)--1872 (100 years). Founding of the All-Russian Society Furthering the Development of Water Transportation and for the Safeguarding of Human Lives on Waterways of the USSR.

25--1922 (50 years). The Presidium of the All-Russian Central Executive Committee adopted a resolution on holding the entire Red Army and Red Navy to a solemn revolutionary pledge, a Red Oath which ought to become the "solemn expression of commitments to the Workers' and Peasants' Republic and its government." The day designated for pledging the Red Oath was 1 May.

APRIL

1-4--1922 (50 years). The first meeting of the All-

Russian Conference of Naval Personnel took place in Moscow.

4--1942 (30 years). The cruiser KRASNIY KAVKAZ, the destroyer STOYKIY, the minelayer OKA, the minesweeper "T-205," the submarines "D-3," "M-171," and "K-22" were redesignated as Guards units.

16 (5)--1722 (250 years). The Naval Regulation, "Concerning the Administration of the Admiralty and Yards and the Duties of the Admiralty Board and All Others abiding in the Admiralty," was introduced.

21--1932 (40 years). The Pacific Fleet was created.

28--1942 (30 years). Amphibious landing by the Northern Fleet of the reinforced 12th Independent Naval Infantry on the shores of Motovka Gulf.

MAY

13 (30 April)--1917 (55 years). The Central Committee of the Baltic Fleet was created.

20--1942 (30 years). The Order of the Great Patriotic War 1st and 2nd class was established, to award to those distinguishing themselves in battle for the Soviet Motherland in the Great Patriotic War against the Fascist invaders.

May, 1702 (270 years). Founding of the first shipyard of the Baltic Fleet at the mouth of the Syaz' River (near Lake Ladoga) and laying down the first ships - there - frigates.

JUNE

21 (9)--1822 (150 years). Opening of the Sevastopol' Naval Library.

June-November 1942 (30 years). Breakthrough of three

echelons of submarines of the Red Banner Baltic Fleet from Kronshtadt through antisubmarine positions into the Baltic Sea for operations against maritime communications.

JULY

4--1942 (30 years). Completion of the heroic eight-month defenseof Sevastopol'. Noting its significance in the history of the war, the Soviet Information Bureau reported: "The military and political significance of the defense of Sevastopol' in the Great Patriotic War is enormous. Pinning down a large quantity of German-Rumanian troops, the defenders of the city confused and thwarted the plans of the German High Command."

5 (23)--1802 (170 years). Birth of P. S. Nakhimov, distinguished admiral, in whose honor orders and medals were instituted, and also the Nakhimov Naval schools were established.

15 (3)--1822 (150 years). The crew of the brig RYURIK, under the command of the navigator Ye. A. Klochkov, discovered the Ryurik Bank (named in honor of the ship) /65 south of the island of Tasmania.

15 July-14 October 1942 (30 years). The transfer of the leader BAKU and the destroyers RAZUMNYY and "RAZ"YARENNYY from Vladivostok to Kola Gulf via the Northern Sea Route.

17--1942 (30years). Beginning of the heroic defense of Stalingrad by troops of the Red Army. The Volga Flotilla and naval rifle brigades also participated in the defense of the city.

18--1922 (50 years). The first graduation of commanding officers of the Red Navy from the Naval Staff College took place.

25--1942 (30 years). Beginning of the heroic defense of

the Caucasus by troops of the Red Army. The Black Sea Fleet, theAzov and Caspian Flotillas and naval rifle brigades took part in the battle for the Caucasus.

28--1932 (40 years). The ice-reinforced steamship SIBIRYAKOV completed the first through voyage from west (from Arkhangel'sk) to east along the Northern Sea Route in a single run (the head of the expedition was O. Yu. Shmidt, the scientific director was B. Yu. Vize, and the captain was V. I. Voronin).

29--1942 (30 years). The Orders of Suvorov, Kutuzov and Aleksandr Nevskiy were established.

AUGUST

10 (28)--1912 (60 years). The schooner SVYATAYA ANNA, under the command of Lieutenant G. L. Brusilov, departed St. Petersburg on an expedition for passage through the Northern Sea Route from west to east.

19--1942 (30 years). Beginning of the defense of the Novorossiysk Naval Base.

25-27--1942 (30 years). Heroic actions by the crews of the ice-reinforced steamship SIBIRYAKOV, the escort DEZHNEV, and by the shore battery on Dikson Island in a battle with the Fascist heavy cruiser ADMIRAL SCHEER.

27 (15)--1872 (100 years). Launching of the first Russian mastless, seagoing, twin-towered ironclad (with 12-inch guns), PETRVELIKIY (9665 tons).

27 (14)--1912 (60 years). The ship SVYATAYA FOKA left Arkhangel'sk under the command of Senior Lieutenant G. Ya. Sedov on an expedition to the North Pole.

29 (17)--1822 (150 years). From Kronshtadt the frigate KREYSER, under the command of Captain 2nd Rank M. P. Lazarev, left on a round-the-world voyage, and the sloop LADOGA, under the command of Captain-Lieutenant A. P. Lazarev, left for Russian America.

SEPTEMBER

3 (22)--1847 (125 years). Discovery of two islands in the Sea of Okhotsk--Men'shikov and Reineke - by the Commanding Officer of the brig OKHOTSK, Captain-Lieutenant V. K. Poplonskiy.

25--1942 (30 years). Start of the transit of six submarines from Petropavlovsk-Kamchatka through the Panama Canal and Atlantic Ocean to the main base of the Northern Fleet at Polyarnoe.

25--1942 (30 Years). Start of the defense of the Tuapse Naval Base.

28 (17)--1797 (175 years). Birth of F. P. Litke, distinguished Russian seafarer, geographer, admiral, one of the founders of the Russian Geographical Society and founder of the journal Morskoy Sbornik.

OCTOBER

1-4--1922 (50 years). First large-scale maneuvers of the Baltic Fleet after the end of the Civil War.

3 (22 September)--1772 (200 years). Departure from Okhotsk of the boat SVYATOY VLADIMIR under the command of the Second Mate P. K. Zaykov, which explored and described Mednyy Island and the islands of the southwestern tip of Alaska.

16-1922 (50 years). The Fifth All-Russian Congress of the Russian Young Communist League adopted a resolution at the initiative of V. I. Lenin concerning the patronage of the Komsomol over the Navy. In the preamble to the Congress it was stated: "...taking into account the colossal role which the Red Navy plays in defense of the approaches to the Soviet Republic and considering it essential to assume herself the fundamental task of reviving the military power of the naval

forces of Soviet Russia, the Fifth All-Russian Congress of the Russian Young Communist League resolves to accept patronage over the Red Navy of the Republic."

22 (11)--1702 (270 years). Russian troops took the Swedish Fort Noteborg (the old Novgorod fortress of Oreshek, which was left to the Swedes in 1617) which secured egress to the sea. The fort was renamed Shlissel'burg (Klyuchgorod).

22--1942 (30 years). Defeat of the enemy landing on Sukho Island (Lake Ladoga).

25--1922 (50 years). Expulsion of Japanese troops from Vladivostok. Completion of the liberation of the Far East from interventionists and White Guards.

NOVEMBER

2140 hours (25)--1917 (55 years). The historic shot from the cruiser AVRORA, which heralded the start of the Great October Socialist Revolution.

15 (4)--1722 (250 years). The Astrakhan naval port was founded.

DECEMBER

1-8 (18-25)--1917 (55 years). The First All-Russian Congress of Sailors, which Lenin addressed on the 5th (22 November), was held.

22--1942 (30 years). The medals "For the Defense of Leningrad" "For the Defense of Odessa" "For the Defense of Sevastopol" and "For the Defense of Stalingrad" were established.

MORSKOY SBORNIK, No. 1, 1972, pp. 105-107.

THE MAIN HERO IS THE SOVIET NUCLEAR FLEET

By K. Leonidov

The name of author Anatoliy Yelkin is known to a wide circle of readers. For many of them, he was one of the first to open up an "unknown country"--the nuclear fleet. /105*

The first of his works was a documentary account dedicated to submarines "Korabli ukhodyat v legendu" (Ships Become a Legend), "a story about the nuclear submarines, the captains of the North Star, and of faithfulness to the colors" (as its author describes it). Later came the essay "Aysbergi nad nami" (Icebergs Above Us), and last year the documentary "Atomnyye ukhodyat po trevoge" (Nuclear Submarines Go on Alert). Finally, "Aysbergi nad nami" has appeared as a separate book*

*"Korabli ukhodyat v legendu" (Molodaya gvardiya, 1968, No. 9, 10); "Aysbergi nad nami" (Moskva, 1970, No. 5); "Atomnyye ukhodyat po trevoge" (Moladaya gvardiya,1971, No. 1, 2, 3); "Aysbergi nad nami" (DOSAAF All-Union Society for Cooperation with the Army, Air Force and Navy Publishing House, 1971. 224 pages. 100,000 copies. Pric: 34 kopeks).

One can certainly say that the naval theme has become the writer's main one. He was also the compiler of the popular monograph "Korabli-geroi" (Ships-Heroes), and is one of the editors of the forthcoming almanac "Okean" (Ocean).

Yelkin's stories and essays are not the fruit of armchair reflection. He is frequently present with the Fleet, always corresponding with his subjects and following their careers. Many of those about whom he writes have become his friends.

*Numbers in the margin indicate pagination in the original text.

Our north, the Artic is close to Yelkin's heart. This is no accident; he spent his childhood in Murmansk. He recalls the wartime metropolis of the North, the raids by Fascist planes, and the burning houses, and the courage and stoicism of the people of Murmansk. Every year, when the annual holidays come, with a heart tied to the places back home he takes an old well-worn rucksack and flies to the North. Yelkin's works are written in a romantic vein. He is not just a chronicler of the life and work of submariners, but a man enraptured with this selflessness and devotion to duty, and he is in love with their hard but heroic profession. He tells about people who have mastered nuclear submarines and have driven them through the ocean, who have assaulted the Pole from the deep, who have girdled the globe traveling in company, and who have created the traditions of the nuclear submarine fleet.

We learn about how they conducted tests on the Soviet nuclear submarine, created by the genius of Soviet scientists and through the intense effort of shipbuilders--workers, technicians and engineers. There is an account of a missile salvo by a nuclear submarine, and the dialog, recounted by the writer, between the designer of the missile and the submarine's Political Officer. It was about the enormous responsibility Soviet servicemen have for the fate of the Motherland and for future generations.

There is not just one hero in the stories. Scores of people pass before the reader--seamen, officers, admirals, those who comprise the forces of the Fleet, and are its pride and glory.

Nevertheless, the author writes with special sympathy about some of them. There is the Komsomol leader on the submarine LENINSKIY KOMSOMOL, Valeriy Rozanov. Though still a young man, just on the threshold of life, he strikes us with his moral integrity and deep inner conviction. These remarkable qualities were strikingly displayed when Valeriy Rozanov performed a feat while fighting a fire ashore. Lieutenant Boris Korchilov

sticks in our memory as a hero of our time.

The author does not conceal the difficulties which stood in the way of those who developed nuclear submarines, and those who taught them to "run." He helps us to trace the fortunes of many submariners on the LENINSKIY KOMSOMOL, the first of the Soviet submarines to cruise to the North Pole, and also of the submarine commanded by Captain 2nd Rank Yu. Sysoyev, which surfaced exactly at the point of intersecion of the terrestrial meridians. We read with interest of the transarctic cruise of an N-Class nuclear submarine which A. Mikhaylovskiy commanded. There are years of hard work behind every submariner-painstaking development of tasks in combat training, numerous trips to sea for torpedo and missile firing, extended cruises through the ocean expanses, separation for months at a time from home port, relatives, comrades and country. /106

Soviet sailors are worthy inheritors of the glorious traditions of the Russian Fleet.

Submarines in "Nuclear Go on Alert", the author reproduces a conversation many years ago between Churchill and the former Minister of the Merchant Fleet of the USSR, V. Bakayev. A. Yelkin recalls once more that even Englishmen were compelled to admit that our Motherland has long been considered a nation of seafarers.

The Soviet Navy can now be seen in the most distant reaches of the world ocean.

In "Nuclear Submarines Go on Alert", the author cites an excerpt from a letter by the Chief Navigation Officer of the Navy, Rear Admiral A. Motrokhov, revealing that in just five years (1964-1968) warships and auxiliary vessels of the Navy completed more extended cruises than in the preceding 46 years. And in the same period the number of official calls in foreign ports also rose sharply.

The author accurately depicts the atmosphere of life aboard a submarine on a long cruise. Man's world is reduced to a small space--a few dozen cubic meters. There

the submariner stands watch and takes his rest. His moral and physical resources undergo stern tests.

Nevertheless, a man bears all this, overcoming not only the boundless expanses of the ocean and the heavy sea threatening the ship, but also the heartaches of homesickness.

It's told in "Nuclear Submarines Go on Alert" how during a cruise on one submarine a notebook made the rounds of the compartments, in which the sailors wrote their innermost thoughts about the Motherland. For example, Seaman 1st Class V. Maksimov wrote, "Motherland! How one wishes to do something fine, good and useful for you, so that I might say I have not spent my life in vain." How truly this reflects the feelings of every Soviet sailor!

The major role political workers play in forming and strengthening the Fleet collectives is revealed in the stories. The author names many "nuclear commissars" --officers A. Karavayev, N. Usenko, M. Volkov, Rear Admiral S. Bevez and others.

Some criticisms must be made about the works under review, too. For example, the excessive burdening of the stories with data on the conquest of the North, geographical discoveries and sea voyages is striking.

Naturally, even in documentaries an author has the right to use his imagination. But it seems to us that at times Yelkin excessively embellishes the life of the submariners. There are still a good many hardships in military posts, even though much is being done to improve living conditions.

The reader notices, undoubtedly, some roughness of composition. The author often starts a second topic without concluding the previous one. And various inaccuracies are found. For example, when the author mentions Drake Passage in "Ships Become a Legend," he writes that Drake retraced Magellan's route.* But /107

*Molodaya gvardiya, 1968, No. 10, p. 272

it is known that Magellan went from the Atlantic to the Pacific not through Drake Passage, which separates Tierra del Fuego from Antarctica, but between the continent of South America and Tierra del Fuego--the strait which was later named after him.

But these and other shortcomings do not detract from the main fact:A. Yelkin has opened new pages in the history of the Soviet nuclear fleet and has introduced us to many remarkable submariners. He has done a fine job, addressing himself to a theme of contemporary Navy life. We hope that other maritime writers will follow his example.

MORSKOY SBORNIK, No. 2, 1972, pp. 12-17.

IN REACTIONARY SERVICE

(Ideological Conceptions of Imperialism)

by Rear Admiral F. Chernyshev (Reserves)

In our time, a bitter struggle between two ideologies is going on: bourgeois and socialist. In this battle for the hearts and minds of people, which today embraces the whole world, the question concerning the conscious and final choice of the socialist road to development by all peoples is being resolved. The front in the ideological struggle now passes through all countries and continents and embraces all aspects of social life: economic and political, cultural and artistic, morality and science, and the diplomatic and military spheres. "We live under conditions of agitated ideological warfare, which is conducted against our country, against the socialist world by imperialist propaganda, using the most refined methods and powerful technological means," according to the Summary Reportof the Central Committee of the Communist Party of Soviet Union (CPSU) at the 24th Party Congress. /12

Bourgeois ideology has a dual character, since it is designed not so much for the satisfaction of the spiritual needs of this same bourgeoisie, but to subjugate the working masses, since economic coercion alone will not suffice. Striving to perpetuate the outmoded system, to delay the process of building Communism in the socialist countries, bourgeois ideology wrongly distorts the outside world, contradicting the objective process of social development, in insoluble conflict with reality.

This article is recommended for use in seminars in the system of Marxist-Leninist training of the officers on the theme of "The 24th Congress of the CPSU concerning the need for reinforcement of the struggle against bourgeois and revisionist ideologies."

The basic causes of the sharp aggravation of the ideological war under present-day conditions are explained by the fundamental changes which have taken place and are occurring in the world. Capitalism is in the stage of a deep and ever-increasing overall crisis. It cannot respond to the economic, social and cultural demands of our time, to advance ideas which would appeal to the great masses. Bourgeois ideologists themselves are also forced to recognize this. "It is precisely because of a lack of ideas that we can lose a battle, campaign and the war," according to the American diplomat Whitney.

The sharp aggravation of the ideological struggle can be traced to the successes of the USSR and the world socialist system. V. I. Lenin pointed out that the more victorious we are, the more capitalist exploiters learn to unite and proceed to a more determined attack.

Frontal assaults on socialism, instituted by the international bourgeoisie after the Great October Socialist Revolution and continued into the period of the Civil and Great Patriotic Wars, counterrevolutionary provocations against Hungary, the German Democratic Republic and Czechoslovakia have not yielded the imperialists the expected results. Not obtaining victory over socialism in open warfare, they - accommodating to a changing situation - switched to a more complicated and subtle tactic: ideological subversion, trying to undermine socialism from within. Counting on the decomposition of the Communist and overall revolutionary movement from within is now one of the most important trends in the class strategy of imperialism," L. I. Brezhnev has said.

Since their own bankrupt ideology is no longer establishing a bourgeoisie, they need to organize a so-called "export" ideology, parade in false colors, disguised as socialism, or transform the ideological baggage of their predecessors. /13

What them is the theoretical arsenal of contemporary bourgeois ideology? On what basis has it unleashed

a furious attack on the ideology of scientific Communism?

Two main trends can be discerned in the camp of our ideological opponents. The first is a reflection of the views and influence of the extreme right. Their basic thesis is open aggression and war propaganda. "Only war can resolve questions in dispute, from which diplomacy recoils," the American magazine Time emphasizes. "War is generally horrible but certain and unavoidable." The American diplomat Ronald Steele, in his book, "End of Union," writes that "intervention is the dominant motif in our postwar policy." The extreme right impudently and persistently fans the myth of a "Communist menace." Under this figleaf the U. S. is conducting a plunderous war in Indochina, England is suppressing the labor movement in Northern Ireland for civil rights, selling arms to the racist South African Republic, Israel is occupying Arab territory, and Japanese ultras and the neo-Fascists of the Federal Republic of Germany are fanning revanchist plans.

The second, a more hidden trend, is the so-called "intellectual anti-Communism." The American ideologue Masters, a representative of this school, says that international conflicts and wars are spawned by ideological differences between capitalism and socialism. We Communists, he says, for reconciliation of ideologies, and consequently genuine peace, indeed repudiate "peaceful coexistence of ideologies," i. e., we bear the responsibility for tension in international relations. The strategic goal of this trend is to muddle the role of ideology in the class struggle, the nature and causes of war, to dull the vigilance of the people, and disarm them ideologically.

Both of these trends, as indeed the entire ideology and policy of imperialism, are based on anti-communism, the essence of which, as indicated in the program of the CPSU, is a slander directed against the socialist system, a falsification of the policies and goals of the Communist Parties, and the teaching of Marxism-Leninism. Unleashing an attack on Marxist-Leninist

ideology under the guise of anti-Communism, imperialism cannot count on success, openly proclaiming its true goals. It is compelled to create an entire system of ideological myths, obscuring the true sense of its intentions, dulling the vigilance of the people. This includes assertions about "national capitalism," "the withering away of the proletariat," "post industrial society," "deideologization of public life," and "national Communism," etc.

One of these myths is the theory of convergence, i. e., the transformation of capitalism and socialism as a consequence of the technical and scientific revolution into a new industrial society which leads to a confluence of ideologies. In the opinion of a proponent of this theory, the American economist Munson, "capitalism in the proper sense of the word does not exist at present, even if it is assumed that it existed in England and America a hundred years ago." Moreover, he concludes that apparently in capitalist society the process of "deproletarization" occurs, i. e., the disappearance of the proletariat and its transformation into some sort of middle class. Consequently, down with the class struggle for social revolution and the leading role of the Communist Party in that struggle! As applied to the Armed Forces, the proponents of convergence maintain that the scientific-technical revolution, the spread of nuclear weapons and military technology, and their identical level of development, seem to eradicate the social differences between armies, and make them homogeneous in the classical sense, a unique lever in the "harmony between different social systems."

Recently, the theories concerning a single industrial society and convergence have been subjected to criticism "from the right," as being "liberal" and "spineless." In essence, this criticism is a testimony to the bankruptcy of these theories and is an effort to make a more decisive transition to open ideological subversion and military aggression. Imperialism again relies on extreme forms of political and ideological reaction, reinforcing that dangerous tendency which results in Fascism. /14

In bourgeois propaganda, the concepts of pluralism, Marxism and "national Communism" have received broad dissemination. The essence of it comes down to an attempt to oppose scientific Communism and the proletarian internationalism with new models of anti-Soviet socialism under bombastic titles: progressive socialism, human, democratic, national, etc. These theories express the basic strategy line of contemporary imperialism on transfer of the front of ideological struggle to the socialist countries, and the destruction of socialism from within with the aid of the dissident activity of the revisionists. Advocates of such theories from the camp of opportunists excessively harp on the national characteristics of countries building socialism, persistently speak of independence, sovereignty and non-intervention in the state affairs of other countries, but "forget" about the basic principles of proletarian internationalism, remaining, in essence, a position of "national egoism" and social chauvinism.

The ideologues of imperialism, both "rightist" and "leftist" revisionists and opportunitists are attempting to oppose proletarian internationalism with independence, sovereignty and equality of Communist Parties. For this purpose they invented the myth of the theory of "limited sovereignty." They spread the demogogic fable about two "superpowers," somehow jointly deciding the fate of world behind the backs of other peoples.

The concept of deideologization, or ideological disarmament of the proletariat, of the workers, is a long-range weapon of contemporary bourgeois propaganda. The authors of this cunning theory pervert the very notion of ideology, and deny any ideology, asserting that under present-day conditions, in the era of the scientific-technical revolution, ideology has become unnecessary and is dying out. "Ideology, never having been a road to action, has now ended up in a blind alley," wrote D. Bell in his book "End of Ideology." "we are the last of the ideologues; our time is a time of dying ideologies and outdated slogans," R. Steele echoes him.

The Italian philosopher Cologero confirms that "Ideology is the principal social evil of the contemporary world, and ideology is hindering the union of West and East." As a result, all of them agree that scientific ideology is somehow impossible, since a scientific forecast of the future is impossible. In essence, this means an attempt to liquidate not bourgeois but socialist ideology. The ageless words of K. Marx are beginning to materialize: "The ideologues of the bourgeoisie are enraptured with the past, come to despair the present and fear the future." The purpose of deideologization is to restrain the working masses from the study of Marxist-Leninist theory and its practical realization. The calls to reject the ideological struggle are none other than a form of ideological subversion, which according to the designs of their authors, should precede military expansion.

In the arsenal of imperialism the shock force consists in the ideology of Zionism - the ideological weapon of the powerful Jewish bourgeoisie, growing within monopolistic circles in the U. S. and other imperialist countries. At the base of this aggressive ideology lies the myth of an alleged "worldwide Jewish nation" and the unity of Jews of all countries, rich and poor, exploiters exploited, irrespective of class. The ideology of Zionism is racism, militant chauvinism, national arrogance, anti-Communism, and - especially pronounced in recent times - anti-Sovietism. Perverting the national question in the interests of militarism, the Zionists are reviving, both in theory and in practice, open Fascism. Radio Israel heartrendingly howls about the "fate of Soviet Jews," luring them to the "Promised Land." At the same time, it is silent about the fact that three-quarters of those immigrants enticed were forced to live in slums, to drag out a half-starved existence, and that of every 15,000 immigrants to Israel, 13,000 attempt to go back. /15

The reactionary ideology of Zionism, relying on the support of the U. S. and Zionist organizations in 67 countries of the world, is widely used by imperialism. At the same time, it is a national disaster for the Israelis themselves, impeding the national and economic liberation of the country from the dominance of foreign monopoly and imperialistic dictatorship. It is not by chance that in

Israel a wave of strikes and labor protests against Zionist ideology and practice, is arising. The exposure of Zionist ideology is an urgent task of our propaganda.

Revisionism is playing a treacherous role in the sharpening class struggle at the present stage. All revisionist ideology has in common a betrayal of the working class, a repudiation of the principles of socialist internationalism, and anti-Sovietism. In this connection, revisionism closes its eyes to bourgeois ideology in a criminal struggle against Marxist-Leninist ideology, and the international Communist, labor and national liberation movement.

The basic features of the ideology and policy of rightist revisionism are expressed in compromise with social democratism. In socialist countries this is a denial of the leading role of the Communist Party, a disregard of the central planning and leadership of the national economy, a reliance on the free market place and personal property, an absolutization of peaceful conquest of power, an overestimation of the forces of imperialism and its military power, a denial of the aggressiveness of imperialism and the appeal to capitulate to it. The philosophical underpinning of the rightist capitulationists is fatalism, the theory of laissez-faire and vulgar metaphysical materialism.

The basic characteristics of the ideology of "leftist" revisionism, concealed in revolutionary phraseology, are chauvinism, hegemonism, and militant anti-Sovietism. All of this has found its clear expression in the ideology of Maoism, constituting a mixture of the most diverse and contradictory currents and theories. The ideology of Maoism is not a scientific system of views, but a platform for the anti-Leninist struggle, containing within itself elements of utopian socialism, i.e., a glorification of egalitarianism; anarchism, i.e., a vindication of violence and destruction; populism - the cult of the hero and the crowd; socialist revolutionism - the moving force of revolution is not the working class but the peasantry; Trotzkyism - based on an artificial

distortion of history, permanent revolution, and pitting youth against the older generation; the study of Confucius - the cult of the supreme leader and preaching the exclusiveness of everything Chinese, and of hegemonism. As a whole then, this is the substitution of dialectical materialism with volunteerism, subjectivism, pragmatism and metaphysics.

The ideology of Maoism, parasitizing the principles of scientific Communism and the aspirations of the masses in China for socialism, is aimed at demoralization of the international Communist labor and national liberation movement. Despite the fact that the concepts and plans of the Maoists are in a state of bankruptcy and do not withstand the test of time, the revisionists in China and their associates are stubbornly pursuing their treacherous course, proceeding toward agreement with international reaction. Not by chance, Radio Israel, choking with delight, prophesies that the Chinese Peoples Republic "is sympathetic toward the steadfastness of Israel in the struggle against USSR," but the policy of Tel Aviv does not contradict the general policy line of Peking!

V. I. Lenin pointed out that "revisionism is an international phenomenon." Its social basis is the petite bourgeoisie. The 24th Congress of the CPSU gave an exhaustive critique of this alien ideology. The struggle against revisionism of the right and the "left," and against nationalism, is the most important task of our propaganda. The coincidence of the new theories of the bourgeoisie with the opportunistic tactics of the rightist and the "leftist" revisionists in the socialist camp makes them extremely hazardous. Therefore, the words of V. I. Lenin are timely now: "The question is only this: A bourgeois or a socialist ideology. There is no middle ground here ...Any derogation of the socialist ideology, any deviation from it thereby signifies a strengthening of bourgeois ideology."* /16

*V. I. Lenin, Complete Works, vol. 6, pp. 39-40.

Bourgeois ideology is experiencing a most serious crisis. The new and latest theories of the idealogues of imperialism do not stand the test of history. They cannot respond to the questions of contemporary life. And the very existence of the aforementioned theories attests to the crisis of bourgeois ideology, through forced and covert acknowledgement of the successes of socialism and the impossibility of coping with it.

The scope of bourgeois propaganda has already reached colossal dimensions, thus the enormous state apparatus with its governmental institutions, monopolies, intelligence agencies, diplomatic organizations, foreign trade institutes and cultural links with foreign governments. The church, with its centuries-old experience in stupefying the people; and the press, movies, radio, television, etc. are widely used. One agency alone, the "Associated Press, services 3000 press, radio and television outlets in 80 countries. Its payroll exceeds $48 million a year. Of 30,000 foundations created by U. S. monopolies to conduct foreign anti-Communist propaganda and organization of subversive activities, only one (the "Ford Foundation") reaches $3 billion, of which each year around $300 million is spent.

The principal foreign policy propaganda organ of the U. S. is the U. S. Information Agency (USIA), which is subordinate to the President through the National Security Council. The USIA has a work force of 13,000 employees, it has 300 centers in 111 countries, publishes 140 newspapers and journals in 29 languages, with a circulation of 30 million, spends around $200 million in order to "tip the scales of foreign sympathy in favor of the 'Free World.'" More than 5000 radio and television stations use materials from USIA. The "Voice of America" transmits programs totaling about 850 hours a week in 40 languages. Together with other radio stations, the propaganda machine of the U.S., turning the facts upside down, pours tons of filthy propaganda into the heads of radio listeners every week, the basic essence of which is anti-Communism and

anti-Sovietism.

It would be naive to think that bourgeois ideas, views, moods and tastes do not filter into our society and do not influence individuals. V. I. Lenin wrote: "Dead capitalism rots and decomposes among us, contaminating the air with miasmas, poisoning our life, seizing the new, the fresh, and the young through thousands of threads and connection to the rotten, the old, and the dead. "Bourgeois propagandists use, for their purposes, national differences, religious prejudices, human weaknesses, curiosity, vanity, passion for pleasures, aspiration for the acquisition of new technology, etc. They are trying to revive and fan the remnants of capitalism in the consciousness and psychology of Soviet citizens - such things as greed, bribery, idleness, drunkenness, slander, thievery, and tastes and habits alien to our system.

Taking into consideration the fact that in the USSR there is no social basis for ideological subversion, since we have no bourgeois class and the older generation of Soviet people are ideologically hardened, and have had considerable experience with the class struggle, imperialist propaganda attempts to influence our youth. It seeks to inculcate in our youth a cult of subjectivism and individualism, develop a consumer attitude toward life, set the individual off against society, provoke a thirst for dubious diversions, kindle conflict between the generations, etc. All of this is accompanied by appeals to resist authority, disobedience, anti-Soviet activity within the "framework of existing Soviet laws," and as a result, appeals to "silent" counterrevolution.

Bourgeois propaganda, provoking a psychological war against the Soviet Union and other socialist States, is attempting to discredit Leninist military tenets and /17
the leading role of the Communist Party in the building of our Armed Forces, and, through malicious slander to influence our servicemen, including those not serving abroad, and the personnel of ships visiting foreign States.

It is impossible to overestimate the potentialities of imperialist propaganda, but we should not underestimate it either, because this could seriously jeopardize the construction of socialism and Communism, and our defensive strength. V. I. Lenin pointed out that it is impossible to consider the struggle with bourgeois ideology as a temporary transitional campaign, dictated by a developing situation. Shielding our people from the pernicious influence of bourgeois attitudes is now acquiring special significance. We must"overcome all resistance by capitalists, not only military and political but also ideological, the most profound and powerful,"* V. I. Lenin wrote.

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* Ibid,vol. 41, p. 406.

Following the Leninist course, the 24th Congress of the CPSU inflicted a new, powerful blow on the vain theoretical and practical attempts by the bourgeois ideologues to discredit Marxism-Leninism. According to the resolutions of the Congress, "The main thing in the ideological work of the Party is dissemination of the ideas of Marxism-Leninism and the relentless, aggressive struggle against bourgeois and revisionist ideology." "The voice of truth ought to be heard on all the continents of our earth," L. I. Brezhnev said.

The November 1971 Plenary Session of the Central Committee of the CPSU emphasized with renewed vigor the growth of the ideological struggle in the international arena. The Plenary Session turned the attention of the foreign policy, ideological and propaganda organs toward the need to raise the level and effectiveness of their activity, and to actively defend the interests of our country, the interests of socialism and the entire Communist movement in the struggle against imperialist propaganda and the opponents of Marxism-Leninism. It is also necessary henceforth to decisively conduct the struggle against bourgeois ideology and opportunism, and

to educate the Soviet people in the spirit of Marxism-Leninism, and proletarian internationalism.

A powerful weapon in this struggle is the advantages of our social and governmental structure, our great and all-conquering doctrine - scientific Communism. The strength of the ideas of Marxism-Leninism lies in the fact that they express a truly scientific understanding of the world and the expectations and aspirations of the broadest masses of workers. The criterion of our socialist ideology is the successful construction of socialism and Communism. On our side there is truth in life and confidence in the future.

Marxism-Leninism as a scientific ideology of the proletariat and its sharpest ideological weapon in revolutionary transformation of society has existed and prevailed for over 100 years. During this time, Marxism-Leninism has maintained a stubborn struggle against the hostile ideologies of the bourgeoisie and revisionism. The great ideas of Communism are marching across our entire planet, winning with each passing day all young and new masses of proponents of a better future for mankind. V. I. Lenin prophesied: "However great the troubles the dying beast of international imperialism may still be able to inflict upon us, this beast will die and socialism will prevail throughout the world."*

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*Ibid, vol. 38, p. 215.

MORSKOY SBORNIK, No. 2, 1972, pp. 44-47.

THE STRONGEST TELL THEIR STORY

The best of the best took part in the 1971 Navy competition for first prize in gunnery and tactical training. /44

The editorial staff asked the prize winners to tell our readers how they prepared for the competition, what innovations in education and training they were able to put into practice and what episode of the competition they most clearly recall.

Commander of an outstanding nuclear-powered submarine

Captain 1st Rank A. Mozheykin:

Getting ready for the competitions, special attention was devoted to the training of sonarmen and the development of main control station personnel. You see, some of the experienced specialists have been transferred to the reserve and young men have taken their place. The vessel sailed a great deal and the personnel trained persistently. It suffices to note that the crew in the past year put in a record number of hours of work with the submarine. Even in pre-Congress days, the sonar team, led by Chief Petty Officer Maksimov, had become a team of first-class specialists.

In developing an organization to search and track underwater enemy, officers I. Shvedov and V. Korotkov gave their assistance. Their advice and recommendations came in very handy. During the period of preparation for the competitions we utilized the usual methods of training and education. In addition, we began to hold a "Sonarman Day." This is a novel and interesting form. Let's say a "Sonarmen Day" is announced. Materials telling about this specialty, about the best

personnel and about experience in maintenance of the equipment were prepared for it. This assists the crew of the ship to have a better knowledge of that specialty and the duties and concerns of their shipmates. And it unites the collective.

The most memorable thing was, perhaps, the moment right before the attack. After maintaining firm contact for a considerable time, the order was given to attack the target, but suddenly still another propeller noise was detected. For a while doubt prevailed. Where is the "enemy?" However, both navigating officer Senior Lieutenant Vlasov and the sonarmen quickly assisted in discriminating the underwater targets. They completed the attack successfully.

Lieutenant V. Kostyuk, subunit commander, guided missile cruiser

ADMIRAL FOKIN:

The missilemen of our cruiser had carried out their firing exercises only outstandingly over the course of several years. But when we found out that we were faced with defending the honor of the Navy in a competitive launch, uncertainty appeared on the faces of /45
some of the young unrated personnel. We had to devote more attention to psychological training of the men. It is well-known that faith in success is founded on a firm knowledge ofone's job and confidence that the equipment will not fail. In organizing training of missilemen, exercise leaders tried to complicate the situation, developing in the men skills in target search with enemy countermeasures, with breakdown of individual assemblies, etc. This trained them to test equipment thoroughly, systematically, and quickly.

Missile firing was carried out under complex conditions. All battle stations operated efficiently.

Warrant Officer V. Kir'yanov, Seaman N. Teterev and others met their obligations outstandingly, and demonstrated great maturity during the competition.

Especially remembered is the moment when the operator announced: "the target is tracked." You know, to ascertain that in a continuous field of jamming was very difficult.

Captain 2nd Rank A. Sobolev, Commanding Officer of the Destroyer BLESTYASHCHIY:

The crew of our ship took part in three aspects of the joint competitions.

The primary concern during training was the effort to establish efficient organization of service, of time, and the reduction of standards.

Our minemen took special pains. At first it was difficult for them. The head of the Underwater Weapons Department, Lieutenant V. Fentisov, was young. The men in the Department were also replacements. Nevertheless, the officer quickly grasped his duties, actively joined in the training, and very quickly taught his subordinates independently.

At the time the mines were laid for the competition, the crew acted quickly and properly. I especially want to mention Petty Officer 1st Class Arbuzov and Petty Officer 2nd Class Shevkin. Lieutenant Engineer Yu. Vyazovik, along with his subordinates, outstandingly supported the work of the minelayers. This was not easy. We were just getting ready to receive the mines when the weather sharply deteriorated and the wind increased to gale force. The receipt of mines was delayed, but when it quieted down all hands worked with redoubled energy. The norms were exceeded.

Captain-Lieutenant F. Ustinenko, Commanding Officer of the ocean minesweeper

PRIMORSKIY KOMSOMOLETS:

We devoted special attention to practical training

of the sweeping crew. The search and destruction of mines is our profession. We tried to complicate the exercise conditions and conduct of the exercises. The main thing, it seems to me, that we were able to do during the course of training, was to instill in the unrated personnel and petty officers confidence in their resources and in the reliability of their weapons. In their experience they were convinced of the truth of the maxim "tough in training - easy in battle."

During the competition the weather did not favor us. Therefore, we had to act under difficult circumstances. Our navigator, Lieutenant L. Medved', who headed the sweeping coordination crew, displayed great skill. Petty Officer 1st Class A. Yukhmin, Petty Officer 2nd Class Yu. Komarov, Senior Seaman N. Bondarenko and others were outstanding during the competition.

Great joy overcame all hands when a mine was swept.

A Submarine commander:

We were very happy to learn that our submarine was to take part in the competition. We resolved to prepare for it carefully and thoroughly. We put together a plan of operation, organized the assistance of highly-qualified specialists for the newer men, and the exchange of advanced experience.

Even earlier there had been an attempt to have /46
training approximate combat conditions. Now this was intensified. Subunit commanders, in planning practical exercises, training and classroom exercises ashore, had to foresee "breakdowns" of equipment and exercise situations suddenly introduced.

Before every voyage the men were given special responsibilities. I, together with the Political Officer, periodically reviewed them. The results were gratifying.

And now suddenly the training was over.

Until now the scene of the attack stood before our eyes. In every compartment there was stillness. At the diving plane control station Specialist 1st Class - Warrant Officer Shinkarenko confidently maintained the ship at the designated depth. Petty Officer 1st Class Lizin attentatively kept her on course.

But when Lieutenant A. Visbnev ordered the torpedo tubes to prepare to fire the enemy sharply changed course and speed. But every group taking part in the attack worked together as required.

When we surfaced, we received a semaphore: the torpedoes had scored a direct hit.

Pilot 1st Class, Guards Lieutenant Colonel N. Inanov:

During the past year many young pilots and navigators in the unit had been promoted to their positions. We were confronted with the task of putting them in service as quickly as possible, and teaching them the skill of making accurate strikes. The training base was re-equipped and a methods classroom established. As directed by the Party offices of the subunits, an experienced specialist personally took each young officer under his wing. Planning schedules were compiled so that once again the designated crew captains flew without great interruption, strictly according to the program. At the present time, all of them carry out their tasks day and night, under good and bad weather conditions, and are ready to deliver the inevitable strike against the enemy. Guards Lieutenant Colonels N. Blizniuk, V. Podzolkin, and others, able teachers and experienced air warriors, were of considerable merit in this effort.

The accuracy of the application of weapons largely depends upon the well-coordinated work of the navigator and the operator. Therefore, they must know their related specialties outstandingly. From the very first independent flights of operators they are trained to "double" as navigators. And it was not by chance that

Guards Senior Lieutenants S. Zalevskiy, Yu. Khlusov and others worked exceptionally efficiently in the air, and were always ready to aid the navigators.

Once, in the course of flights with the practical application of weapons, I happened to be at the control tower. Young pilots were flying that night. Seconds would decide the success of the mission, which was to attack the "enemy" with sufficient accuracy within the established time. Unexpectedly the weather in the target area sharply changed, a thunderstorm broke out, and communications with the aircraft worsened. However, the staff did not cancel the mission. From the range came the glad tiding - the target has been hit.

Capt. 2nd Rank E. Berlev, Commanding Officer of a detachment of boats:

During preparations for the competition we emphasized well-coordinated operations of the boat crews. You know, most of the personnel had to carry out such a responsible task for the first time.

During training we employed network charts. Work on them demanded exceptional accuracy, which at first was lacking on the part of certain subunits. In return, nobody now doubts the correctness of the course which was chosen.

The work of educating personnel was conducted under the motto: "Year of the 24th Congress of the CPSU - a year of outstanding training and service." We actively propagandized the glorious combat traditions of boatmen of the older generations. Socialist competition was broadly developed.

Happy was the moment when the leader announced to the participants in the firing exercise: "direct hit! a large fire at the target." /47

A submarine political officer:

An absolute majority of the crew carried out a combat exercise for the first time in the competition. Captain-Lieutenant V. Sviridenko, our missile subunit commander, and other officers did much to accelerate the development of the young submariners. Strenuous labor produced the desired results.

From the many forms of political work, I would like to single out the exchange of letters with military friends, who, like us, had won the right to take part in the competition. The reading of these letters had a great emotional effect on the crew and evoked an additional surge of strength.

The tense anticipation of the results of firing, and the moment when the commander expressed his gratitude to the entire crew will long be remembered.

Capt. 1st Rank Yu. Beketov, Commaning Officer of an outstanding submarine:

During the course of the entire training year, the crew confidently retained the title of "outstanding ship." Assigned tasks were carried out "very well" and "outstandingly." The Communists, as earlier, played a vanguard role in the struggle for great combat skill.

What I am saying can hardly be called new but is indubitably worthy of note. Besides the team method of training men, we extensively practiced individual tasks with petty officers and unrated personnel. The main thing here is a good knowledge of the level of their training, detailed planning and reliable systematic control over independent training.

I remember the initial stage of the bombing run. The intensity of the men, their readiness to overcome any surprises, and their complete detachment from everything prosaic.

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MORSKOY SBORNIK, No. 2, 1972, pp. 48-51.

A CURRENT PROBLEM OF NAVAL AVIATORS

by Air Force Major General S. Ruban

The first months of the new training year are behind us. /48 In response to the appeal of the Baltic soldiers and the men on the cruiser VARYAG to greet the 50th anniversary of the formation of the USSR in a fitting manner, naval aviation personnel have assumed increased obligations to further improve the combat readiness of their units and subunits. It is now possible to cite several results of how naval aviators are fulfilling their tasks in light of the requirements of the 24th Congress of the Communist Party of the Soviet Union and how they are fulfilling their obligations.

During the winter the aviators took advantage of complex weather conditions to do a lot of beneficial flying. There were increases in the number of crew captains who were able to function in any kind of weather, those declared outstanding in combat and political training, and specialists with higher class ratings. The development of military tasks performed under complex circumstances with the use of modern weapons was improved. The tactical and special training of crews was intensified and their sense of responsibility for assigned duties was heightened.

To a significant degree, these successes are also due to the fact that commanders and political organs have paid unremitting heed to insuring flight safety.

In view of the constantly increasing complexity of aviation equipment, the growing opportunities for its utilization, and the expanding radius of action, the air controller and his staff play an important role in assuring flight safety.

In recent years their training has received a great

deal of attention. The requirements for the training of air control groups have been refined, as have the procedures for training them, testing them and certifying them for independent command of flights. Trainers and methods manuals have been created.

Not everything has been done by far, however, and much work is still required to improve the system for training the air controller and his staff. The complexity of the solution to this problem lies in the fact that air traffic management involves many specialists, and the success of the activities of the air control group depends on how well their efforts are coordinated.

In the fight for flight safety, naval aviators have received well-publicized aid through the discussion of this question in the pages of the journal Morskoy Sbornik.*

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* Morskoy Sbornik, 1971, Nos. 2,3,4,6,10,12; 1972, No. 1

Participants in the discussion examined various aspects of the activities of the controller and his staff deeply and thoroughly. They offered numerous suggestions for improvement, which they had studied, analyzed and tested in practice. The most acceptable of these suggestions will be implemented in the near future.

Air traffic control is a collective process. Therefore, readers have correctly emphasized the fact that, in addition to personnel behind the control panels in the air traffic control center, the crews are also supported by maintenance personnel of the subunits at the aircraft parking aprons and at the weapons preparation site; i.e., wherever the air controller cannot directly influence the course of the flight shift.

Here it is appropriate to emphasize the special role of staffs at all levels, which must provide timely preparation and test the readiness not only of the crews and equipment, but also the weapons, communications equipment, etc.

The scope of the air controller's activity is very large, and cannot be reduced to giving commands to those on board the aircraft or at parking areas for special aircraft. At the same time, it is practically impossible to foresee in any document all of the situational variants which may arise in the course of a flight shift. This is why the controller must be thoroughly familiar with the entire process, of flight organization and be ready to make necessary decisions at a particular stage.

Let us assume that for some reason one of the aircraft in the group has not been refueled. The controller must determine exactly how long to postpone the takeoff, how to make better use of the resulting pause for the crews, to transmit notification, etc. The staff helps him with this: they also prepare suggestions on the decision made by the controller and organize its implementation. /49

The primary task of the controller is direct management of the crews on the ground and in the air. All other functions in organizing and supporting the flight are entrusted primarily to the unit staff. But this certainly does not mean that the controller does not need to be aware of all of the conditions which arise on the ground and in the air, and to react to changes in an appropriate manner.

A serious shortcoming in the training of individual air controllers is ther inability to completely comprehend the conditions of the flight shift, to make a decision quickly and correctly in a complex situation, and transmit it to the aircraft. In some units, unfortunately, the training of air controllers is concentrated mainly on radio traffic, rather than on an analysis of the situation and the adoption of well-founded measures. It is precisely the latter which causes people the most difficulty, and must receive primary emphasis in the training of controllers.

The quality of air traffic control depends not only on the training of the controller, but also his staff

(the crew of the air traffic control center).The better the crew knows and performs its duties, the easier it is to control the air traffic and the greater their safety. This is why the training of air traffic control center crews is just as important as that of the controllers. It is advisable to appoint the crew of an air traffic control center for a year and not change its composition. This develops a good mutual understanding among the specialists,which markedly facilitates supervision of the air crews.

In training the air control staff, it is difficult to overestimate the importance of an appropriate training base. In recent years, nearly all naval air units have set up special classes and trainers on their own. Their utilization, improvement in the procedures for training and testing the controller's group, and the deficiencies which persist were discussed in the articles by A. Pavlovskiy, P. Serapionov, P. Pshenichnikov, A. Makarov and others.

As an example, we can cite the class and trainer set up by one of the aviation units of the Red Banner Northern Fleet. The trainer, which simulates various situationsarising in the air, has been especially successful. The controller must evaluate the situation quickly, make a decision and give orders to the crew. If the actions of the trainee are incorrect, he receives additional inputs, which help him to understand the situation which has developed. By the way, the trainer simulates the actions not only of the controller, but also of his staff.

These trainers are recommended for all naval aviation units. Plans for them and methods for training air control groups have been distributed to the Fleets. In some places, unfortunately, they have taken the easy way and substituted simpler trainers which are not capable of simulating nearly real conditions. There is no need to prove that the training of air traffic control center crews is less effective under such conditions.

The trainers produce tangible benefits. Moreover, in the paper by V. Nedadayev it was correctly noted that they are especially needed in training beginning air controllers.

Finally, the question of certifying the air controller and his assistants to perform their duties after drawing at the air traffic control center is resolved. In the given case, it is necessary to operate all radio facilities at the airfield, the equipment of the air traffic control center, and aircraft in the air with crews specially trained for this purpose. Here we can clearly see how well the air controller's staff is trained, and what still needs improvement.

In the course of the discussion, many readers talked about the working conditions of the air controller, who has to receive and interpret enormous amounts of information, use it to make timely decisions and give commands. The fluidity and chaos of the situation complicates appreciably the activity of air traffic control center personnel. And the controller is nearly always limited by time. Hence the haste, nervousness and errors, and therefore the need to reduce to a minimum /50
the flow of information he does not need.

In this regard, I think, it is appropriate to raise the question of improving the equipment at the air traffic control center, and especially the controller's station. I hope that our scientific research organizations would develop an optimized version of the layout of the air traffic control center and the air controller's desk. In our opinion, the control panel should have a mechanism for representation of the air and ground situation which makes it relatively easy to evaluate them and quickly reach a sound decision. It is also desirable to draw up air traffic control center designs in conformity with standard equipment, which designs would improve the working conditions of the air control group. Moreover, it is necessary to constantly support the initiative of the personnel in equipping existing air traffic control centers and improving their operation.

Speaking of the role of the air controller in assuring flight safety, the readers have emphasized correctly the fact that he will be able to perform his functions successfully if he is exceptionally principled and exacting, and if he adheres strictly to his service

obligations. This was discussed, in particular, in the articles by P. Pshenichnikov, V. Nedadayev and others.

The air controller is responsible for the order and safety of the crews on the ground and in the air. He is the sovereign commander of all personnel at the airfield. His command is law for everyone. And the air controller who makes concessions under pressure from "high" authority renders a disservice to all. This, as a rule, leads to undesirable consequences.

To observe take into account and react to all deviations from the rules for the organization and execution of flight operations is one of the most important functions of the air controller. The more they are brought to light and analyzed, the more material is available to the commander to instruct the aviators in correct actions and prevention of errors. This, in turn, increases flight safety. Sometimes, however, not enough attention has been devoted to the question of determining the effectiveness of preventive measures in the struggle against flight prerequisites. This hampers the organization and conduct of flights and the further increase in their safety. Infractions /51 by the crews should be carefully noted in the flight log and timely measures adopted to correct them. Any error by a pilot or mechanic should be made known to all personnel and the guilty party must be held answerable.

In increasing the accountability of the air controllers for the duties entrusted to them, a huge field of activity is left to the staffs and Party organizations. They are obligated to systematically generalize, propagandize and implement progressive practice and instruct the men in their adoption. Without this it is impossible to move ahead confidently and perfect the methods of supervision of crews and improve their combat skills and flight safety.

The Party and Government value highly the military labors of Soviet aviators. Each year the best of them are rewarded with orders and medals and attain the

honorary title of honored military pilots and navigators. In response to the concern of the Party and Government, the personnel of naval aviation units and subunits are persistently perfecting their military skills. They are increasing their vigilance and readiness for the first call from the Motherland to step forward with weapons in hands to defend her sacred frontiers.

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This paper concludes discussion of the theme "The air controller and flight safety." The editors wish to express their gratitude to all officers and generals who took part in this dialogue.

Photograph - p. 50, Caption: On flight day.

MORSKOY SBORNIK, No. 2, 1972, pp. 102-107.

A BOOK ON FLEET WATCH

by Deputy Director of the Central Naval Library, Lieutenant Colonel M. Levin (Reserves)

Postal number 191011. Sadovaya Ulitsa 2, Leningrad...This is a symbol to address many sailors. Here, to the Engineer's Castle, where the Central Naval Library (CNL) is located, officers, teachers, students and cadets of Navy and Soviet Army schools come every day. They come to work in the library halls, at its catalogs and card files, to obtain needed books and periodicals, to consult with bibliographers and to familiarize themselves with the latest in political, military, naval and scientific-technical literature. At the heart of the multifaceted work of the CNL, assisting officers of the Navy in utilization of such a powerful ideological weapon is the book. /102

The Normal Working Day

1000. The first visitors cross the threshhold. Many head first of all to the exhibit of new acquisitions. Today is Thursday, and this day the books, brochures and periodicals which arrived for the last week are placed in open cases. Attention is drawn to a new, fourth edition of the textbook "The History of the Communist Party of the Soviet Union," to the book "The Great Lie About the War," which exposes bourgeois falsifiers of the history of the Second World War, to practical guides for navigators, to books on electronics and to a whole series of operational publications of scientific-technical and bibliographic information. Readers examine the new items and make notes in notebooks. Here they also make out requests.

As always requests - diversified in subject matter and in types of publications - are delivered to the check-out desk, where today Library staff employees G. Ivanova and V. Vorob'yeva are on duty. The monograph "V. I. Lenin and the Armed Forces" is given to officer V. Lobov. Readers V. Alekseyev, S. Romanov and Yu. Pitomets submit requests for military journals. Arriving from Moscow, scientific worker O. Bozrikov receives several books on naval administration and international maritime law for work in the reading room. Reader V. Mikats requested the collection "Leningraders in the Days of the Blockade." Four volumes of the "Handbook for the Emergency-Rescue Service Specialist" are given to V. Pas'ko. Many requests for books and periodicals are related to study of the resolutions of the 24th Congress of the CPSU in the course of Marxist-Leninist training of officers.

Captain 3rd Rank A. Sopotsko serves in Vladivostok. He arrived in Leningrad while on leave and came to work in the Library. Already the Pacific Fleet officer has utilized a correspondence card of the CNL for more than a year. He receives literature at his home address, but in these days he has the opportunity to find new books for himself through the catalogs on the history of exploration of the seas and oceans, and to become acquainted with rare editions.

The CNL sends literature "through space" to many reader correspondents. Thus right now senior librarian L. Orlova is preparing parcels: to O. Tkachenko, of the Black Sea Fleet, scientific works and textbooks on navigation; and to V. Prozorov of the Northern Fleet, books on higher mathematics and the theory of probability. Requests are filled from naval libraries, which receive literature for their readers on an interlibrary loan. Today books on the theory and use of gyrocompasses are being sent to the library at the Potiyskiy Officers Club. /103

During the day (it continues at the CNL until 2000) about 800 readers' requests are satisfied.

At the reference desk the bibliographer on duty, A. Rodionova, distributed 28 references in the course of the day. In order to answer one of the readers (where the history of the wreck of the Russian frigate ARKHIMED is described), it was necessary to "resurrect" two references published in 1855 and 1858. To another reader the worker recommends bibliographic indexes on submarines and ASW, and explains how to use these aids.

The bibliographic section also distributed two major written references. A bibliography on the subject "The 24th Congress of the CPSU on the Role of Scientific and Technical Progress in Creating the Material-Technical Base for Communism and Strengthenin the National Defense" is delivered to a representative of a political organ, who is preparing a theoretical conference. And a reference on "The Naval Infantry of the Capitalist Countries" is sent to the library of one of the units of the Twice-honored Red Banner Baltic Fleet.

Each person who visited the library today had the opportunity to acquaint himself with large book displays: "Technical Progress in National Defense," "Long Voyages--a School for Combat Mastery," and "Program Planning in the Development of Weapons and Technology."

Of course, one day does not reflect all facets of the activity of the Library. We shall describe some of these separately.

Through Oral and Graphic Propaganda

Literature displays are a real means of propagandizing a book. Besides the weekly exhibits of new acquisitions, thematic exhibits which are recommended are also organized. In 1971, the Library exhibited 66 thematic books. Problems raised at the 24th Congress of the CPSU, the military heritage of V. I. Lenin, the combat experience and heroism of the Great Patriotic War, the military labor of sailors under modern-day conditions, the combat and technical resources of the Fleet, the methods

of personnel training and education--these are the basic kinds of issues which determine the content of the displays.

The Library also puts up display series. To assist in the study of the resolutions of the 24th Congress of the CPSU, for example, three series, embracing 20 themes, were developed simultaneously: "Toward the Heights of the Ninth Five-Year Plan," "The Foreign Policy of the CPSU," and "Guarding the Achievements of Socialism."

Often the thematic displays are taken from the walls of the CNL to units, scientific institutions of the Navy and naval schools. Among the recently removed displays, for example, were these: "The History and Activity of the Emergency-Rescue Service of the Navy," "Problems in the Recognition of Shapes," "Calculation and Measurement of the Speed of Sound in Water," and "Sources of Scientific-Technical and Patent Information." Other means of graphic propaganda of books are also used, such as posters and stands.

Literature surveys play a fundamental role in oral propaganda. As a rule, officer specialists conduct them on general principles. They have achieved a higher scientific level of analysis of literature and a basis for recommendations. Thus in connection with the 25th anniversary of the Victory, a doctor of military sciences, Professor Captain 1st Rank I. Kozlov, did a survey of literature on the subject "Combat Operations in the Great Patriotic War." Candidate of Technical Sciences A. Narusbayev, Candidate of Technical Sciences M. Puzyrev, Captain 2nd Rank L. Shifrin and other active CNL readers presented surveys on military-technical subjects.

Sometimes library workers also conduct the surveys. Thus reserve officer I. Gass, who heads the bibliographic section of the CNL, repeatedly presented the survey "V. I. Lenin and the Navy" to seamen at Kaliningrad and to units of the Leningrad garrison. /104
Reserve officer A. Leybovich, a worker in the bibliographic section, presented the survey "Military Psychology, Military Pedagogy" at the CNL, in Severomorsk and

at a gathering of young political workers in Leningrad.

Readers Meet the Authors of Books

At the regular readers' conference at the CNL, the digest "Ships' Heroes," issued by the DOSAAF* publishing house was discussed. Among the participants in

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*DOSAAF--Volunteer Society for Cooperation with the Army, Air Force and Navy.

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the conference (there were more than 100 of them) there were also comrades whose recollections, essays and notes were included in the book. The speakers--Twice-honored Hero of the Soviet Union Rear Admiral A. Gorozhankin, Captain 1st Rank G. Silayev, Captain 2nd Rank A. Zapol'skiy, poet Vs. Azarov, and others--noted the value of the collection and its significance in the education of the young generation of seamen. In addition to this, they also pointed out significant shortcomings. The observations and suggestions of the conference participants were accepted with gratitude by the main author of the book, the writer A. Yelkin, and his editor, L. Belyayeva, who are about to work on the second edition.

This conference, held in 1971, is neither the first nor the last. CNL readers actively discussed the books of Voyenizdat,* Lenizdat,** the DOSAAF Publishing House,

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*Voyenizdat--Military Publishing House.
**Lenizdat--Leningrad Publishing House.

Sudostroyenie, Sovetskoye radio and others (in particular, "The Maritime Front," by Yu. Panteleyev; "The Northern Fleet," by A. Kozlov and V. Shlomin; the collective monograph "The Combat Record of the Soviet Navy;" the documentary vy Vs. Azarov and A. Zinachev "You Who Are

Alive, Sing About Us!;" the compendium "Our Own Ladoga;" the textbook by Yefim'yev "Basic Theory of Submarines;" and the work of a group of naval specialists "Theory of Search in Military Affairs"). CNL readers met often with editors of military journals.

At the conferences there is usually a qualified audience--admirals, officers, scientific workers, instructors from naval training schools, and Navy veterans. With an awareness of things they analyze the books, make critical remarks, and make valuable suggestions. Readers' conferences, on the one hand, facilitate the propagandization of literature and, on the other, facilitate overall improvement in the creation and publication of naval books.

Keys to Riches in Books /105

This is what we might call the bibliographic works and aids which the Library staff works to create.

There is a picturesque term to define the role of bibliographers--"pilots in literary seas." Really, without the bibliographer, how would one find his bearings in the vast truly oceanic torrent of new literature? How would one correctly select books and articles on questions under study, or bring to light little-known materials published in past years?

The CNL is the bibliographic center of the Navy. A monthly bulletin, Naval Literature, published by the Library, informs the naval reader about the newest books and articles. One can judge the content of the bulletin from the titles of the main sections: "Marxist-Leninist Teaching on War and the Army," "General Theory of Military Science: Military and Naval Art," "The History of War and Naval Art," "Armed Forces: The Navy," "Ships, Aviation and Means of Naval Combat," "Technical Means of Administration of Combat Operations, Observation and Communications," "Shiphandling, Hydrography," "Naval Geography," "Shipbuilding," and others.

Moreover, the Library distributes operational infor-

mation on new books and journal publications twice a month to interested organizations and officer readers on the subjects: "Naval Strategy and Tactics;" "Analysis of Operations;" "Surface Ships;""Submarines and ASW Warfare;" "Weapons of the Navy;""Rear Echelon Support for the Fleet;" "Ship Accidents and Emergency-Rescue Technique;" and "Naval Aviation."

One can arbitarily divide other bibliographic publications of the CNL into two groups: recommended textbooks and scientific-auxiliary subject indexes to literature.

Bibliographic aids (bibliographic lists, press reviews, leaflets), implemented in connection with the Lenin Jubilee, the 25th Anniversary of the Victory over Fascist Germany, and the 24th Congress of the CPSU, occupied an important place among the recommended aids. The series of recommended indexes "To Aid the Young Naval Officer" has been published for over a year. The last editions of this series are "Military Psychology, Military Pedagogy," "To the Leader of Political Studies," and "To the Navigator."

The bibliographic indexes of a scientific-auxiliary nature are intended for officers and specialists of the Fleet. For example, in 1971 the publications "Naval Forces of the U.S. in the Aggressive War Against the Vietnamese People," "Submarines of Foreign Fleets," and "ASW Warfare" appeared.

The active readership of the Library participates in the preparation of such special texts. Thus Yu. Tarasyuk, the compiler of the subject index of literature "Hydroacoustic Telemetry,: is a member of the CNL Council. Officer readers act in the capacity of nonstaff scientific consultants in the preparation of all recommended texts for naval specialists. With the participation of officers from one of the naval scientific institutions, the large index "The Influence of Environmental Conditions on the Technical Characteristics of Hydroacoustic Systems" was developed.

We will not enumerate all of the bibliographic publications of the CNL. We will speak only of its one major work. As a result of many years of work, Naval Literature, an index of books and articles published for 20 years after the war, was issued in 12 volumes. They contain information on 54,985 publications. It is an important reference work for naval officers, especially those who conduct scientific and propaganda work! /106

On the Bookshelves are 100,000 Volumes

Almost 700,000 books, periodicals and other publications make up the holdings of the CNL. The Library has been in existence since 1805, but only one-tenth of its holdings were collected in the prerevolutionary period. During the years of Soviet power, the former library of the Tsarist Admiralty, put in the service of the new Soviet Fleet, enriched itself several times over. After the Great Patriotic War, and particularly during the past 10-15 years, the holding of the CNL have been expanded with literature essential to the ideological-political and military training of personnel,for combat training and scientific work in the Navy. Right now the annual new literature acquisitions comprise 14-15 thousand printed units, including about 500 titles of periodic publications (of which more than 100 are in foreign languages).

It is difficult to exaggerate the scientific and practical value of the wealth of books in the library. The old part of the holdings continues to remain in the possession of the Fleet. But, of course, the latest literature is of primary importance.

A developed system of catalogs and card files, containing morethan one million cards, enables both the readers and the librarians who serve them to "see" everything that is concentrated on the shelves of the Library.

Work with the holdings and improvement of their organization is a matter of constant concern to library workers. In particular, the so-called "file copy" of

books and periodicals, which, in accordance with the basic tasks and outline of the activity of the CNL, is kept in permanent custody. First and foremost, these are publications of the Navy and all literature having a naval content. Special conditions have been provided for custody and utilization of the file copy.

There is a collection of rare and memorial publications. Thus on the Library shelves one can see first editions of Peter the Great's Naval Regulations "The Book of Regulations of the Navy Concerning Everything Which relates to Good Administration When a Ship Is At Sea," books with the autographs of Admirals I. Kruzenshtern and S. Makarov, books from the personal libraries of Marshal of the Soviet Union V. Bluecher and Admiral of the Fleet of the Soviet Union I. Isakov, and dozens of publications which have long since become a bibliographic rarity.

For Naval Libraries

In the conference hall of the CNL, leaders and workers of the libraries of naval training schools were gathered in a regular seminar on methods. The question under discussion is "On the Effectiveness of the Acquisition and Utilization of Library Holdings in Support of the Educational Process and Scientific Research." Besides library workers, staff representatives and heads of departments of schools, and representatives of the /107
staffs of directors of naval training schools are participating in the seminar. Directors of school libraries comrades S. Solodovnikov, P. Struyev and N. Shuralev report on the analysis conducted on attentiveness to educational and scientific literature among students and teachers, and on the practical conclusions reached. The reports are actively discussed by the seminar participants. After a period of some time, its materials, together with the adopted recommendations, are distributed to all training institutions of the Navy. Methods seminars are conducted in the CNL regularly. They are organized both for the educational, scientific-technical and general libraries of the Navy.

The Central Naval Library constantly renders methodological assistance to the libraries of the Navy, studies and summarizes their experience, conducts group and individual consultations, distributes methodological aids, and publishes texts for naval libraries. Immediately after the 24th Congress of the CPSU, the brochure "On the True Road, the Leninist Course" was published. It contained bibliographies to assist in propandizing the resolutions of the Congress, model themes for the series of exhibits "The Resolutions of the 24th Congress of the CPSU Implemented" a sketch of a card file "Through the Leninist Course to Communism," and methodological advice to librarians. Prior to this similar aids were published: "V. I. Lenin and Sailors," "The Heroic Fleet of Soviet Power," and "The Leninist Komsomol and the Fleet."

With every passing year, the bond with Fleet libraries is tightened. In the course of preparation for and celebration of the Lenin Jubilee, in the period of preparation for the 24th Congress of the CPSU, and after the Congress, methods groups from the CNL visited all Fleets, as well as dozens of libraries at officers club, enlisted clubs, associations, and units of the Red Banner Northern Fleet, the Red Banner Pacific Fleet, the Red Banner Black Sea Fleet and the Twice-honored Red Banner Baltic Fleet. During the visits, joint seminars were conducted by naval library workers with the political directorates of the Fleets.

In December, 1971, directors of the libraries at officers clubs, enlisted clubs and many units in all the Fleets came to the CNL to attend an educational meeting organized by the Political Directorate of the Navy. The meeting oriented the participants in further propandization of the materials of the 24th Congress of the CPSU and in further assisting personnel in the effort to carry out the resolutions of the Congress.

Difficulties and Concerns

The CNL, of course, has many difficulties, defects

and still unfinished tasks. Thus the book holdings and bibliographic reference base are not yet being fully utilized by scientific institutions and naval training schools, Fleet libraries and officer readers.Interlibrary loans and correspondence cards have still not received sufficiently broad development. Many publications of the CNL often do not reach officer personnel and even libraries. The system of centralized distribution of such materials employed in the Fleets "misfires," and often they lie around for a long time in warehouses.

There are frequent instances in which publications issued in the Fleets are not being sent to the CNL. The procedure established under current guidelines is not always and not everywhere observed, i.e.: two copies of all Navy publications should be sent to the CNL. Elimination of the indicated shortcomings will help the Library to operate more effectively and satisfy more fully the seamen's requests.

Photograph captions, p. 104: Engineer's Castle, where the Central Naval Library is located.

p. 105: At the catalogs in the reference section.

p. 106: At the exhibit "V. I. Lenin and the Navy."

KRAY AND FLEET

by Secretary of the Primorksiy Kray Committee

A. Gul'chenko

The minesweeper PRIMORSKIY KOMSOMOLETS had returned from a long cruise. The mission assigned by the /10
command had been fulfilled, as always, with a high rating. On the bridge, the emblems of military valor glisten. For three consecutive years, the crew of the minesweeper had won the Navy prize in minesweeping competition, and the prize cup was permanently retired in the ship. Since 1970, the minesweeper had been designated outstanding. The ship's entire crew had become class specialists during the pre-Congress competition. However, the sailors were not content with their achievements. After the cruise, an open Party meeting was convened. Even the workers of Primorskiy Kray took part in its work. Among them were veteran of the Civil War A. Klimko, a Communist since 1920; reserve captain V. Dimov, a participant of the Great Patriotic War; and P. Shugurov, delegate to the XXIV Congress of the Communist Party of the Soviet union and leader of the all-round construction team. Discussion centered on increasing the readiness of the Party organization.

At the meeting, female worker M. Romanova of the "Rassvet" production enterprise addressed the meeting. "Dear Comrades! My sons! I feel that I can address you in that manner since my son Boris serves with you. To you, youth who have grown to manhood, we, mothers, have entrusted the most sacred thing in the world -- the Motherland. Protect her! The land of our grandfathers and great-grandfathers is sacred. For her security, for her future, for you and us, they laid down their precious lives -- those fearless knights of the native land."

And there are many similar examples when the sailors discuss their concern in joint meetings with representatives of the workers. In turn, Kray enterprises and organizations invite representatives of combatants, units and subunits of the Fleet to their Party and production meetings. This attests to the close friendship between

the people of Primorskiy Kray and the fighting men of the Pacific Fleet, a friendship which sprang up even in the early days of consolidation of Soviet power in the Far East. Those of the older generation well remember how in March 1823 residents of Vladivostok welcomed with bread and salt ADMIRAL ZAVOYKO, the first ship of the Soviet fleet to reach the shores of the Pacific. The ship was lated renamed KRASNYY VYMPEL.

In March 1932, the Far East Kray Committee of the Komsomol adopted a resolution concerning patronage over sailors of the Pacific Fleet. "Our 200 best men to the Fleet", the Komsomol summoned. 400 men turned up at the ships. Later, thousands of Communists and Komsomol members joined them.

In the years of the first five-year plans, workers of the Prinorskiy Kray reconstructed warships and erected coastal defense facilities along with the men of the Pacific Fleet. By their joint efforts, which the entire population supported, a first-class fleet -- a reliable guardian of Socialism in the Pacific Ocean -- was created. And in the threatening years of the Great Patriotic War, detachments of volunteers left the shores of the Pacific for the front, and many warships, having barely completed an around-the-world voyage, were transferred to the operating fleets. "Everything for the front!" "Everything for victory!" was the slogan under which all inhabitants of the Kray worked. Victory over Hitler's Germany and Imperial Japan forged the Party, the people, and Armed Forces into close unity. This unity grows stronger from year to year.

On the eve of the celebration of the 20th anniversary of the victory over Fascist Germany, the Presidium of the Supreme Soviet of the USSR awarded the Pacific Fleet the Order of the Red Banner for outstanding services to the Motherland. On the day this high award was presented, delegations from all the Oblasts and Krays in the Far East cities and settlements of Primorskiy Kray came to Vladivostok to express their love and respect to their own offspring -- The Red Banner Pacific Fleet.

Party leaders, Soviet Kray workers, veterans of labor /11

veterans of the Civil War and Great Patriotic War, production leaders, Komsomol workers and school children are frequently guests of Navymen. The men of the Pacific Fleet tell about their professional activities and about how Primorskiy Kray has been transformed into the largest area of new construction activity in the country during the years of Soviet power, the invincible outpost of Socialism in the Pacific area. Such branches of industry as ore mining, coal, machine-building and metal-working, forestry and lumbering, chemical and light industry, food processing and others have been created.

At present, about 30% of the population of the Far East resides in the Kray, as well as 38% of industrial production and a third of the total land under cultivation. Almost half of the fish and marine products are obtained in the Far East basin. About 80% of total cargo turnover in the Far East is handled in the Kray. Merchant vessels of the Far East maritime fleet call annually at over 200 ports in 42 countries.

The Party and Government issued a decree to create a Far East scientific center of the USSR Academy of Sciences, thus imparting enormous significance to the development of productive resources and most rapid exploration of the riches of the Far East. Today the Kray has 37 scientific institutions employing about 4000 workers, about 1000 general education schools and schools for working youth, 41 professional-technical institutions, 29 technical schools and 10 higher educational institutions.

About 10,000 kilometers separate our Kray from the central regions of the country. But despite this great distance, the Kray residents don't feel separated from the mainstream of national life. The journey from Moscow to Vladivostok by rail express takes about 7 days, while jet airliners require 10-11 hours for the trip. Kray residents watch television programs from Moscow via the "Molniya-1" communications satellite. The Kray has five theaters, two circuses, a musical philharmonic symphony, about 700 clubs and Palaces of Culture, 952 libraries and more than 1000 film exhibits. In 1940, nine days were required for the residents of the Kray to receive newspapers

from the central regions, but today the newspapers arrive on the day of their publication.

Kray inhabitants, like all workers of the Motherland, are inspired by the resolutions of the XXIV Congress of the Communist Party of the Soviet Union and devote all their energy to fulfillment of the tasks of the ninth five-year plan.

Serious attention is devoted to military-patriotic education of the population. At many enterprises, in institutions of higher learning, in schools, on collective farms and state farms of the Kray, museums and rooms and corners of combat glory have been established. Meetings between youth and soldiers and seamen who are veterans of war and labor are systematically conducted. Sport and military sport societies have also been established, lectures and discussions are held on patriotic subjects, and excursions made to places of historical interest in the Kray. /12

In the Vladivostok sailors club, for example, the periodical "Glory of the Motherland" enjoys great popularity. Here is a description of one of their recent issues. The first page, entitled "Leninist Path to Communism" was opened by K. Dobryuk, senior instructor at the G. I. Nevel'skiy School. He talked about the tasks of the new 5 year-plan. The second page was devoted to Yu. Trautman, chief architect of the city and a member of the Architects Union. He outlined the development of Vladivostok in the next few years. The last page of the periodical was a "Chronicle of the Cultural Life of the Kray Center". N. Krylov, director of the Gorkiy Kray dramatic theater, addressed the sailors. In conclusion, scenes from the motion picture spectacular, "Man the Globe", were shown.

Much is done in the Kray to prepare inductees for service in the Army and Navy. Thus, in recent years, the Vladivostok Naval Club of the All-Union Society for Cooperation with Army, Air Force, and Navy alone has prepared more than 3500 specialists for service with theFleet: divers, engine room specialists,helmsmen-signalmen, electricians, radio operators. Also during

that period, schools of the Kray acquired about 1500 members to the organization of "Young Seamen."

Komsomol organizations of the Kray, jointly with political organs of the Fleet, engage in important military-patriotic education work.

Last summer, the all-Russian scientific- practical conference concerning problems of the military-patriotic education of students in general education schools was conducted. Conference participants visited warships and attended the demonstration paramilitary manuever "Battle to Land and Assault Force."

An important form of military-patriotic education is the festive farewell ceremony for individuals being inducted into the Army and Navy. In the Pervomaisk region of Vladivostok such evenings take place under the slogan, "We are seeing you off to great things." Veterans of labor, along with participants in the revolutionary events of the Civil War and the Great Patriotic War, address warm parting words to the future soldiers. Commenorative gifts are also given to the departing inductees. /13

Work with pre-induction-age youth is well structured in the Oktyabrskiy, Pogranichniy and Anuchinsk districts and in the cities of Arsenijev, Suchan and Artem. Universities to prepare future military personnel are actively functioning there. Exercises in military preparation are conducted and norms are regularly surpassed for a curriculum entitled "Ready to Defend the Motherland."

It has become standard practice aboard ships and units of the Fleet to invite the parents of newly-inducted sailors to the military oathtaking ceremonies. Many crews maintain close ties with collectives at enterprises, schools, state farms and institutions.

Here is one example. On 9 May 1970, the residents of Vladivostok assumed patronage over the large ASW ship VLADIVOSTOK. The sailors were given the symbolic key to the city.

The second year, the City Committee of the Komsomol sent their best youth on Komsomol passes for duty aboard the patron vessel. One-fifth of all Komsomol members aboard VLADIVOSTOK come from the city for which it is named, and almost all have achieved outstanding ratings in combat and political training. At educational centers in the city competition has developed among pre-induction-age youth for the right to serve aboard the large coastal ASW vessel VLADIVOSTOK.

At every opportunity, youth delegations from the city visit the ship and sailors of the ship spend joint off-duty evenings, engage in discussions and hold meetings with production leaders, veterans of the Civil War and the Great Patriotic War, and esteemed citizens of the city.

Komsomol members aboard VLADIVOSTOK assist greatly in the military-patriotic education of youth, preparing worthy replacements for themselves. The sailors maintain ties with schools and children's clubs and work in military-technical groups and educational centers for pre-induction-age youth.

Pioneers of the city are frequent guests aboard ship. They report to the sailors about their activities. The Commanding Officer, Captain Second Rank Ye. Pechurov, is an honorary pioneer.

Patronage is assuming new forms. For example, Komsomol members aboard VLADIVOSTOK have presented the crew of the ship with three small libraries and musical instruments, and have made musical stands with photographs of the city. In addition, they have made films about the lives and everyday activities of the sailors.

On 9 May 1971 the large coastal ASW ship VLADIVOSTOK celebrated the anniversary of her patronage. At a festive meeting, representatives of the city's Komsomol organization presented memento gifts and certificates to sailors who were outstanding in combat and political training. The ship, which had been designated outstand-

ing, was awarded the Red Challenge Banner by the Kray Committee of the Komsomol. This was justly deserved by the patrons. On the eve of the XXIV Congress of the CPSU, Komsomol members of the ship reported to the Komsomol City Committee on their military activities: "...in missile firing in honor of the XXIV Congress of the CPSU we received outstanding marks, and Socialist competition was conducted successfully. Also, we achieved new successes in combat and political training and the number of class specialists and those outstanding in combat and political training increased significantly. We vow that in the future we will also strengthen our combat readiness and perfect our combat skills. With our military effort, we will hourly and daily demonstrate to the Party and the people that the formidable weapon entrusted to us is in reliable hands and that at any moment we are ready to move forward to defend the coastal borders of our beloved Motherland and multiply the combat glory of the heroes - Komsomol members of Primorskiy Kray."

At the present time, Socialist competition has developed between the large coastal ASW ship VLADIVOSTOK, the motorship VLADIVOSTOK, and the icebreaker VLADIVOSTOK of the Far East merchant fleet.

Working relations have been established between Komsomol organizations of a naval dockyard (represented by Komsomol Committee Secretary V. Golovy'tsev) and Komsomol organizations of the N-unit. The young men of the dockyard and fleet are fully striving to strengthen the combat might of the Motherland, and to master military skills. Komsomol /14
workers, committees and bureaus of the Komsomol unit and the dockyard regularly discuss questions of joint Komsomol work and exchange experience.

The All-Union Leninist Examination is proceeding in an atmosphere of great activity on the part of Komsomol members and youth from the ships and dockyard. The Leninist lesson "All that the people have created must be reliably protected," and the thematic performance "We are here at the East Coast in answer to the call of the country," which took place in October, have left a visable mark.

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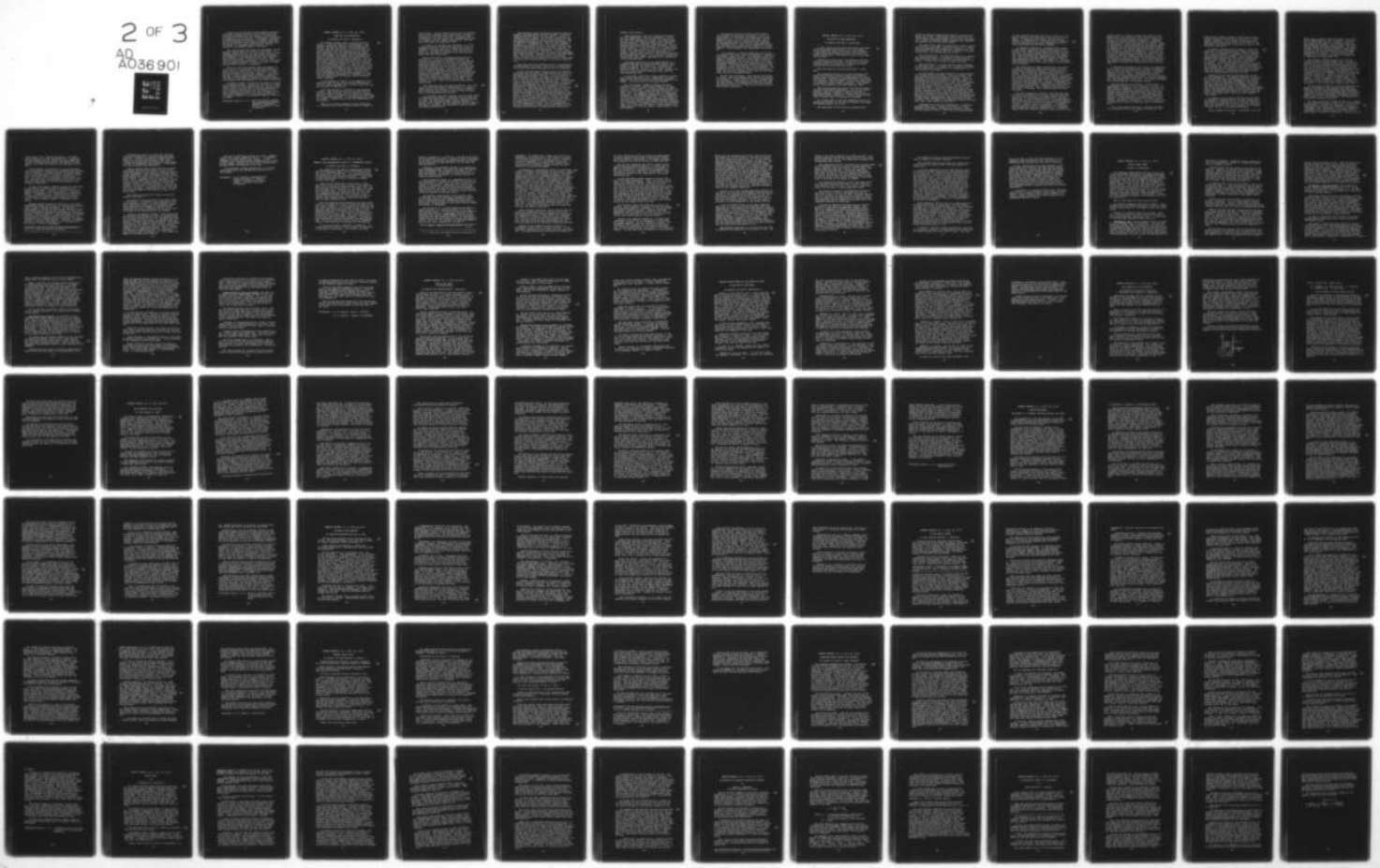

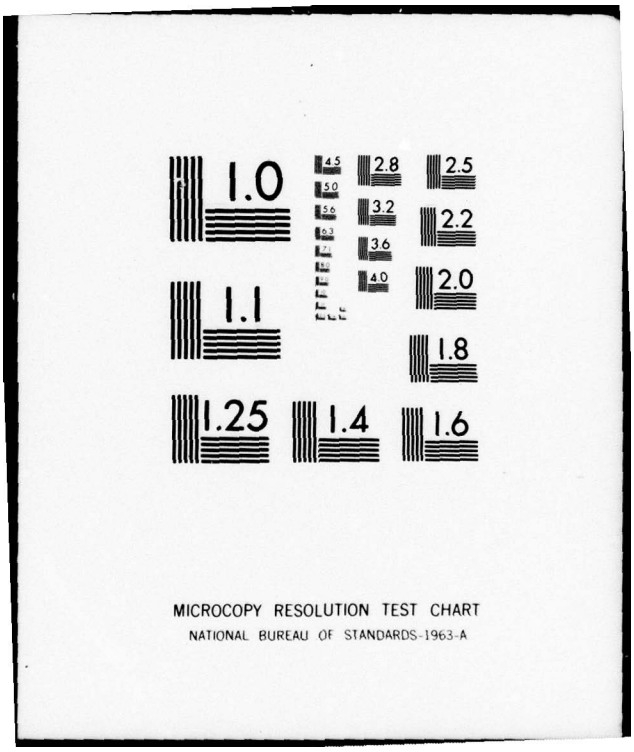
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Strong ties of patronage between Komsomol organizations help soldiers and men of the Pacific Fleet who have been discharged into the reserve to consolidate in factories. As a rule, all of them quickly assimilate and become production leaders. For example, outstanding Navy Specialist First Class N. Dubasov, petty officer of the reserve, quickly mastered his specialty and is working in a Communist labor brigade. He was elected to the Komsomol Bureau of the shop.

Ties of patronage facilitate the development of competition aboard ships and in units of the fleet. All Komsomol organizations of the Fleet battle for the honor of possessing of the Red Challenge Banner Primorskiy Kray Committe of the Komsomol for the "best submarine," "best surface vessel," "best aviation unit," "best military construction detachment." Thus the avant garde role of Komsomol members in fulfilling tasks in combat and political training is increasing.

Workers of the Kray sacredly honor the memory of heros who fell in the battle for the establishment of Soviet power in the Far East, and soldiers who fought during the Great Patriotic War. Each year, on 9 May -- the Day of Victory over Fascist Germany -- traditional meetings, festive rededication and honor ceremonies are held in Valadivostok in memory of those who heroically defended the achievements of the October Revolution.

Friendship between the Kray and the Fleet is continually growing stronger. Workers of the Kray will henceforth continue to walk hand-in-hand with the men of the Pacific Fleet along the road to building Communism and will vigilantly stand watch over the borders of the Soviet Motherland and devote all their strength to the most rapid implementation of the historic decisions of the XXIV Congress of the domestic Communist Party of the USSR.

Photograph caption, p. 11: Open Party meeting aboard the outstanding minesweeper PRIMORSKIY KOMSOMOLETS. Captain-Lieutenant I. Rybin is speaking.

MORSKOY SBORNIK, No. 3, 1972, pp. 48-50

RANK HAS ITS OBLIGATIONS

by Captain 1st Rank A. Mozheykin

We returned to base after a long and difficult cruise. /48 In the last days the conversations in the wardroom frequently turned to the forthcoming rest period. And this was natural; the men deserved it. I understood that the strain of the cruise life had begun to abate, that now, opposite our own shores, with competition for the Navy Championship behind, and while someone else besides our crew defended the honor of the Navy, the tension which characterized training during the cruise cooled somewhat. But even under these conditions planned training took its normal course, and any trouble, even the most insignificant, was immediately rectified. The crew continued to live with a single desire: to make the year of the 24th CPSU Congress indeed a year of outstanding training and service, to complete this cruise successfully and be prepared to go to sea again. Officers and Party and Komsomol activists were concerned not only with the faultless maintenance of equipment but also with the combat spirit of the men, their continued combat readiness.

It was pleasant to report to the commander of the formation that the test of the sea had been passed, that all combat equipment was in working order and that the crew was in good spirits.

A new task awaited us literally on the threshold of home. Some of the men had not even been able to stay with their families, and the navigator is again plotting a course, equipment is turned on and the ship's log is clicking regularly. We are searching for a lurking "enemy." Competition for the Navy Championship is in progress.

There was no time to prepare for the competition on a cruise at sea, where one must fulfill a number of

varied tasks. But the ranking of the ship as outstanding, victor of several prize competitions, obliged us to pass this test with honor also. The search went successfully. We won a prize for outstanding work and, in a "duel" with the "enemy" defeated him. Two more stars decorated the submarine's sail.

In order to go forward with confidence, it is absolutely necessary to look back from time to time, to comprehend what was done and to expose the causes of failures. Although the history of our ship is still brief, one can speak of several rules and traditions which have been established.

What we were able to accomplish mainly was uniform results. Each year new memorable pages are entered in the history of the boat. Thus in 1968 the crew was awarded the C-inC Navy Prize in Engineering Department competition, and in 1969 was awarded the C-inC Navy Prize for Firing Accuracy. 1970 was a particularly memorable year. For successful completion of the tasks of the"Okean" Exercises and for second place in search competition, the boat was declared outstanding and awarded the Lenin Jubilee Certificate of the Central Committee, Communist Party of the Soviet Union, the Council of Ministers of the USSR and the Presidium of the Supreme Soviet of the USSR. And finally, lin 1971, the Cin-in-C Navy Prizes already noted above.

This uniformity does not seem accidental. It is the result of the high sense of responsibility of seamen, petty officers and officers for the state of affairs in their sections, their drive to fulfill their military duty to the Motherland with dignity. /49

In evaluating the ship's progress, we all recall kindly those who have moved on, those who laid the basis for the crew: the former Executive Officer, Captain 2nd Rank A. Pylev; the Department Heads, Captains 2nd Rank V. Sadovyy and M. Guskin; and the Political Officer, Captain 2nd Rank A. Miroshkin, who succeeded in greatly advancing Party-political work.

The navigator, Captain-Lieutenant Yevgeniy Ivanovich Gorenko, was accepted by the Naval Academy. He had already settled his affairs and his family literally was sitting on their luggage. But Gorenko learned that the ship would be putting to sea for firing exercises. And he immediately postponed his departure and requested to go with us. I dissuaded him. For, you see, another navigator had already arrived in his place and the ship could be detained at sea for a long time. However, the desire of this captain-lieutenant was so strong that I was forced to say to him, "very well." On that cruise, Gorenko worked especially well and taught his replacement many useful lessons. Indeed it could not have been otherwise. You see, from the first days of his service Gorenko lived for the interests of the ship. Three years in a row he was elected secretary of the Party organization.

One could cite many examples of such a conscientious attitude toward one's duty. And this is the best proof of the fact that great achievements are not accidental.

At any time the seamen, petty officers and officers know their job and strive to subordinate every effort to accomplish the assigned objective. I want to return to the championship search. Of course the news that we were to compete for the prize came as a great surprise to us. But the surprise was a pleasant one. We had fought from the beginning of the year for the right to participate in the championships. And the results of training indicated persuasively that such confidence could be /50
given to us. Therefore, active preparation for the competitions was also undertaken on that cruise of which we spoke. Naturally, the sonarmen trained most of all. Other leading specialists also prepared themselves strenuously. It became a tradition on the ship that sonarmen were an entirely first-class team. Such was the case also in 1971, although the group was largely replaced with new personnel at the beginning of the year. We had to concentrate training and make it more individual. Socialist competition helped. And in commemoration of the 54th Anniversary of the Great October Revolution all sonarmen fulfilled their obligations and received the

highest class rating.

Other Departments were also preparing diligently for the competitions. We were confronted, in fact, not only with detecting the "enemy" and tracking him but also with carrying out attacks and taking damage control measures. Technical conferences, seminars and competitions by specialty were organized. The sea became a good school for advancing the tactical skill of the officers. I tried to "enact," in training exercises, each interesting situation which arose on the cruise. With the help of CIC the conditions of a specific episode were recreated. The officers maneuvered and evaded the "enemy." In conclusion, I myself explained why, under these conditions one or another decision was being made.

Successful resolution of any tasks depends on a complete knowledge of combat equipment and the ship's systems by the men who operate it. The modern submarine is complex. To get to know it down to the smallest screw, as they say, is not easy. However, for us it is a rule that each submariner must know the ship exceedingly well.

On the boat, these days we have created an intolerance toward complacency, and, remembering to instill pride in the ship, we strive to have each submariner remember: you do not rest on your past laurels.

The Party Bureau, headed by Captain 3rd Rank-Engineer N. Doronin, devotes much attention to questions of combat training. Officer leaders are heard regularly at meetings. These reports are planned in advance, and not in connection with some deficiencies in their work. The Komsomol organization is a dependable assistant to the Commanding Officer and the Communists in the training of true submariners. It has become the norm that all candidates pass class-specialty examinations and that seamen be authorized to perform independent maintenance of equipment earlier than the prescribed time. Up to the very last day of service aboard ship, seamen and petty officers display a good example to new crew members.

Our crew was one of the first to move toward a high standard in underwater navigation. But it is unattainable if the sailors are improperly oriented toward the ship. From the first days after arrival aboard the boat they are schooled in naval culture. In the beginning they are given the most elementary but important order: never touch a mechanism, assignment or operating instructions with which you are unfamiliar. Then gradually the requirements are expanded.

It is pleasant to observe submariners grow literally before one's eyes. Senior Lieutenant A. Kudryavkin has become a mature officer. The department which he heads is composed entirely of first-class "specialists." Everyone is pleased with the way the Head of the Engineering Department works with the skill of an expert. Our Gunnery Department is also called the best in the formation. It has performed all firing exercises with outstanding marks. This success is not accidental. The foundation was laid ashore. Before each firing exercise, the men drill strenuously and long and they pass tests only with outstanding marks.

The men grow noticeably. They mature from cruise to cruise. The group becomes more and more solidified and congenial. We must fulfill crucial, complex tasks on long cruises. The ranking of outstanding ship abd the high tribute of the Motherland--the Lenin Jubilee Certificate--oblige us to study even more persistently and to serve vigilantly.

MORSKOY SBORNIK, No. 3, 1972, pp. 51-54.

THE UNITY OF THE COLLECTIVE

by Captain 1st Rank A. Koval'chuk

At sea a storm of such force raged that even under water the seamen became aware of it. But nothing could subdue the spirit of the crew of the submarine. A long cruise was completed and all tasks were fulfilled successfully. The course was set to take them back to base. /51

Despite the raging storm, the submarine surfaced. Soon the order was received: proceed to the bay and perform preventive maintenance, replenish with provisions and fuel and again put to sea.

The time frame was fantastically short - three days.

The Commanding Officer of the ship announced the order over the public address system. The Political Officer made the rounds of the compartments and talked with the men. They put together a plan for repair work and conducted a Party meeting: "The role of Communists in restoring a ship's combat readiness." They placed active Party members in the most important areas.

Work continued day and night at the battle stations. The men did everything prescribed. Four of the petty officers, under the command of Captain 3rd Rank - Engineer Komonyuk, replaced a bearing (usually this is done under factory conditions). The men worked at full force, without letup, to the point of fatigue.

At a fixed point in time the Commanding Officer reported the readiness of the ship to continue the voyage. The submarine again put to sea.

The importance of fulfilling the assigned task

united the team and enhanced the physical resources and morale of the men. Each officer, petty officer and unrated seaman clearly understood that his work, was necessary in order to reinforce combat readiness and safeguard the peaceful work of the Soviet people.

The crew of this ship is closely knit, always successfully fulfills any tasks. Here the words of V. I. Lenin are well understood and implemented: "inculcate into the consciousness, the habits, and the lifestyle of the masses the rule: All for One and One for All..."

The unification of a military collective is a complex and laborious process. It consists of many elements, which basically consist of training and education of personnel. I would like to dwell on several of them.

The main question, on which success largely depends, is individual work. It enables one to examine more deeply the weaknesses and strengths of a subordinate, to find the key to his heart.

In this regard, the work experience of many progressive officers merits attention. Take, for example, subunit commander Captain 3rd Rank V. Manokhin. He is a demanding, sensitive and thoughtful teacher. Above all, he endeavors to find and develop in unrated seamen and petty officers the best that's in them. And his approach to the men is not the same, does not follow a pattern. Let us say Petty Officer 1st Class A. Gertsiya has committed an offense. He did not immediately curse and rebuke him, but in conversation with the seaman he would almost inadvertently say: "At home certainly they think you are a disciplined serviceman and they impatiently await your discharge, but you have violated regulations and because of this you are given time to see your relatives." "I then deeply contemplated my crime the petty officer recalled, "and the words of my Commanding Officer were not only right, they reached my very soul."

In preparing to talk with subordinates. V. Manokhin considers every word. Because of this he is always persuasive and evokes an appropriate response. Captain 3rd Rank Manokhin seeks to evoke from the unrated seaman

or petty officer the desire not only to serve him, but also to share his thoughts and to open his soul, so to speak. In teaching an individual, he uses various methods to influence him. In the process, he consults /52 with the secretary of the Party organization, and he seeks assistance from the ship's command.

In forming a collective, a differentiated approach to the various categories of servicemen plays an important role. Here it is especially necessary to share the work, with young seamen. When they arrive aboard ship, many of them do not immediately join the collective. The first time they painfully endure separation from relative and friends they get homesick. Some of them experience "lost hope": the former, not altogether true representatives of the naval service, do not correspond to reality.

The strict pace of combat training and the burdens of service demand from them intensive effort and restructuring of habitual behavior. Everyone adjusts to service life differently, depending upon individual traits. This is why from the very beginning it is necessary to pay special attention to young seamen, repeatedly and thoroughly explaining the social value of military service, and to acquainting them with the demands which will be made of them on board ship. Here it is necessary to teach the life experience of servicemen, character traits, abilities and work habits. Indeed we know that a man with strong character, who is animated and sociable, and not afraid of hardship, more readily adjusts to a new situation.

The crew successfully fulfills tasks when each one efficiently performs at his station, realizes his place in the overall structure, and senses support from his superiors. To the Commanding Officer it is important to detect peculiarities in the work of a particular specialist, and to create for him the conditions for perfection of skill. Take the work of a sonarman. It requires careful attention, speed of perception and orientation, and a heightened sense of responsibility. A sonarman spends much time following flashing lines and dots on the

display screen, in order to detect the target at the proper time. The long watch causes fatigue, which affects his speed and accuracy of reaction. Taking all of this into account Captain-Lieutenant V. Burtyshev constantly looked after the training of sonarmen. Here is one example. At the beginning of his service, Seaman N. Veselkin was distracted and detected targets badly. It appeared that he did not have the aptitude to master his specialty. The officer bagan to give more time to him, to help him master the profession. He helped him to develop attentiveness, quickness of thought and the ability to mobilize himself to directly track a target. In addition to this, he advised the subordinate how to work without unnecessary strain and to evenly distribute his effort while standing watch. All of this enabled the seaman to develop the necessary qualities and abilities.

A characteristic feature of the work of A. Burtyshev is his ability to approach a man: to show confidence in one, to fascinate another with technology, to increase exactitude on the part of a third, and for a fourth to establish control. Quiet, self-possessed and even-tempered, he is demanding and careful. Not one subordinate's blunder remains unnoticed nor one mistake uncorrected. They respect him in the crew. It is not by accident that he was selected for the Party Bureau.

The main quality of an officer, in facilitating consolidation of the military collective, is tact. The great Russian pedagogue, K. D. Ushinskiy, said that in the work of an educator, seriousness must prevail, permitting jokes; tenderness without pretense, fairness without faultfinding, kindness without weakness, order without pedantism and, above all, constant thoughtful activity. Timely approval or censure expressed by the officer, the correct intonation of the voice, a good gesture, confidence in his action - all are various ways of showing tact, which in education play a significant role.

This is how Captain 3rd Rank V. Kosobokov proceeds. He is secretary of the Party Bureau of the ship. He

knows how to tactfully prompt an experienced officer, warrant officer and young seaman how to act in a particular situation. It is not by accident that they come to him for advice and listen to his opinion. The department which he heads is the best not only on the ship but in the force.

To create a strong collective means to fight for every man, to react correctly to blunders and not to hurry into an evaluation of people. Once it happened that a sailor stumbled in something or other or did not get along with his comrades. Several senior officers, without investigating the causes, immediately threw up their hands: they say he is incorrigible, an egotist. Such was the case with Seaman Ye. Kholstinin. He was unsociable and had a poor knowledge of his specialty. Several petty officers considered him hopeless, and they offered to draft him off the ship. They lost faith in his powers and the seaman withdrew from the collective. He became indifferent to everything and things became even worse for him. /53

Secretary of the Party Bureau Kosobokov noticed this and intervened. In repeated talks with Kholstinin, he realized that there were possibilities of getting him on the right road, and he managed to find an approach to him - he stressed self-respect. The Captain 3rd rank discussed this with the Commanding Officer and Petty Officer Kholstinin. The seaman recovered his spirits and set about mastering his specialty with energy, and in time demonstrated that he was no worse than the others. He passed an examination for senior specialist, then a proficiency exam. Now he can even replace a team leader.

Of course, not all officers possess the experience of working with subordinates to the same degree, but particularly in matters such as uniting the collective. But ther's no great harm in this. The main thing for them, and especially the young officers, is to attempt to master the art of the educator-pedagogue.

Group commander Lieutenant V. Ryazantsev, arriving

aboard ship, zealously immersed himself in his work, but he endeavored to do it all himself. Naturally this could not be reported. Gradually things deteriorated in the group. The lieutenant lost heart, and he stopped reacting to deficiencies. The Commanding Officer of the ship helped the young officer in time, as did his Political Officer. They taught him how to rely on petty officers and the Komsomol organization in his work. The situation at once changed for the better. Now they are recommending V. Ryazantsev for department head.

For vistory in modern battle, every military collective ought to be well-organized. In order to achieve this, the unrated seamen, petty officers and officers should be embued with high Communist morality, an awareness by each of his responsibility for the fate of the Motherland, a deep understanding of the tasks delegated by the Party to the Armed Forces. It is necessary that an atmosphere of friendship and comradeship, mutual gain, concern and help be created in military collectives. Among our people there is a saying: A friend in need is a friend indeed. The service is full of examples in which our seamen are the first to rush to the aid of those in trouble, and frequently in the process they achieve great feats.

In uniting the collective, of great importance are massive arrangements, well prepared and organized. Thematic evenings are continuously conducted aboard many ships on the themes "Friendship and Comradeship - a glorious tradition of Soviet serviceman," "The moral makeup of the Soviet serviceman, and thedebates What does it mean to be a true friend?," and "Friendship is friendship - service is service."

Not long ago, aboard a submarine there was a debate on the subject "What does it mean to be a true friend?" Such questions as these were discussed: who can be considered a true friend and comrade; the concepts of "Friendship" and "Comradeship"; the mutual demands of friendship; how to understand the principle of the moral code of a builder of Communism: "One for all and /54

all for one," etc. Eighteen men spoke. The seamen spoke ardently about what disturbed them. Permeating all the speeches was the thought that the present generation of seamen should emulate the example of their fathers, who fought the enemy in the grim years of the war.

The friendship of servicemen of various nationalities, their mutual assistance in overcoming difficulties, and the perfection of combat mastery are highly significant in welding together a military collective. Creating in the collectives a condition of mutual gain - this is the main task of commanders and political workers. Now this work is more necessary than ever to revitalize preparation for the 50th anniversary of the founding of the USSR.

On one of the ships a thematic evening was conducted on the subject "Friendship and brotherhood of the peoples of the USSR - a source of invincibility of the Soviet Armed Forces." Many participated: A Georgian Seaman, G. Kokoroskeriya; a Ukranian, Petty Officer 2nd Class I. Torbenko; an Uzbek, Petty Officer 1st Class N. Duymetov; a Lithuanian, Petty Officer 2nd Class I. Lusis; a White Russian, Seaman V. Aleshkevich, and others.

Vigorous speeches helped the officers to know their subordinates better and to take into account the peculiarities of their national psychology. For example, a young seaman, V. Vartanian, also wished very much to talk about sunny Armenia and national customs, but could not do this because he possessed a weak command of the Russian language. Warrant Officer P. Petrosyan began in his free time to take a systematic interest in the seaman. He accustomed him to reading Russian literature. Vartanyan learned to read and speak Russian. This made it possible for him to actively participate in all activities conducted and to become an Otlichnik.*

*Otlichnik - One who has been declared outstanding by his CO in combat and political training.

On board ship there is a bulky file entitled "Letters from parents of unrated seamen and petty officers." Fathers and mothers of seamen discuss their life and the grim war years, share their thoughts and advice and instructions to their sons. A lively correspondence aids officers in educational work and in uniting the collective.

Once an evening program was conducted, entitled "The combat record of our fathers," in which the seamen discussed how their fathers fought the enemies of the Motherland. That evening many learned that Sergey Semenovich Fionin, the father of their comrade, Petty Officer 1st Class Fionin was a Hero of the Soviet Union. Commander of a gun detachment, he took part in the battle at Kursk Bulge, and the Dnieper crossing, where he displayed heroism, bravery and courage, and was cited for high honors. The son was worthy of the father, is outstanding in military and political training, a specialist 1st class, and soon will become a member of the Communist Party of the Soviet Union.

This evening program still further united the seamen of the ship.

The series of radio programs on the theme "Youth of the fathers - an example to the generations" had great educational value. In these broadcasts there were discussions with parents of servicemen whose lives and work are an example of service to the Motherland, and also a discussion of how their children inherited the combat glory of the fathers.

Strong is the family of seamen. Long cruises and the successful fulfillment by crews of assigned tasks are the best confirmation of that. Friendly feelings are preserved for a long time. In transferring to the Reserve, unrated seamen and petty officers thank the officers for their training and education. For example, Petty Officer 1st Class A. Gorba', having become a Communist while in military service, said, in bidding farewell to his commanders recently: "Thank you for the education, comrade officers. On board ship I felt and knew what a collective is. I will always remember our friendly naval family."

And here is what Petty Officer 1st Class I. Romanov wrote to his former Commanding Officer: "I frequently remember our ship and the ocean voyages. It was difficult, but the difficulties strengthened us and made us real seamen. Therein lies your merit, comrade Commanding Officer and officers of the ship."

It is possible, without exaggeration, to say that these words sum up the thoughts and feelings of all our Navymen.

Photograph - p. 53, Caption: Laboratory Head Captain-Lieutenant V. Zezegov conducts an exercise with Senior Seaman V. Yakushev and Seaman A. Gladkikh.

MORSKOY SBORNIK, No. 3, 1972, pp. 55-58

ITEMS ON THE BUSINESSLIKE NATURE OF A COMMANDING OFFICER

by Captain 2nd Rank R. Pisarskiy

At a seminar at the school of progressive methods, /55 the discussion got around to the effectiveness of the work of a Commanding Officer -- i.e., his efficiency. The question is a painful one, and therefore the seminar participants had a heated discussion. I would like to begin my discussion with an instructive example cited at that time.

There are two submarines, side by side, of the same class, which are literally twins in all respects. They are also operating under the same conditions. But the successes of the crews are not the same: one leads and the other lags. It cannot be said, however, that this Commanding Officer works more and that one less. The Commanding Officers and other officers of both vessels work long and hard. In the second vessel the officers even complain rather frequently that they have no time to stop and rest.

What distinguishes these submarines and what differences can be noted if we look a little more deeply into the state of affairs? In the progressive vessel (by the way, until recently it also failed to excel and has only attained these successes since the arrival of a new Commanding Officer), a distinct daily organization of duties strikes the eye. Here there is no harassment of personnel and no nervousness. Each knows what he must do and when, what and to whom to report. In general, a good businesslike working arrangement has been created here. And this stems first of all from the Commanding Officer, whose own work is sensible and well-defined.

In the second vessel everything is different. Although plans are drawn up, the net effect of orders not in the plans is very great. As a result, the basic

effort is misspent or, as they say, "the men do not work, but only obviate criticism." Because of this, provisions of the plans, having been prepared hurriedly and absorbing a great deal of time and effort, do not yield the desired results. . .

Naturally, the Commanding Officer of a warship has many responsibilities. His tasks are large and complex. Just to enumerate them occupies 52 articles in the Navy Regulations. If he does not learn discipline and does not organize his efforts, it is easy for him to lapse into vacillation.

The businesslike nature of a Commanding Officer is also understood to include his ability to carry out his manifold duties in such a way that there is tight discipline on the vessel. There must be a strict, prescribed procedure, so that each man knows thoroughly what he must do now and how, and what will occupy him tomorrow and the day after, so that all combat training tasks are executed in the best manner.

The specific organization of duty aboard a ship is naturally up to the individual Commanding Officer. To this end, however, each Commanding Officer must make a substantial effort, and develop creativity and initiative. He must learn to plan ahead and must master the science of management.

For all of us, V. I. Lenin serves as the great example and model of an organized worker with a true businesslike nature. His instructions on this question are invaluable as well. Inter alia, Vladimir Il'ich demanded that leaders occupy themselves with vigorous organizational work among the masses. He castigated superficiality and the tendency to shrink from responsibility. He wrote: "The primary and immediate slogan is practicality and a businesslike attitude."*

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*V. I. Lenin, "Complete Collected Works," vol. 36 p. 159

V. I. Lenin also developed the basic principles of

management. He showed that a leader can fulfill his responsibilities successfully only through a complete and thorough accounting of the details of a situation, a thorough knowledge of his assigned mission, the ability to determine the primary link, objectivity in the evaluation of results, constant study and implementation of progressive methods.

Consequently, a businesslike nature is unthinkable /56 without a profound understanding of the mission, without a sense of novelty, and without initiative and independence on the part of the Commanding Officer. Only by independently solving a particular problem can a person possess the ability to work. This means that a person who is to serve in a position as responsible as that of a Commanding Officer must be chosen very carefully. But no matter how early they entrust an officer with a command, his superiors must be very cautious about interfering in his affairs. After all, Commanding Officers are basically knowledgeable people who are not novices in the Fleet. As senior assistants, they pass through a school of command. Naturally, however, everything will not go smoothly at first in their new roles. And if they are not given independence from the very beginning, if they are not watched over and trained to work with prompting, with caution, then, whether we wish it or not, they will not become capable Commanding Officers for a long time. The officer begins to lose faith in his ability. He begins to fear taking the initiative and will wait for orders from above.

Under everyday conditions, senior officers must obviously be guided more fully by Article 102 of the Navy Regulations and carefully regard the authority of the Commanding Officer. A good school for a Commanding Officer is a detailed analysis of his activities for a certain period of time, encouragement of initiative, analysis of errors and acquaintance with the practical experience of outstanding Commanding Officers.

Success of the Commanding Officer himself is unthinkable without clear, reasoned planning. A plan introduces organization into combat and political training. It creates discipline and directs the energy of

the crew toward the timely and superior accomplishment of their assigned tasks, makes it possible to concentrate the efforts of personnel in the proper direction and coordinate the work of the men in space and time.

But the plan should be kept within reason and not loaded down with secondary details. A strict fulfillment of requirements: a certain action is planned, it must be carried out at precisely the designated time and must be done well. The strict fulfillment of this requirement teaches the men organization, efficiency and punctuality.

On the progressive vessel referred to above they plan their work thoughtfully. Here, at the end of each month, the Commanding Officer, along with the Executive Officer and Political Officer, carefully analyzes fulfillment of the plans for combat and political training, and the work of the Party and Komsomol organizations. Then, based on the tasks confronting the vessel, they plan the basic activities for the following month. During a period of two or three days the plans are refined and supplemented by department heads, who have finished checking the execution of their own monthly plans by this time. This planning procedure makes it possible to make the plans more purposeful and take into account more fully the capabilities of the men.

But any plan, even a very good one, is only a beginning. The attainment of success requires persistent and painstaking effort to implement it, and here management plays a substantial role. Properly exercised management makes it possible to know the true state of affairs at all times and to focus the attention of the crew on the timely solution of basic problems. /57

Recently the submarine worked out a problem which culminated in the firing of torpedoes at a detachment of "enemy" warships. It was a difficult problem. The Commanding Officer helped the officers to coordinate the time of the completion of the primary operations and to achieve more precise utilization of the remaining reserve. He then made daily refinements in the execution

of the plan and exercised qualitative control over the performance of various actions. From the very beginning, this taught his subordinates to reflect thoughtfully on the training and to analyze its results. The Commanding Officer himself carefully reviewed the experience acquired in preparing for previous torpedo firings and studied the quality of execution of firings by his own submarine, as well as by other vessels. He paid particular attention to the training of the crews of the Attack Center and Combat Information Center, since these teams were not yet sufficiently developed, and since the outcome of the attack largely depended upon their coordinated and accurate work. The primary training method was drills, which were conducted in an organized manner. The tactical problems required all personnel at their stations to perform efficiently and to display reasonable initiative. Gradually the men acquired the necessary skills and operated confidently uner the most complex conditions.

The work of all the officers and petty officers of the vessel and the Party and Komsomol organizations was devoted to the preparation for execution of the tasks. Supplementary exercises and drills were planned for many battle stations, and the time required to fulfill the norms was tested regularly. All of this made it possible to be well-prepared for the combat exercise.

It was a different scene on the other submarine. They also had a plan and training sessions were held frequently in the classroom, but their efforts produced fewer results. And all because in preparing and executing the plan they did not account for subsequent changes occurring on the vessel and they did not identify the primary element. As a result, all of the training was conducted without a clearly defined purpose. The drills were held irregularly, the subsequent plans did not take into account the results of each exercise, and the conditions under which the drills were conducted were far from those anticipated at sea.

The different approaches to training were not slow in affecting the operations of the vessels at sea. The

attack of the first submarine was sudden and bold. The torpedo destroyed the primary target and the crew received an outstanding rating. The second boat attacked with considerably less success.

Many Commanding Officers supplement the monthly schedule by planning their own work on a weekly and daily basis, requiring that their officers do the same. This practice merits attention. Weekly and, especially, daily plans enable an officer to utilize his working hours more rationally. And the Commanding Officer of the vessel can see what the officers are about to work on and can advise how to better accomplish a particular point of the plan if his advice is needed. /58

The systematized material of daily and weekly planning provides excellent assistance to young officers just beginning their service on the ship. These plans enable them to work in a more organized fashion.

The personal example of the Commanding Officer of the vessel helps to better understand the value of plans and learning to stick to them. By being familiar with his own plans and explaining the factors on which they are based and the organization of their execution, the Commanding Officer teaches his officers how to use systematic planning in their work.

Outstanding Commanding Officers also pay careful attention to the plans of department heads. Once during an inspection of weapons and technical equipment, the Commanding Officer noted serious errors in the operations of personnel. He called them to the attention of the Head of the Navigation Department, Senior Lieutenant Degtyarenko, and expressed an interest in knowing when the latter and his subordinates intended to investigate the causes of the deficiencies. The officer replied that a critique was planned for the following day. At the end of the designated period, however, no corrective measures had been taken. The department head was embarrassed to report that, in general, he was hardly able to conduct a critique prior to putting out to sea.

The Commanding Officer helped Degtyarenko find the time to conduct a thorough critique.

This episode served as the theme of a special discussion with the officers about the organization of their work.

It is also appropriate to say something here about the need for further regulations of the working hours of the officers. It stands to reason that today it is not necessary for them to be at their stations every day until pipe down. This is usually not dictated by the situation, and it only increases the tension of the officers. Moreover, it restricts the opportunities for warrant officers and petty officers to perform their functional duties. We often speak of the harm in replacing warrant officers and petty officers, but we ourselves sometimes create the conditions for it. When the warrant officers and petty officers carry out their functional duties to the fullest extent, the officers have more time to solve their own problems. Naturally, nothing we have said excludes -- on the contrary, it presupposes - constant leadership and effective management of the work of subordinates by the officer personnel.

Those Commanding Officers who get carried away with meetings should also be reproached. For some reason or other it is their custom to summon all of the officers, although this is frequently not necessary. And it is very bad when a conference (and I have had the occasion to attend such meetings repeatedly myself) is poorly prepared and its theme is only developed in the course of the meeting itself. Every leader must constantly remember the words of F. E. Dzerzhinskiy, who said that one should form the habit of posing the following question at the beginning of every conference: "Is this meeting necessary, and, of those present, who can be excused from participating in it?"

In order to visualize clearly the path to a solution of a particular problem, the Commanding Officer must look far ahead and keep the final goal in sight. Only then

will he be able to split the task correctly into its component parts and execute them intelligently, coordinating them strictly with the overall objective.

On long cruises across the vast stretches of the world ocean, the vessels of our Navy execute combat training missions. The men are away from their home ports for long periods of time, and they are exhausted by the great physical and psychological stresses. This places a special responsibility on the Commanding Officer of a ship. He must constantly feel the pulse of the crew and help the men to temper the will and endure the rigors of service more easily. In order to achieve this, he must also maintain constant personal contact with the men and must have a well-regulated system of reports and Party and Komsomol information.

In conclusion, it should be stated that a business-like nature is a quality which is both taught and self-taught. Senior officers should always remember this and pay careful attention to it when working with the Commanding Officers of ships.

MORSKOY SBORNIK, No. 3, 1972, pp. 59-62.

ALWAYS COMBAT READY

by Major M. Chevychelov

The deep-blue ocean beneath the wings of the aircraft was suddenly replaced by the equally deep green of the taiga. In the distance, surrounded by a dense palisade of pine and larch, appeared the grey concrete of the airfield with its thin snaking taxiways and approaches. Just off to the side, in the middle of a broad clearing in the forest, rose the houses of the flight village. This is also the home of an outstanding missile aircraft subunit, which has not had a flight accident in more than 20 years. As you can see, this is not a short period of time. During this time there has been more than one change of command and personnel have been replaced. Nevertheless, the subunit has continued to operate with confidence and without disruptions. /59

What is the reason for this stable success?

My traveling companion explained it simply: "They probably don't fly very much and don't look for trouble as some of the others do. And maybe the men are simply lucky. . ."

However, it turned out that he was wrong. They fly a lot here, day and night, over land and sea, in all kinds of weather. And as for luck. . . But since it was mentioned, suppose we begin with this.

Commander's luck. Major Aleksandr Voronin is known as the "luckiest" flyer of the subunit. And good fortune does, indeed, seem to follow him. Not long ago his detachment again was designated outstanding and was awarded the Challenge Pennant. During last year's fall tactical flying exercises, Voronin's crew (once again) sent a missile into the "ten." But behind these clearly visible successes, how much trouble is imperceptible to

the eyes of outsiders: sleepless nights, preparatory work, and the personal courage of a Communist officer and his comrades in arms!

The day before the last missile firing Voronin became ill. However, he steeled himself and went to the airfield, where intensive work was in progress. Every hour was precious. Concealing his illness, the officer studied theory in classes and spent several hours in the trainer and in the cockpit of the aircraft. When he learned of this, the doctor said sternly: "To bed and no flying. Stop even thinking about it."

He actually had to give up the flights. But not to think about them. . . This was against a pilot's nature. In preparing for the upcoming exercises, the aviators assumed increased responsibilities. The Communists and Komsomol members of the crew decided unanimously to complete all exercises in tactical flight training "outstandingly," without preconditions that might lead to accidents.

And now, at the crucial moment, the crew was left without a commander. To his disappointment, Voronin was not at his post. Several times during the day he received reports on the status of the launch preparations, rejoiced over the good news and was distressed by the bad.

Much of the work involved in preparing for the tactical flight training then fell to the subunit commander, Lieutenant Colonel N. Ivashchenko. When he learned that Voronin's crew was without a "boss," he took over himself. He prepared the missile, conducted tactical firing and drills, and trained his subordinates and himself. But, you say, how about the urgent responsibilities of the subunit commander? They can't be put aside, you know. The only time Ivashchenko could attend to them was at night.

As sportsmen say, however, the crew maintained their fighting trim as if there had been no difficulties and they approached the beginning of the exercise as a strong and cohesive unit. This was immediately felt by Major

Voronin when he returned to duty. When the alert signal was sounded he was one of the first to get his plane into the air. The target was destroyed with a direct hit by the missile. The Voronin crew again celebrated their "name-day." Someone said that he may have been just a little lucky with the launch. But it seems to me that all of the aviators of the subunit were lucky, since love of their work, cooperation and concern of each for the overall situation were an inalienable standard of their behavior. This enthusiasm and solidarity helped the men cope successfully with the most complex problems on the ground and in the air. /60

To Copilot -- 2nd Class level! The success of a flight operation depends largely on the skill of the crew in correcting operating equipment, i.e., on their professional training. In this connection I would like to cite a relevant example.

Replacement pilots arrived in the subunit. On the diploma of each new pilot it said "pilot-engineer." However, they still lacked skills. Their senior comrades had to teach this to them. But suppose a lieutenant has joined a crew whose commander (and occasionally it happens) has just moved into the pilot's seat. He has still not gained full confidence in his new capacity, and naturally cannot teach a subordinate the fine points of the art of flying to the fullest extent. The pilot works with such a "teacher" for a year or two, and again, you see, he is switched to a young commander.

In order to avoid this sort of thing, the subunit devotes special attention to the flight training of replacement pilots.

Any school is strong above all because of its instructional staff, which for beginning pilots is made up of flight instructors. Their development is one of the primary concerns of the senior officers and Communists of the subunit. The work of the instructors and their successes and shortcomings in the training of the young people were discussed at meetings of the Party Bureau and at conferences. Communists N. Ivashchenko, A. Voronin

and L. Polyakov regularly flew with the lieutenants and taught them the difficult art of aerial combat.

About a year ago, the aviators of this garrison in the taiga came up with a new innovation: to Copilot -- 2nd Class level! The beginning was unusual and, one might say, bold. Not everyone believed in its viability at first. There was too much the young pilots had to know and be able to do in order to cope with their assignments. But today in the subunit there are already copilots of missile aircraft who are able to fly the aircraft independently by day in clouds, and by night. These include, for example, Senior Lieutenants V. Gerasimenko and V. Shpyrev. This immediately creates a group which can, in turn, train copilots. Under the direction of experienced instructors they confidently master the secrets of their profession.

All of this has a beneficial effect on the training and combat readiness of the aviators and increases flight safety.

They service the flights. If an aircraft can be compared with a bird, then the airfield is its family nest. Here it obtains everything it needs for flights. But no matter how complicated and difficult the mission in the air, its success is determined to a large degree by the work of mechanics, technicians and engineers. This truth is not new and is well-known to every aviator. Well-known. . .But it must become an inner conviction of everyone, in order that he be forced to strive, to look to tomorrow, and to lend himself fully in support of the combat readiness of the Fleet.

The Communists and Komsomol members of this outstanding subunit succeeded in doing this. Their concern for the affairs of the group, their striving for the new, and their enviable diligence -- this is what distinguishes them favorably from the other aviators of this squadron. /61

Entering the next stage of Socialist competition in honor of the 50th anniversary of the formation of the

USSR, the Komsomol members assumed obligations in increasing their class consciousness and mastering related specialties, and are discharging them with honor. Do you think it would be easy, let us say, for mechanics in their first year of service to become specialists 2nd class? They might not have been able to do so, but they were helped by their senior comrades -- Communists V. Gorbashchenko, G. Pasynkeyev and V. Yudintsev. Technical groups were created in the subunit. They were led by experienced teachers: Lieutenants of Technical Services P. Gonchar, Yu. Chudin and others. They studied evenings, in their free time. At the same time the aviators prepared for the competition to determine the best specialist of the subunit. Lieutenant V. Kiselev, the secretary of the Komsomol organization, together with Captain V. Gorbashchenko and other officers, worked out a detailed program for the competition.

On this day they proceeded as if it were a serious and crucial examination. The hall of the NCO Club was solemnly festive. Behind tables sat members of the Committee. Cards were distributed to the contestants in the competition. On each card were questions about aviation equipment, the rules governing its operation, Regulations of the Armed Forces of the USSR, small arms, etc.

There was a tense silence. The "fans" sat still in their seats, those who had come to strive for the high ranking hurriedly scratched on pieces of paper with pens and pencils.

Junior Sergeant A. Vasichenko walked up to the table. He answered briefly but exhaustively. He also disposed of the secondary questions with ease.

Seamen Ilyushkin, Kulikov, Laptev and Tashkinov elucidated the questions interestingly and thoroughly. Their answers were rated at the level of specialist 1st class. The winners were awarded a "nonchallenge" trophy -- a ten-kilogram cake!

By the way, this type of contest for the designation of best specialist of the subunit has already become a tradition and is held three or four times a year. Other means of improving professional knowledge have also become widespread, including exhanges of experience and speeches by the best specialists before the young people.

Always ready for flight and combat. One might be so bold as to call these words the motto of this outstanding missile aircraft subunit. All of the work of the senior officers, Communists and Komsomol members of the group is directed toward rising quickly into the sky at the alert signal and destroying the target like sharpshooters -- at any time of day or night, and in any kind of weather. . .

The weather had been bad for nearly a week. The edge of the airfield was white with snow and rivulets ran across the ramps where the aircraft were parked. The snow was not able to compact. Men and machines pushed it aside and it thawed under the fiery exhausts of the laboring engines. The subunit was getting ready to take off.

According to reconnaissance data, "enemy" warships should appear in a remote quadrant of the ocean. The problem: not to lose sight of them, launch a surprise attack and destroy them.

Everyone lived in anticipation of the takeoff signal. Twenty-four hours rushed past. The daily routine was akin to combat conditions. They slept fitfully. Each one thought of the action ahead. . .

The alarm sounded early in the morning. And as the first rays of the sun finally pierced through the murky curtain of clouds, the thunder of jet engines shattered the silence of the neighborhood. The subunit was off.

The ocean greeted the aviators with multilayered clouds, jarring turbulence and thick sheets of rain.

It cannot be denied that the weather "shook" the nerves of the men pretty well while they were breaking through to that nameless expanse of ocean.

First in the combat formation was one of the best crews in the subunit, commanded by Major L. Polyakov. This united combat family, composed of Captain I. Omelyukh, Lieutenant V. Gerasimenko and other specialists, detected the target at the maximum range and destroyed it. The other crews also executed the mission successfully.

This is how the naval aviators of that outstanding subunit live and serve at their remote airfield, located at the edge of the taiga almost at the very shore of the ocean.

Photographs - p. 60, Caption: Major L. Polyakov.

p. 61, Caption: Captain G. Pasynkeyev.

MORSKOY SBORNIK, No. 3, 1972, pp 66-67.

MEN OF THE FOKIN
(A Photo Story)

by Captain 3rd Rank-Engineer O. Myatelkov

There is in Vladivostok a wide and peaceful street. /66
Gliding down the hill, it hurriedly descends, and at its very end it fully turns into a quiet waterfront, at the foot of which nestles an ocean wave, glittering in patches of sunlight. On holidays, a ship sits on the hazy, glassy surface of the bay, which is outlined in a blue square in the alignment of street buildings. The street and the latest guided-missile cruiser are namesakes: named after Admiral Fokin, the famous Soviet naval commander.

Vitaliy Alekseyevich Fokin is well-known here. In the postwar years, he was Commander of the Pacific Fleet, then First Deputy Commander-in-Chief of the Soviet Navy. V. A. Fokin did much to increase the combat strength of the Fleet. In that period, construction began on warships, one after another. The "green" lieutenants of those times - the present commanders of subunits - seized the handles of engine order telegraphs and extended the plot on the navigators' charts ever further from the native shores. In the annals of the Red Banner Pacific Fleet, a date is inscribed: in 1959 a detachment of ships under the flag of the Commander of the Fleet was the first to cross the equator.

During this time the capabilities of the Red Banner Pacific Fleet grew unnoticed. At the present time, powerful nuclear-powered ships silently glide thru the dark depths of the ocean and the range of surface missile ships is measured in hundreds and thousands of kilometers. The area of navigation has been widened... The warm and cold waves of the sea, the Southern Cross hanging over the horizon, the silver arrows of flying fish over the blue ocean - all have become customary for the men of the Pacific Fleet. The course of the cruiser ADMIRAL FOKIN recently lay in those distant regions.

Crewmen of the FOKIN carry their glorious name with dignity. They are fully fulfilling all combat training exercises on long cruises.

Quite a legacy...this is indeed one of the principal reasons why the successes of the ship are constant and why the intensity of combat training is also constant.

Senior Lieutenant-Engineer B. Stepanenko arrived at the cruiser when the contours of the ship were outlined on the ways of the shipyard. From the keel to the truck, from the stem to the rudder blade, the head of the Engineering Department, Captain-Engineer 2nd Rank B. Stepanenko, knows his ship. Tens of thousands of miles have been logged by the cruiser, and each mile there has been constant and tedious work by a team headed by an experienced leader. /67

For just over a year, Senior Lieutenant-Engineer Ye. Rozhkov has served under the supervision of Stepanenko, and has already received authorization for independent command of the Engineering Department. He always willingly shares his knowledge with the men (Photo 1).

Complicated communications equipment is installed on the ship. The latest achievements of Soviet science and technology are embodied in the hundreds of electronic circuits installed in the ship's houses. It can be said that the young head of the Engineering Department, Senior Lieutenant M. Bychkov - a Communist and member of the Party Bureau - knows them to the minutest detail (Photo 2). Otherwise it would be impossible: Only a knowledge of the most delicate electronic processes will assure successful maintenance of communications for the cruiser.

A profound knowledge of his profession is a necessary condition of a commander's authority. And if, after a year of work under the guidance of Captain-Lieutenant A. Timoshenko, the ship's Electronic Department has become outstanding, and if his subunit was able to recently support, under the most complex

conditions, crucial missile firings, then the approach of the officers of the FOKIN - a deep, fundamental, contemporary, Party approach - is also clearly evident here.

On a missile ship, the heros of the day, naturally, are frequently the missilemen. A knowledge of this formidable weapon and the efficiency and precision of operations enables them to achieve outstanding results. The AA division commanded by Communist V. Kostyuk always functions truly in the FOKIN tradition - rapidly and faultlessly. Quite recently, under difficult conditions, the men hit the target with the very first missile.

There are grounds for the good mood of Captain-Lieutenant P. Temnov (Photo 3). His division solidly bears the title of outstanding. It was earned on long cruises in a continuous, intensive effort to increase combat readiness with the most complex equipment. How many training exercises had to be conducted by the crews, how many hundreds of hours of strategems by the missilemen, in order to achieve a high rating!

The name Fokin unites the street in Vladivostok and the formidable warship. This name has become a symbol of the unbreakable link between the Army and the people, the blood relationship between a worker standing before the lathe and his defender - the seaman positioned at the missile console.

The crew's strenuous work has borne fruit. On the eve of 1972 the cruiser was declared outstanding. The men of the FOKIN fulfilled all their tasks with "excellent" and "outstanding" ratings. Participating in AA missile firing for the Fleet prize, they took second place.

Noting the merit of the Komsomol organization of the ship in the education of youth, the Central Committee of the Komsomol awarded it a Memorial Banner.

RUSSIAN FAMILY NAMES AND THE NAMES OF SHIPS

ON THE MAP OF THE WORLD

by Captain 3rd Rank B. Maslennikov

RYURIK is a brig built in 1815, with a displacement of 180 tons and with 8 guns. In 1815-1818, under the command of Lieutenant O. E. Kotsebu, she completed a scientific cruise around the world. The crew was assigned the task of "proceeding from the Bering Straits along the northern coast of America to search for the place where the eastern ocean joins the Atlantic." In addition, the expedition was assigned the task of exploring the little-known tropical zone of the Western Pacific, where a number of islands had been discovered: the island of Rumyantsev (Tikei), named in honor of the Russian statesman who financed the expedition: an atoll (Vot'e) in the Marshall Islands, which Kotsebu also named for Rumyantsev, as well as two other atolls in that archipelago, named for Kutuzov (Utirik) and Suvorov (Taka). /83

In 1816 Kotsebu attempted to find a passage from the Pacific to the Atlantic Ocean, but was unable to follow the northern route. On the coast of Alaska the Russian sailors discovered a vast gulf, which they named for the commander of the ship.

During the cruise of 1815-1818, the name RYURIK was entered on the map four times. A bay in Yakutat Bay in Alaska, a strait in the Aluetian Islands (Unimak), an atoll in the Rossiyan Islands (Arutua) and a passage in the archipelago of the Marshall Islands - all bear the name of the ship.

In 1821 Ye. A. Klochkov, aboard the brig RYURIK, discovered a reef in the Tasman Sea and named it in honor of his ship.

SUVOROV is a sailing vessel. In 1813-1816, under the command of Lieutenant M. P. Lazarev, she completed

the first around-the-world cruise to the shores of Alaska. The ship delivered cargo to Russian America and returned to Kronshtadt with furs trapped by Russian industrialists in the Aluetian Islands. On 28 October 1841, Lazarev discovered new islands in the Pacific (south of the Cook Islands) and named them the Suvorov Islands, in honor of the ship. The islands still bear that name.

PREDPRIYATIYE is a sloop. She was built in 1823, with a displacement of 750 tons. Aboard this ship Captain-Lieutenant O. Ye. Kotsebu completed his third around-the-world cruise (1823-25). During this cruise Russian sailors named an atoll of the Rossiyan Islands for the sloop. The island is now called Fangakhinor. The island of Escholtz was named in honor of the doctor and naturalist of the expedition. Today the island of Escholtz is called Bikini Atoll (Marshall Islands).

SENYAVIN is a sloop. Built in 1826, with a displacement of 300 tons and 16 guns. In August 1826, SENYAVIN, under the command of Captain-Lieutenant F. P. Litke, departed on an around-the-world cruise which lasted three years. During that time, 12 previously unknown islands were discovered in the Pacific Ocean, a hydrological description of several groups of islands was completed and maps of the Caroline and Marianna archipelagos and a significant part of the Bering Sea were compiled.

In 1828 F. P. Litke discovered a strait between Arakamchechen Island and the Chukchi Peninsula, which he named after the ship. In January 1828, the eastern group of the Caroline islands in the Pacific was named for D. N. Senyavin, the famous Russian admiral whose name the sloop bore.

SKOBELEV is a steam corvette. She was built in 1861 (initially named the VITYAZ'). During 1882-1885, under the command of Captain-Lieutenant V. V. Blagodarev, she completed a cruise from the Baltic Sea to the Pacific Ocean, during which (in 1883) she transported the famous Russian traveler N. N. Miklukho-Maklay from Djakarta (Java) to the coast of Maklay on New Guinea.

Officers of the SKOBELEV described Astrolabe Bay and discovered a number of islands there, the largest of which they named Skobolev, in honor of the corvette. Other islands were named Azbelev, Borshch and Kraft - after officers of the ship.

SLAVA ROSSZI is a sailing ship. She was built in Ikhotsk in 1789 especially for a "geographic and astronomic expedition to northeastern Russia," which was to describe the estuary of the Kolyma, the shores of the Chukchi Peninsula, the Aluetian Islands and the coast of America. The ship made a great contribution to geographical science and was famous as part of an expedition under I. Billings and G. A. Sarychev. St. Jona Island in the Sea of Okhotsk was discovered from aboard SLAVA ROSII, and in addition a number of the Kurile Ialands, part of the eastern coast of Kamchatka and the Aluetian Islands were described from her decks. Also, she made an attempt to pass from the Bering Straits to the Kolyma. A memorial to this ship remains in the names of "Slava Rossii Bay" on Tanaga Island (Aluetians) and a cape on St. Matthew Island (Bering Sea). /84

SIVUCH is a gunboat. Built in 1815, with a displacement of 1134 tons and12 guns. She was sent to the Pacific, where as a unit of the Siberian Flotilla she spent her entire service. The crew of the ship participated several times in hydrographic operations in Peter the Great Bay, on the east coast of Korea and along the Kuantung Peninsula in the Yellow Sea. Officers of the ship named a shoal located near Russian Island in the Peter the Great Bay, and a bay on the east coast of the Korean Peninsula after the gunboat. The Sivuch rock (Tansyalao) and a strait in the Lichanshan'ledao Islands in the Yellow Sea also bore the name of the gunboat (however, the names are not found on present-day maps).

PLASTUN is a clipper. She was built in 1856 at the Archangelsk Admiralty Shipyard, one of the first six wooden propeller clippers, in a new program of construction of a steam cruiser fleet. She had a displacement of 615 tons and carried 6 guns.

In 1857, as a unit of the Amur detachment, she

proceeded to the shores of the Pacific Ocean. Cruising in the waters of the Far East until August 1859, PLASTUN visited Peter the Great Bay, Imperatorskaya Gavan' (now Sovetskaya Gavan') and Olga Gulf. On several occasions she participated in hydrographic research to investigate the little-known coast of the Tatar Straits.

During a return cruise to Kronshtadt on 18 August 1860, the clipper was lost in the Baltic due to an explosion in the powder magazine. Two bays, one in the Chikhacheva Gulf and one in the Gulf of Rynda (Sea of Japan), are named in her honor.

MORSKOY SBORNIK, No. 3, 1972, pp. 88-89.

THE UNSEALING OF SEA OPENINGS

by Candidate of Technical Sciences
V. Pechovskiy and Engineer P. Vakhmistrov

Experience has shown that the unsealing of sea openings in the underbody can be very time-consuming. It has been observed that the unsealing of openings in vessels of the same type in different navies requires varying lengths of time, depending mainly on the skills and equipment of the persons doing the work. /88

Hence it follows that there are possibilities for reducing the time required to unseal sea openings. Therefore, it is important to generalize and disseminat positive experience.

The authors participated in a project in which the time required to unseal sea openings was reduced by a factor of 3 to 4. This was accomplished through the use of special devices and good organization.

We consider it mandatory to share our experience with specialists who are concerned with problems in the operation of warships and merchant vessels.

Cutting rubber plugs, installed without sheet steel "cradles," with a diver's knife in unsealing small openings usually creates no difficulty and does not require a great deal of time.

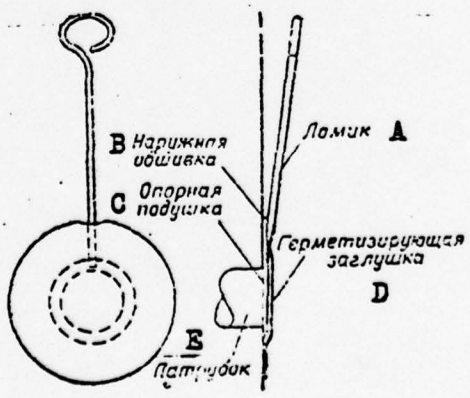
The unsealing of sea openings with "cradles" using this method is quite complicated. It is especially difficult to unseal openings when the plug has been glued to the "cradle." Instead of cutting the rubber along the contour of the opening or the "cradle," it is necessary to tear the sealing plug completely away from the hull of the ship. This requires considerable effort and an appreciable expenditure of time. To

facilitate and accelerate the work, they sometimes use a block and tackle. A diver cuts the plug from the hull at one point with his knife and fastens a screw clamp to it. He then engages it with the hook and tackle from the deck of the diving boat and the plug is ripped loose from the hull of the vessel.

This method is cumbersome, however, and does not yield any large saving of time. For unsealing openings, we suggest the use of specially constructed crowbars, made from steel rod with a diameter of 20-25 mm. One end of the crowbar is bent into a ring (so that it can be held conveniently in the hand), and the other is shaped into a wedge and sharpened. For convenience in working, and to prevent loss of the crowbar through slippage from the hands, it is fastened to the diver by a rope with a length of 1-1.5 m.

The diver swings the crowbar, drives the sharp end between the plug and the hull and pries it away at that point. It is necessary here that the sharp end of the crowbar penetrate under the "cradle." Then the diver can remove an appreciable area of the glued plug or even tear it off completely in one step (see diagram).

Factors of great importance in decreasing the unsealing time are clarity of organization and required support for the diving operations (suspended boatswain's



chairs, bottom lines, lamps, etc.).

A - Crowbar; B - Shell plating; C - Cushion;
D - Sealing Plug; E - Sea chest.

Use of crowbar to remove sealing plugs.

The work of the diver is supported by the ship's personnel: they quickly set up the bottom lines and rig the boatswain's chair in the vicinity of the openings. They supply the diver with the necessary tools and mark the locations of the plugs by tapping on the sea connections or the shell plating near the openings etc. /89

It is more convenient for the diver to work with the crowbar and other tools from an underwater boatswain's chair. Lightened metal or wooden ladders may also be used for this purpose.

For tapping the sea connections or shell plating it is advisable to designate a specialist from the engineering department who is very familiar with the locations of the sealing plugs in the bilges and compartments of the ship. It is appropriate in this work to have a drawing which shows the locations of the sea openings and which has been prepared in advance and refined at the time of the most recent drydocking of the vessel. Starting from the centerline and depicting the port and starboard sides separately, the sealed openings are plotted on the drawing, indicating their position in relation to length (numbers of frames) and width (distance from the upper deck to the opening along the hull lines) of the vessel. The drawing is used by the divers to study the locations of the plugs and to monitor the quality of the unsealing operation.

Unsealing of the intakes of the main circulating pumps, which have large plugs, is best accomplished by cutting them with a diver's knife. Here the face of the plug must first be cut, in a crisscross fashion, and then cutting away each section around the contour of the opening.

The bottom blow-down ports for the main and auxiliary boilers can be unsealed successfully by blowing down the boilers when they are put in operation. An inspection by a diver of the quality of an unsealing achieved in this way verified the reliability of the method: the plugs were torn off the hull completely. The strength of the connections to these openings makes it possible to unseal them in this way.

Experience has shown that the total amount of time required depends on the sequence in which the sea openings are unsealed.

The openings for machinery assuring the habitability and watertight integrity of the vessel should be unsealed first. Next come the sea openings for the machinery and systems of the echelon of the engineering department which must be activated first. The subsequent sequence is determined by minimization of the number of times the diving boat must be remoored and moved from one side of the vessel to the other.

The experience we have described in unsealing sea openings in the hull of a vessel enables us to significantly decrease the amount of time required for these operations.

MORSKOY SBORNIK, No. 4, 1972, pp.34-38

THE AUTHORITY OF AN OFFICER

by Vice Admiral A. Kosov

For several years, the MICHURINSKIY KOMSOMOLETS, /34
a missile boat commanded by Captain 3rd Rank G. Grebenshchikov, has displayed on her deckhouse the emblem of an "outstanding ship." Her crew fulfills every combat training task with a high degree of skill, delivers accurate missile strikes, and is noted for a high degree of discipline and organization. Competing under the motto "The 24th Congress of the CPSU - a year of outstanding training and service," her personnel carry out their assigned tasks to the utmost.

The success of the crew is the result of many causes, but one stands out above all the rest: the authority of the Commanding Officer of the ship. Each of his commands, instructions and orders is executed precisely and strictly. If you were to ask the men what makes them act in such a fashion, they would answer: "Our CO taught us to do so."

"Our CO" is a concept into which the men pour all their warmth of feeling and all their respect for Captain 3rd Rank Grebenshchikov, who is a teacher, educator and older comrade to them.

The authority of an officer is a complex concept, an idea indicating the force of the moral influence a leader has over his men.

In a Socialist society, the authority of an individual springs from his social usefulness. It is perceived by others, according to A. Makarenko, as the unquestioned merit of a superior, as his strength and worth, so to speak, through the naked eye.

L. I. Brezhnev said, in a summary report to the Central Committee at the 24th Congress of the CPSU, that even if a leader is endowed with the powers of one-man rule, he still cannot rely on the force of his command alone. The Party, emphasizing the need for an organic relationship between economic and educational work, demands that workers in leadership positions constantly consider the educational consequences of their decisions.

The significance of authority in the Armed Forces is especially great. The bearers of authority in the first instance are the officers - the backbone and pride of the Army and Navy. True sons of the people, they are fundamentally different from officers in the armies of the capitalist nations. These resolute and courageous leaders are warriors with lofty Party attributes. They are able to convey to their subordinates the great ideas of our Party and can endure with them the burdens and deprivations of service.

In our time the role of Commanding Officer (one-man ruler) has grown even larger. Modern warfare demands of him unprecendented physical and spiritual strength, effectiveness in making decisions, and speed in implementing them. Only a leader who possesses will power, great skill, organizational aptitutde and the ability to influence the minds and hearts of his subordinates can captivate them and direct their efforts toward a single goal and faithfully carry out the battle concept.

Presently, the possibility of meeting with subordinates face-to-face during the execution of combat training exercises is far less than before for many officers. Automatic control alienates them to a certain degree. Besides, now that the evolution of military affairs has reached an exceptionally high level, the demands for firm psychological ties between the Commanding Officer and his men have increased that much more. The most important element governing these ties is the authority of the officer. /35

The Soviet officer is invested with honoring rank

and great responsibility. He bears the responsibility, before the Party and the people, for the defense of the Motherland and for the fate and lives of his men. He must be master of a constantly improving and complex military technology. He must seek new methods and tactical applications for the weapons entrusted to him. Yet, no matter how profound his military and specialized knowledge, his military-technical training will not produce the desired result unless he has the ability to get to the heart of human relations, into the souls of his subordinates. He must possess the art of working with people. The very fact that he is an educator already assumes a ligh level of authority for him.

Indubitably, the bestowal of military rank and assignment to a certain billet is at the root of the authority of an officer, i.e., his overall moral authority. It is shared by all officers without exception and requires much. But this is only the objective condition, the beginning of a Commanding Officer's authority.

The degree of influence a Commanding Officer exercises over his subordinates depends upon his individual worth. Unrated seamen and petty officers will carry out his orders and instructions with greater diligence when they see an indisputable authority in them. The same words produce a different effect in men, depending upon whether they issue from an authoritative or nonauthoritative person. The directives, advice and suggestions of Captain 3rd Rank G. Grebenshchikov, for example, given forcefully and quietly, are regarded by every crew member as orders. They are executed by the crew with firm conviction in their correctness and necessity.

The social authority of an officer is inseparably linked to his personal moral authority, supplementing and fortifying it. His own moral authority is earned daily, hourly. Here much depends on the officer himself, his exemplary behavior and zeal, and also on his teachers.

What qualities lie at the base of authority, what should the officer demand of himself?

Every officer is above all a political leader and teacher of his subordinates. In order to instill high morale in his men, the officer himself must be ideologically tempered, have a broad political outlook and deep knowledge of Marxism-Leninism, the theory and policy of the CPSU, be able to think dialectically, and creatively carry out the most varied tasks. Communist conviction is the pivot which imparts ideological direction to all measures taken by an officer, from training exercises to conferences and critiques.

Of course, we cannot divorce Communist ideology and the Marxist-Leninist preparation of an officer from his other qualities, first and foremost his knowledge of military affairs and his specialized training. Having discovered this connection, M. V. Frunze wrote: "Marxist theory itself demands from us the diligent study of military affairs." The most important components of the authority of an officer are his thorough military education; a solid knowledge of his specialty; excellent tactical training; thorough knowledge of regulations, instructions and manuals; and high moral and psychological qualities.

In speaking of the specialized and tactical training of any officer - be he the CO of a force or ship, or department or group head - we must proceed from the fact that he commands a combat unit. In the event of war, the officer becomes a combat leader, upon whom depend the fate and lives of the men entrusted to him. Therefore, subordinates are always strict in their evaluation of the professional readiness of their officers. The skills and ability of Commanding Officers /36 constantly undergo evaluation in the eyes of the crew in all ship-type training evolutions, tactical drills, voyages, firing exercises and launching of missiles.

Combat equipment and weapons aboard ship are evolving at an extraordinary rate. Therefore, an officer must work diligently toward increasing his knowledge

and perfecting his skills. He must follow attentively every discovery, innovation and development in the theory of military affairs and the practice of training. He cannot rely on his old storehouse of knowledge received in schools and academies. Otherwise he could fall behind, and this means losing his authority.

An officer should possess developed organizational capabilities, the ability to plan combat and political training and to promptly execute all tasks assigned to his ship or force. A good organizer is distinguished by his ability to provide a clear procedure in a unit or aboard ship, to assign his men and define their duties in accordance with their capabilities and potential, and to rely on the Party and Komsomol organizations in his work.

As a rule, success in education and training comes to the Commanding Officer who is highly efficient. This consists not only in giving necessary instructions and setting a deadline for their execution; but also in the ability to control subordinates, to show them how to proceed and to foresee and avert mistakes. It is clear that an officer must be competent in his field, know his speciality, combat equipment and weapons to the minutest detail, and possess excellent theoretical training.

The majority of our officers are men who are enthusiastic about their jobs and skillful group organizers. We might include Captain 2nd Rank N. Kasperovich, CO of the large ASW ship OBRAZTSOVYY, in this category. The ship he commands receives consistently high marks in combat and political training. That is largely to the credit of the Commanding Officer, who is a composed, well-organized and efficient officer. He directs his prime efforts toward organizational work - to teaching subordinates, monitoring the execution of orders and reviewing the quality of exercises and training.

Without exception, an officer who has authority

possesses high morale and resolution, clearness of purpose, decisiveness and self-control. To display self-reliance, to creatively approach the resolution of any problem and to sensibly support the initiative of subordinates is half the battle. That more or less determines success. Timidity and the fear of accepting responsibility are not tolerated in the character of a Communist officer. He who is easily swayed, or who reaches decisions without thinking and just as lightly recedes from them does not enjoy the confidence of his men.

The men greatly value a strong-willed CO. Will power is formed in day-to-day affairs, in one's attitude toward carrying out assigned duties, in one's ability to maintain a taut ship, and is reflected in faithfulness to one's convictions.

The personal moral authority of a Commanding Officer is closely related to his sense of justice, his sincere concern for his men, and his awareness of their needs and problems. One of the essential conditions for respect of an officer by his men is that he be guided in his work with them first and foremost by the interests of the situation, while at the same time being a cordial and sympathetic person. /37

Naturally, relations among the crew depend primarily on the moral integrity of the CO. His integrity, truthfulness, modesty, worthy behavior in everyday life, in his family life, his industriousness - all are necessary preconditions for successful work in the education of his subordinates. They are the most important ingredients of authority. The officer who does not possess these qualities is doomed to fail, as was the case with Captain 3rd Rank A. Kholdeyev. It is difficult now to determine how everything happened to him. He committed his first breach; then, confident that he could act with impunity, he committed his second. He was not a person gifted with self-criticism. As a consequence, he did not detect the changed attitude of his men toward him. His authority was compromised and it became difficult to work with the men without it.

From the point of view of Communist morality, the honor and dignity of an officer are incompatible with lies, drunkenness and other amoral manifestations. Unfortunately, we do encounter instances in which certain officers, for the sake of concealing the loss of authority among their men, will resort to insincerity, eyewash and the concealment of deficiencies. This not only undermines the authority of the officer, but also demoralizes the crew of the ship and reduces their combat readiness, i.e., it jeopardizes the interests of the State. Only an officer whose conscience is clear and whose moral behavior is beyond reproach may make the highest demands of his men.

Overall educational background occupies an important place among the attributes of an officer teacher. Without it, it is difficult to educate and teach the men, who, after all, possess skills, and have great spiritual needs and diverse interests. In order to attract youth, it is necessary to enjoy their favor, to live with their thoughts. An officer who is enthused with the advanced ideas of the age, who loves books and follows developments in science, technology, art, literature and sports is capable of that.

The officer teacher needs pedagogical tact, i.e., the ability, in the process of leading subordinates and educating and training them, to attain good results, not permitting rudeness, insult or debasement of their personal dignity. V. I. Lenin emphasized that successful work with people requires "special tact, the ability to reach the masses in a special way in each specific instance, achieving, with minimal friction, uplift of these masses to a higher cultural, economic and political level."

Teaching requires great skill, developed thought and a creative approach to the selection of teaching materials and methods, the application of which must consider the developing circumstances and individual peculiarities of subordinates. In the art of command, even tone of voice is important (harsh, angry, demanding, dry or cold, respectful, flattering, scornful).

Tone of voice provokes a corresponding reaction on the part of subordinates, A. Makarenko said "I became a true expert only when I learned to say 'come here' with 15 to 20 intonations. Only then did I cease to fear that someone might not get what I meant."

Tactfulness is not only an indication of the high cultural level of an officer, but also of his compassion, humanity and good will. A high degree of fastidiousness and concern, severity and kindness, intimacy and simplicity are combined therein. However, professional tact is not an end in itself, but a means to an end. It would be incorrect for an officer, in order to avoid conflict and friction, to make concessions and lower the standard of performance demanded of his subordinates.

Some Commanding Officers consider a sharp tone, a shout or rudeness the mark of resoluteness. Captain-Lieutenant G. Pavlov, for example, thought nothing of shouting at his men. This naturally, caused the men to take offense. /38

The ability to work with fervor and perspective is a valuable attribute of a teacher. "A person may be very knowledgeable and cultivated," said M. I. Kalinin, "but if he instructs young people with coolness and does not inject spirit into their education and training, the young people will quickly perceive it. They will not like such a leader."

Authority is dynamic and fluid. It may develop, intensify and, under certain conditions, diminish. Life demonstrates that it is easier to preserve and strengthen existing authority than to establish it anew.

We would like to particularly warn young officers against making blunders in this regard. Certain officers, after having encountered difficulties, may set about acquiring false authority. Some flaunt their superiority under the law and the possibility of holding their subordinates in fear of punishment. Others try to deal with their subordinates as rarely as possible, to keep

their distance from them. A third group tries to shield itself behind unneccessary artificial conventionality, giving rise to petty pedantry, not in accord with regulations or common sense. A fourth group attempts to acquire authority by being good "buddies" with the men, which leads to a reduction in standards. All of this undermines the authority of an officer and prevents him from carrying out his responsibilities.

Senior officers are obliged to constantly look after and protect the authority of junior officers. There are cases, although rare, when seniors, in the presence of subordinates, may speak sarcastically about the capabilities and personal qualities of their CO, or may indulge in a public reprimand of an officer.

The high authority of an officer exerts a decisive influence on the results of training, on the education and instruction of personnel. The qualities which comprise authority are shaped in the process of an officer's instruction in schools and academies, in his practical work through self-development under the influence of Commanding Officers, political workers, and the Party and Komsomol organizations. As was noted at the 24th Congress of the CPSU, authority is not conferred along with an appointment and rank. It does not come automatically. One must acquire it and constantly support it with all one's endeavors and behavior.

Photograph caption, p. 36: Captain 3rd Rank G. Grebenshchikov.

MORSKOY SBORNIK, No. 4, 1972, pp. 45-48.

FLIGHT EFFICIENCY

by Colonel A. L'vovskiy, Military Aviator 1st Class

The injunction of the 24th Congress of the CPSU /45
to persistently raise the efficiency of labor and to insure that expenditures match results attained relates directly to military cadres.

The good name of Colonels V. Kulikov and D. Onishchenko is known throughout the Fleet. The activities of their subordinates are, above all, characterized by smooth functioning, consistent success and the systematic growth of skill and combat readiness. These Commanding Officers well understand that a pilot achieves his best results in combat training when he labors productively in the course of preliminary training and flights. In the planning stage, they always involve the squadron commanding officers. This makes it possible to correctly determine the maximum capabilities of each crew, and to generalize and propagate the experience of the best pilots. This creates the conditions under which aviators confidently and constantly increase their level of aeronautical science.

The ability to carefully allot time and use it to maximum effect makes successful squadron activity possible. Aviators understand that lost time must be made up, and this may lead to haste, deviation from safety rules and procedures, and to excessive tenseness at work.

The correct distribution of time being served, taking into account the nature of the flights, is largely determined by the system under which flights are planned. It may even be that the fundamental reasons for the lag of certain subunits in certain aspects of flight training (even if the general flight

is fulfilled) is neglect in the planning stage.

What do progressive Commanding Officers do for the achievement of maximum returns from a flight? First of all, they put together an individual training plan for the year for every crew, in the process thoroughly taking into account the possibilities and prospects for progress by the pilots (navigators). The plan is developed so that, not disturbing the sequence in the instruction of officers, it prepares them, in a short time span, for day and night operations, under adverse weather conditions with established minimal weather. Such plans, as a rule, are prepared in graph form, which makes it much easier to plan flights for a month, week or shift. /46

An important precondition for proper planning is a systematic review of the implementation of individual plans, which are becoming more and more popular in the Fleet. A detailed study and analysisof them enables us to determine in advance the aims and missions of flights, and efficiently assign personnel to them. In developing a timetable, they give special attention to flight crews with the lowest level of training, those who are being readied for detail to class and have not flown independently for some time.

Indubitably, any exercise should help the officers advance and should be consistent with their individual plan. Here it is important to skillfully select crews making the main decisions on a shift, provide reserve aircraft for them, and work for full implementation of the timetable.

One of the ways to increase the efficiency of a ship is to utilize a group of aircraft to perform tasks of the same type: for example, for the sole execution of exercises on a run, in a zone, or in a circle. Such a system of planning simplifies and accelerates the preparation of aircraft for repeated flights, and improves organization of the work of maintenance personnel.

The necessary time must be allocated for servicing the aircraft before a mission. It is determined, by the nature of the mission, the equipment at the airfield, the availability of maintenance facilities, and the experience of personnel.

There is sensible initiative in planning, and things go better in subunits where there is strict observance of the provisions and requirements of existing documents. Here there are fewer things that may lead to mistakes on land or in the air, and there is a higher level of training of pilots.

Aviators in the squadron which was until recently under the command of Colonel V. Kulikov for a long period of time successfully mastered flights under adverse metereological conditions. So that there might be no interruptions in instrument flights, involving landing systems, they regularly trained in making a blind approach to the runway. This enables the men to systematically carry out projected tasks and to constantly maintain training at the proper level. And when a period of foul weather ensues, the aviators proceed without delay to carry out adverse weather exercises.

It may happen that a pilot, for one reason or another, lags behind his comrades or loses previously acquired skills. Of course, every Commanding Officer tries to bring him up to the rest very quickly. However, in the process, one should not forget the need for systematic adverse weather training for all crews, increasing their mastery.

Thus in certain subunits there is a schedule for activation of pilots under minimal weather conditions. These schedules depict the sequence of exercises and the number of flights for each aviator and crew, taking into account the psychological peculiarities of their character and training. Graphs help to avoid mistakes in the preparation of the planning schedule. Thanks to them, officers clearly see the prospect for

their development as aerial fighters, they know the content of exercises and the number of shifts necessary for their mastery.

During a period of adverse weather, for maximum utilization of available take-off time alternate variations of the flight plan are usually provided for. Such a system has existed for a long time and is fully justified. However, there are inherent shortcomings. The greatest shortcoming is the tardy information reaching the personnel as to the variant on which they will be operating during the impending shift. This stems from the fact that now and then a Commanding Officer will take too long in making such a decision. The switch to an alternate variant in connection with a sharp change in weather conditions is not always carried out efficiently. Sometimes the time required to reorganize a shift is not taken into account, nor are there clear instructions as to the order of take-off. /47

In order to avoid these deficiencies, it is advisable to carefully study the weather forecast, to follow it during the course of flights, and to make wider use of data received from the aircraft regarding weather conditions. One must also foresee the procedure for maintenance during the transition to the alternate variant, and to consider the possibility of a refueling base.

In any case, in the compilation of a planning schedule it is desirable to arrange matters so that a crew uses the same aircraft for the basic as well as the alternate variant. This saves aviators from undue haste and increases flight safety. One should also consider the burden on personnel, should not permit huge gaps in the time between check flight control and training flights, and unjustified changes of instructors, and particularly, of crew members. Deviations from these requirements adversely affect the mood of the pilot, the quality of execution of an exercise and performance of the leaders, and lead to errors on land or in the air.

They can criticize me for such categorical planning requirements, which cannot be foreseen, and it is impossible to draw up a comprehensive plan in a hurry. But each time in a period of preliminary and ground training, and also in the air, we fulfill the usual tasks, and we resolve the same questions. An understanding of these problems, an analysis of the necessary expenditures of time, regulation of the work regime, and implementation of the scientific organization of labor - this is what enables us to successfully cope with planning problems, to increase the level of organization in all service branches.

The main thing in any case is efficiency. Consequently, every organization should be sufficiently perfected so as to guarantee maximum results with minimum expenditure of material means and human resources. In this connection, we cite the example of two different approaches to the same problem in two squadrons: activation of flight personnel after a protracted interruption of their flights under minimal weather conditions.

In one subunit, the Commanding Officer and his Executive Officer immediately began to summon rank and file airmen, without preparing their instructors. In the other unit, they did something different. At first they activated the instructors, then they started /48
with ship Commanding Officers. When the results of the squadrons were compared, at first it appeared that in the first squadron the rank and file airmen advanced fairly well. But after a few days the situation changed. The second subunit became the leader, having much better and more rapidly solved its problem. The large number of instructors enabled them to skillfully utilize take-off time to develop exercises in minimal weather.

In order to attain the maximum return from each specialist it is necessary to clearly determine the time required to fulfill the basic tasks of the day and to control their process of fulfillment. Unfortunately, in some subunits this is not properly observed, which leads to an unequal burden on some officers and

problems in the organization of the flying service. Harmony in the work of a unit is attained only after precise distribution of functional responsibilities to those charged with carrying them out.

If you do not understand yourself clearly, what is required of you, what you must do and when, then it will be difficult for you to assign time and resources, to surmount inevitable doubts as to your own actions. Responsibility for entrusted duties increases considerably when each man, in the words of Suvorov, knows "his own maneuver."

I had occasion to check the service headed by Lieutenant Colonel A. Rybalko. I found much that was gratifying: a scrupulous account of flight shifts to the end of the training year, carefully-formulated plans for the training of crews (in the form of tables), and a high level of staff work in their formulation. We realize that these documents will be amended, but nevertheless they facilitate the day-to-day planning of flights.

In perfecting the organization of flight work, it is necessary to attempt all measures to put it into practice, not uncoordinated but in a uniform fashion. It is also necessary to consider the interaction of all types of activity of the subunit directed toward the fulfillment of combat training tasks. We should give special attention to careful fulfillment of the planning schedule, over a period of time, as one of the ways in which the efficiency of the shift may be raised. Here we encounter elements of discipline, responsibility and initiative of aviators, so essential to the perfection of their skill.

Thus, in progressive naval air subunits, all know full well that tardiness in going out on a mission is not permissible. For that one is held strictly accountable, even to the point of dismissal from flight status. Here the flight critique begins with an analysis of execution, over a period of time, of the planning schedule. The effort to achieve its

its steady fulfillment is an effort to achieve efficient flight work and to increase its efficiency.

Unfortunately, aviators sometimes attempt to find "objective" reasons for delay in take-off, which seem fully warranted. Sometimes a system breaks down, sometimes an aircraft returns late, sometimes the crew begins to start the engines late. However, all this is the result of laxity, as well as inadequate responsibility and performance on the part of individual officers.

An indication of the proper organization of duty in a subunit is its stability. This is why a procedure adopted by it, which has withstood the test of years, should not be changed too often. If it has proved its value, then no surprises can materially affect the results of the activity of the personnel. But we do support the idea that an organization should be flexible, able to react to changes in flight conditions, and able to take them into account in various circumstances.

The how and what must be done to execute every task in combat training is specified in the documents regulating flight activity. For many problems involved in planning, organization and execution and control of the flights, methodological handbooks and recommendations have been published. It now remains for us to study them and implement them in everyday life.

The revolution in military affairs and the rapid development of technology and weapons demand profound scientific organization and direction of forces in all service arms. But we cannot relegate this problem to a distant tomorrow. The concept and principles of scientific organization of labor consist in the fact that they are applicable to all of us. Look carefully about yourselves and begin with your own problem - increasing the effectiveness of your own flight shift.

Photograph caption, p. 47: Major A. Sviridov, head of an outstanding subunit, defines a mission to the crew.

MORSKOY SBORNIK, No. 4, 1972, pp.57-59

BE ABLE TO WIN RESPECT

by Captain-Lieutenant-Engineer A. Grib

Casting off the mooring lines, the ship put out to sea. The task presented to the crew was to detect an "enemy" submarine, attack and destroy it. /57

I had served on the ship for a short time. I was barely excited but I endeavored to hide this from my subordinates.

The sea greeted us in an unfriendly way. The motion increased. I felt indisposed. It was stifling in the engine room. I wanted to leap out on the deck to take a breath of fresh air, but I knew it was impossible to desert my post. I tried not to think about the motion, but the waves were ever more strongly tossing the ship about. I was getting worse. The men noticed this. "Something has made our lieutenant pale," the voice of the engineman was scarcely audible to me. I looked at him reproachfully, but I did not divulge my condition. From time to time I glanced at the department head and was amazed at his tranquility, as if he were not at sea but in a classroom. He was coolly listening to the report by the engineer of the watch that the shafting was heating up, and he was glancing in my direction. Obviously wishing to distract me from miserable thoughts, he commanded: "Take action comrade lieutenant. You are the engineer of the watch."

Answering "Aye Aye," I strain every nerve. I explain the cooling line was clogged. I am reporting its solution. The department head approved it and I proceeded with the work. Soon the starboard shafting stopped heating up.

An ordinary incident, but it played a major role in my early days of service. Subordinates began to treat me with more respect.

I subsequently arrived at this conclusion: how significant to the authority of an officer are those matters which are sometimes called trivialities. On that memorable cruise it would perhaps have been possible, pleading illness, to run off to my stateroom, or avoid the engine room. No one would scold me, but my subordinates might develop an unflattering opinion of me.

Afterwards I was repeatedly convinced of the force of personal example. By demonstrating to subordinates theexample of performance, an officer thereby induces them to fulfill the requirements of regulations and influences them not only by word but also by his conduct, the example of his life, his attitude toward his service responsibilities.

Diligence, love of work - everything which comprises the concept of "personal example" generate in subordinates respect for an officer and the striving to emulate him. This is why it is very important that from his first steps a department head strive to value his honor and to look after his good name.

Nowadays young officers come aboard as group officers and department heads. For them everything is ahead, so to speak. They will perform complicated tasks, not only in operating weapons and equipment, but also in training personnel. This demands from them not only a high degree of special training but efficient performance, a deep understanding of their subordinates and a skillful approach to them. Once you underestimate any single element, it will be harder for the officer to perform the tasks.

Lieutenant Karnaukhov arrived on board ship knowledgeable and competent in his specialty. Good prospects awaited him. But he had a deficiency: his lack of self-control, which appeared at times when everything was not going well. Attempts to institute regulations in the subunit and to win the love of subordinates were in vain. His department fell from first place to third. But most of this was the fault /58

of Karnaukhov. He could not pull himself together. Talks with the department head, with officers of the ship and other measures did not help him get on the right course.

This is the logic of life: An officer breaching discipline is deprived of the moral right to demand from others the observance of regulations. M. I. Kalinin emphasized that educational work is one of the most difficult, because it is related to the personal conduct of the teacher. "If you call for discipline but it is constantly breached, it is clear that such a call will be ineffective," he said.

Unrated personnel and petty officers attentively observe a young officer, and each of his slips, as well as each of his successes, either increases or decreases his authority. That is why there can be no trifles in the actions of a lieutenant.

The young officer, Yu. Smirnov, was a diligent work-loving department head. Thanks to persistent work he rapidly mastered ordinance and equipment. At a seminar on damage control, he demonstrated profound knowledge and made an impression on many as a conscientious officer. But an instance of poor preparation for a political exercise cast aspersions on him. This slip at first glance appeared accidental. In fact, it occurred as a result of the carelessness and inaccuracy of this officer.

Honesty, industriousness and tactfulness toward people invariably give rise to a desire in subordinates to emulate an officer. The men, as a rule, see in them not only a commander but a senior comrade.

Sometime ago, officer M. Kulish served with us, but until now they remember him aboard ship as a competent specialist, an able instructor, and a good comrade. He was older than his subordinates, and everyone put himself out for him. Sometimes he scolds someone severely, but the man is not offended. After the affair he knows that with such a commander all

is not lost. Possessing rich experience, Kulish sought to pass it along to his juniors. With the men he shared both the difficulty and the fun. The secret of his success was that he knew how to find an approach to people and was fair in handling them. "A man with a generous heart" was what they said of him aboard the ship.

Among those serving in the Fleet are young men with a secondary and secondary technical education. From their commander they require a knowledge not only of specialized subjects but of military affairs in general. A knowledge of basic events in the world, achievements in science and technology, literature and art helps him to establish a common language with subordinates. Naturally at first, a young officer has little free time to read artistic literature and watch films, but to lag in cultural life is also impossible.

Often this occurs: the men are assembled on a break and are having a conversation about outer space, about works they have read, sports, etc. You feel chagrined at such times, when you don't know something. Remember the advice of seniors: if you read something new and interesting write it down - it will always come in handy. Discussion of a new book, a movie, or a conversation about events in the country and abroad - all raise the authority of an officer, raise his cultural level and broaden the horizons of his subordinates.

Senior officer advise: whenever not occupied, always remember your subordinates, show concern for them, be reserved toward them, and be fair. Anything happens in our service. Anything can happen through the fault of the men, any one of them can commit some misdemeanor, but experience prompts - do not immediately call a major evolution in working with people. Investigate everything, do not sound the alarm, do not inflict punishment right and left. Always act strictly according to regulations.

Life confirms how important it is to take into consideration the moods of people and to quickly respond

Life confirms how important it is to take into consideration the moods of people and to quickly respond to their needs. Once I noticed that Seaman Yakovlev, who was not especially receptive to discipline, was sullen and not talking to anyone. I learned from his comrade that his mother was sick. I had a talk with him and obtained leave for him. So after this the seaman changed. Where did he get his energy and diligence! Did a trip home really change him? Yes, indeed. Several days later Yakovlev /59
gave me his mother's letter to read (she was better) and sought to forgive "old sins." I ask why did he not drop in on me after receipt of the letter. Apparently he was ashamed, because he took much punishment and was convinced he would not be granted leave. Later he served well.

It is considered impossible to build a mutual relationship with subordinates which is always strictly official. In moments of rest and physical work it is possible to entice the men into frank conversation, to joke with them and to have heart-to-heart talks. At these times it is possible to learn much about the life of a man, his desires and ambitions, which permit one in the future to find the right approach to him.

Everyone knows the value of individual work with subordinates. And yet not all of us are able to establish a common language with a seaman, to exert influence over him. It cannot be said that one of the lieutenants seldom visits the crew's quarters, and talks with the men. But sometimes these visits do not bring the returns which we expect. Everything depends on a deep knowledge of a man and the right approach to him.

I wish to cite the experience of the young officer V. Khmara. He devotes much attention to the study of people. When young sailors arrive aboard ship, he endeavors to talk to each one and to ascertain his inclinations and needs. Thereupon he acquaints them with theship and discusses the traditions of the crew and

the tasks which are to be carried out. All this enables Khmara to establish close contact with subordinates.

Successful activity of a subunit commander is unthinkable without the support of Party and Komsomol organizations and without close ties to the men. All this brings him together not only with the officers of the ship but also with all personnel. They know the lieutenant better and they are imbued with respect for him. Especially if he frequently spends his spare time with the men and organizes their leisure.

Participation of an officer in measures, implemented in a subunit on the scale of a ship brings him together with personnel. Some young officers endeavor to by-pass them, and do not use them to strengthen the bond with subordinates and with the personnel.

Summing it up, it should be noted that only the officer who himself precisely obeys laws, military regulations and orders, conscientiously approaches his duties and knows how to work with people has authority with and the respect of subordinates.

MORSKOY SBORNIK, No. 4, 1972, pp. 67-70.

IN THE BALTIC DEPTHS

by Rear Admiral-Engineer I. Zheleznov

During the years of the Great Patriotic War, /67
Baltic submariners were engaged in mortal combat with the enemy for the freedom and independence of our Motherland. With torpedoes and artillery they sank enemy ships in the open sea, in gulfs and straits, in harbors, and in roadsteads. From Kronshtadt they broke through antisubmarine barriers, and forced through net defenses and minefields.

Icebound with small "burzhuyka"* heaters in the compartments, which nothing could heat up, under constant artillery bombardment, the submarines healed their wounds, regrouped their forces, and again went into action. Winter frosts raged mercilessly. Wet

*Translator's note. A "burzhuyka" is a small, temporary heating stove, used in Leningrad during the fuel crisis.

clothes and mittens froze to the metal inside the compartments, and only the men's indomitable will to victory moved the ships forward. After breaking through the Leningrad blockade, we, the young officers who had completed the Dzerzhinskiy Higher Naval Engineering School, got to our duty station in Kromshtadt on foot, over the ice through the bay from Liss'y Nos. Ahead of us, the low, wide sledge with the suitcases dragged along. The driver skillfully steered it between the gullies and shell holes from the aerial bombs and artillery shells.

The Baltic submariners, under the command of Captain 1st Rank A. Orel, Engineer-Captain 3rd Rank Vasil'yev, and Engineer-Captain 3rd Rank V. Korzh, were preparing for the 1944 campaign. Upon our arrival, a reorganization of the engineering department was effected. We were assigned by crews. They named me

engineering officer on the submarine "Shch-307" (Shchuka-307), command of which had been assumed by the experienced submariner Captain-Lieutenant M. Kailinin, shortly before my arrival.

The submarine had gone through the usual drydock. Early in the morning, we arrived with the Commanding Officer at the Kronshtadt Shipyard dock; work was progressing at full tilt.

At the morning flag raising, the Commanding Officer presented me to the personnel. In the formation stood the department heads, young Lieutenants Boris Usikov and Vladimir Semenov, and the petty officers and unrated seamen, who were weather-beaten and hardened in severe skirmishes with the enemy and with the elements.

After brief parting words from the Commanding Officer, I took up the duties of engineering officer, assuming leadership from the senior petty officers. I had to determine the condition of the ship, and get to know the frame of mind of the petty officers and unrated seamen. This is neither simple nor easy for an engineering officer, much less one who is assuming independent duty for the first time.

While learning from the seamen and petty officers, one must know more than they, and must be capable as they; while learning from a department head and division officer, one must know no less and be no less capable than they. Such a maxim was instilled in me by my first submariner mentors.

"Shch-307" (or "Treska," as we called her then) was part of a formation of training submarines. In the very first days of the war she had entered into combat operations. By 1944 the ship had four victories to her credit. One of these was the sinking of the Fascist submarine "U-144". The crew was deservedly proud of this victory. With the exception of us, the personnel of the "Treska" consisted of experienced submariners who had been awarded many government decorations for their combat

engagements. How much there was to be learned from them!

Captain-Lieutenant I. Luganskiy was appointed /68
Executive Officer. Time and again he had served on submarines of the Baltic Fleet in combat operations and had sustained mine damage in forcing the Gulf of Finland.

We quickly became intimate with him. Affairs on a submarine depend to a large degree upon a mutual understanding between the Executive Officer and the engineering officer, since they play an organizational role to ensure the cooperation of personnel in maintaining all schedules, and in keeping the ship in constant combat readiness.

We began to prepare for a cruise. At that time our forces, breaking through a permanent defense position, were successfully advanced westward. The Baltic Fleet was supporting their maritime flank. The mission assigned to the submariners was to interrupt enemy maritime shipping. The "Shch-307", together with other submarines, had to force the Gulf of Finland. The submarine was equipped with mine countermeasures and net cutters developed by innovators - -Baltic submariners. I could not say how many mines, mine mooring ropes and antennas the mine countermeasures deflected, but, since the submarine remained unharmed, in spite of repeated forcing of the minefields, this was, of course, the effect. Whoever has had occasion to hear, "Like a mooring rope, death itself grits its teeth alongside," will understand this very well.

In the beginning of October 1944, we went out, through the fjords of Finland, into the expanses of the Baltic Sea. The enemy was conducting extensive maritime shipping close to the coasts, especially at night. We were ordered to destroy enemy transports at the approaches to Libau and Windau. And it must be said that the crew of "Shch-307" fulfilled this mission successfully. On 7 November, in Naantali

on board the submarine depot ship POLYARNAYA ZVEZDA, Captain-Lieutenant Kalinin reported the sinking of four enemy transports to the Fleet command.

These victories did not come easily to us. The crew fought courageously and heroically. Enemy ships showered us furiously with depth charges. The lights went out, the rivets "wept." The sea water, bursting through them, was bulging the roofs of the tanks and salting the fresh water.

At periscope depth the submarine responded poorly to the diving planes. On long cruises the trim by the bow quickly increased and was maintained only at slow speeds by regulating water of the trim tanks. The hypothesis concerning malfunction of the after planes and their jamming in a certain position during submersion was confirmed.

The gale waves while surfaced did not permit sending men into the superstructure. Now here in Windau Roadstead the watch officer located in the periscope four transports lying at anchor, protected by approximately 10 escort vessels and boats. The roadstead is shallow, control unsatisfactory. Repeated efforts to proceed to the salvo point submerged at periscope depth, with a depth reserve beneath the keel providing normal torpedo speed, proved futile.

The Commanding Officer decided to leave the protective zone and repeat the attack closer to twilight, so that it would be easier to break away from the ASW forces after the attack, and also to examine and study more carefully the depths of the roadstead. With Boatswains Mate Yashchenko and the damage control officer, Warrant Officer Obukhov, we had to maintain the submarine at depth with neutral trim after a four-torpedo salvo.

We worked out the effects of each on the diving planes, the trimming system, the Kingston valves and

air vents of the quick-diving and compensating tanks, and also on their blowing. We determined when to increase speed in order to utilize more effectively the trimming moment at the jammed after planes.

We reported the proposals to the Commanding Officer of the submarine, and he approved them.

Navigation officer Usikov, Executive Officer Luganskiy and the Commanding Officer calculated the most likely salvo point and the course to it. Torpedoman Semenov, together with his personnel, once again verified the readiness of their department for the torpedo salvo.

On 16 October the submarine was headed for its objective, hiding from the escort vessels in the dark Baltic waters. Only now and then, and momentarily, Navigation Technician Volkov raised the periscope for the Commanding Officer, so as to check the calculated data with the actual position of the ship relative to the target and the defense forces. There was silence in the compartments. The submarine was at the salvo point. The torpedo salvo shook the hull. The pumps began to work; air from the first compartment began to hiss and whistle through the voice tubes. The main propulsion motor began to drone from the increase in speed. The submarine was in a turning circle. All attention was on the trim indicator and the depth gage. I observed how the boat squatted. Now the depth gage indicator was creeping to a dangerous depth--when the antennas would appear above water. We started to fill "on the double," although we knew that the effect from this is not great. And at this point, the deafening explosions of the torpedoes resounded, one after another. This was our salvation. The escort ships noisily rushed past toward the sinking transports. /69

The breakthrough of a submarine into the shallow Windau Roadstead utterly stunned the enemy, who had not even suspected the possibility of launching a torpedo attack against him here. Our submarine quickly withdrew to a depth of 20 m and was literally crawling on sandy bottom.

We trimmed our "Treska" and rose to periscope depth. In the submarine it again became quiet. The periscope was raised for the Commanding Officer. In the deck log they recorded: "One transport sunk, a tanker and a transport damaged."

The Executive Officer, navigation officer and I, in turn, came up to the periscope for a moment. Of the four transports, three remained afloat. Of these three, a hugh transport sank at the stern, a second was rolled over on its side. Escort vessels were scurrying back and forth around them. The periscope was lowered. We had to leave this area as quickly as possible. The enemy could intercept us and cut us off from safe depths. We departed from the area. Far from shore we surfaced and charged the service battery. After ventilating the battery and the compartments, we lay on the bottom.

At night on the second day the weather permitted the Commanding Officer to dispatch the men to the superstructure to repair the diving planes.

Three volunteers were selected to carry out this task: the head of the quartermaster-signal section, Petty Officer 1st Class Pavel Bogdanov--a physically strong, quiet man; the head of the engine section, Petty Officer First Class Nikolay Panin--an outstanding locksmith and tall, physically strong, able to keep his balance on the narrow submarine deck under the impact of any wave; and our gunner, Petty Officer 2nd Class Aleksey Karev.

United by one solid aim, clad in diving suits and masks, with suspended instruments tied around them, they reached the stern and dove to the superstructure. They discovered a disconnected Hooke's joint. There was no coupling bolt in the pockets of the superstructure. Warrant Officer Obukhov dismantled the crank bearing of the high-pressure air compressor, and they transferred the crank bolt into the superstructure. The compressor was inside the submarine and there would be time for its repressurization, but the rudders are

needed immediately, and it is impossible to keep the men in cold water for a long time. They communicated by rapping and by gestures; in their mouths were the mouthpieces from the masks, and they breathed oxygen from the respiratory bag. At the signal they turned the rudders manually and electrically. The work was finished; the submarine was again controllable.

At night we charged the battery underway. Using diesels, air was circulated through the batteries to reduce the temperature and gas them. Because of this, it was cold in the forward compartments, but in the engine room it was hot--up to 40°C. Decreasing the charging current is undesirable, for it is necessary to replenish the electrical energy reserve of the storage battery as quickly as possible. The maneuver area is on an important enemy shipping lane. At any time the general quarters or crash dive signal may sound, and we didn't have to wait long for this.

General quarters! The Commanding Officer, watch officer, and signalman were on the bridge. This was a torpedo attack on three ships. The target was selected. Upon the command "Fire," two torpedoes sped from the aft torpedo tubes toward the transport. With the "scrin," the submarine submerged at once, simultaneously evading the escort vessels about to ram. The explosions of the torpedoes sent by Warrant Officer Potashey, and Seaman Sarana thundered. Propellers roared past overhead. Then...all was silent. Suddenly Sonarman Vasyagin reported the sound of transport propellers. Quickly we surfaced, simultaneously preparing ourselves for another torpedo attack, with torpedoes from the forward tubes. /70

Petty Officer 1st Class Kukushkin and Senior Seaman Tarasov quickly prepared a twin-torpedo salvo. There was a brief attack, and again explosion and flame proclaimed our victory in the vast expanses of the Baltic Sea.

....The enemy was pressed close in toward the coast in shallow water, and he was making only night passages.

The protective escort screen was intensified. All evidence suggested that the submariners and aviators of the Red Banner Baltic Fleet were not allowing the Germans to support, from the sea, their Kurland grouping, which was being pressed toward the sea by our forces.

In January 1945, after one of the attacks, patrol vessels dropped bombs on our "Treska" for 48 hours. We had barely succeeded in breaking away from the enemy when he discovered us anew and again continued to bomb. But the members of the crew had no fear or panic; each continued to do his own job systematically.

In January 1945, the count of "Treska" victories grew. The Government placed a high premium on the combat merits of our crew. Submarine "Shch-307" was awarded the Order of the Red Banner; the title of Hero of the Soviet Union was conferred upon the Commanding Officer, Captain 3rd Rank M. Kalinin. On the chests of all the officers, petty officers and unrated seamen decorations and medals glistened.

With the termination of the war we reconditioned our Red Banner submarine, "Shch-307," and transferred it to young successors. The unrated seamen and petty officers were transferred to the reserve, and the officers were assigned, with promotions, to other ships and staffs.

The present generation of sailors are ploughing the world ocean in new submarines, carrying the baton handed down to them by their elders, improving and multiplying their experience acquired in battle.

Photograph - p.70, Caption: Sacred relics.

MORSKOY SBORNIK, No. 5, 1972, pp. 48-50

OCEANIC RADIO CALLS

by Captain 3rd Rank-Engineer M. Yegorov

"Comrade Captain-Lieutenant, the radio transmitter is not functioning," reported Seaman N. Cherenev. /48

"What's wrong?," inquired the Head of the Observation and Communications Department, Vyacheslav Dmitriyevich Luzhetskiy.

The radio telegraphy operator remained silent.

Such dialogues occurred sometimes in the first weeks of a lengthy ship cruise. On the eve of departure, a young group of replacement radiomen had arrived. Molding them into specialists began at sea. The subject of how to commission them more quickly was discussed at a Party meeting. Captain-Lieutenant Luzhetskiy felt a dual responsibility. Both as secretary of the Party organization of the ship and as Department Head he was obliged to do everything in order to assure uninterrupted communication with the distant shore.

There were only two Communists in the Observation and Communications Department: Luzhetskiy and Petty Officer 2nd Class M. Gilev. They were also saddled with the primary burden of concern. They devoted their primary attention to individual work with the men. It yielded the most effective results.

From the beginning, the young seamen were weak in maintenance training. /49 Luzhetskiy considered it a Party duty to pass on to the men his own rich experience. He spent a particularly long time with Seaman K. Kudrin and taught him to locate malfunctions. He would lay out a document and pass over a diagram with a pencil.

"Check this resistance, right here."

The seaman glanced at the diagram and located the desired resistance in the wiring in the transmitter assembly. He made his check.

"Everything is all right," he answered.

Luzhetskiy, strictly observing the sequence of operations, verified the integrity of the components and the readings on the monitor. Each time he approached a defective area, the seaman's interest was aroused. But as soon as the malfunction was discovered, interest flagged. Kudrin might make a rather careless solder, haphazardly secure the assembly and leave the instruments right there. The Department Head, knowing this weakness in his subordinate, observed his work attentively and taught him efficiency and precision. Gradually he cultivated in the seaman those important qualities so essential to a radioman.

And so this was repeated until the specialist learned to repeat everything correctly and efficiently. Each time there was any trouble, however, the captain-lieutenant personally assured himself of the accuracy of the proffered "diagnosis," and only then permitted repairs to be made. He did not do this because he lacked faith in subordinates. On the contrary, Luzhetskiy considered the supervision and advice of his superior obligatory.

The personal example of a Communist also plays a decisive role under cruise conditions.

"I remember, we got caught in a heavy storm," the Commanding Officer recounts, "with pitching and vibration. The insulation was broken. Vyacheslav Dmitriyevich again played the role of pathfinder. He did not leave the radio shack until he found the defect and eliminated it.

"Tropics are tropics. They continuously tested the radiomen. Heat and high humidity had an impact on the men. I hardly looked anywhere that there wasn't some hitch in the work. But whatever troubles were occurring, communication to shore was maintained."

The Communists exerted considerable effort to increase the expertise and maturity of the young men. They deliberated how to immediately assemble all off-duty personnel for training exercises. But the question arose: how could we arrange a work space for them?

Captain-Lieutenant Luzhetskiy found the solution. He suggested an arrangement for the simultaneous training of seven men. Mikhail Gilev and Vladimir Kudrin implemented this idea. In the cramped radio shack they succeeded in fitting out work spaces. Now, after watches, the new men had the opportunity to train themselves in receiving and transmitting signals.

At the initiative of the Department Head they also used a tape recorder for self-evaluation. One day during one of the training sessions Petty Officer 2nd Class M. Gilev reproached Seaman A. Pavlov:

"You have the letters 'P' and 'F' alike."

"I did not notice this," the seaman admitted.

"Listen to the recording of your transmission, and reconcile yourself to it," the petty officer switched on the tape recorder.

Pavlov was convinced that he had actually transmitted unclearly.

After the lengthy cruise they heard the report from the young Communist M. Gilev at a Party meeting. He recounted how the radio operators had achieved reliable and clear communications. When audibility worsened, the specialists utilized two receivers tuned to different frequencies. If the signal did not come through on one frequency, they received it on the other. Thus two men successfully coped with the task. The petty officer shared the experience of training the young seamen, mentioning the notebook in which they recorded all the malfunctions which had occurred at sea, where and what they replaced in the equipment. These notes were /50

an excellent textbook. Gilev's expertise and endurance contributed to the improvement in communications. Sometimes, during radio silence, when the specialists were engaged only in reception, he sat down near a young seaman and recorded this text. Standing in for the new man, the petty officer eliminated errors. On the one hand, this was a lesson, and on the other it increased the reliability of communications.

The secretary of the Party organization, Luzhetskiy, directed the efforts of the Komsomol organization in the education of the radiomen, and taught the young activists to be well-informed on shipboard activities.

Once seaman N. Cherenev did not "hear" a correspondent, noting that the call had not reached him. As it turned out, he still had not acquired the necessary skills. This was discussed at the subunit Komsomol meeting. The comrade's negligence elicited a stormy reaction from his shipmates. The Komsomol members appealed to the Department Head with a request to conduct training sessions more often under interference conditions.

The ship ploughed the ocean expanses for a long time. The level of training of the young specialists grew. Socialist competition, led by the Communists, also contributed to this. One could justifiably call Captain-Lieutenant Luzhetskiy--an otlichnik*2nd class specialist --a pioneer.

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*Otlichnik - One who has been declared outstanding by his CO in combat and political training.

On one of the burning tropical days a radio message was received aboard ship: "For outstanding organization of communications, I express my appreciation to the Commanding Officer, Head of the Observation and Communications Department and to the entire crew. Commander in Chief of the Navy, Fleet Admiral of the Soviet Union, S. Gorshkov."

Now the ship lies at the quay. On its deckhouse brightly shines the badge of excellence. Through thousands of miles the sailors proudly retained this lofty title. As before, the most advanced in the crew are the communications personnel. Those who had brought glory to the crew were transferred to the reserve, and were replaced by others. The radio shack became a "small training detachment."

At any moment one can hear the alarm signal. The pupils of Communist V. Luzhetskiy are going on radio watch and will reliably maintain communications.

MORSKOY SBORNIK, No. 5, 1972, pp. 59-62.

SUBMARINES BREAK THROUGH THE BLOCKADE

by Captain 1st Rank D. Sokha (Reserve)

The submarine approached Sevastopol. She was delivering 40 tons of ammunition and 35 tons of aviation fuel to the defenders of the city. /59 It was daylight and the submarine proceeded up the channel submerged. Her hull quivered from the distant explosion of depth charges. Enemy boats were conducting preventive bombing. But now the bomb bursts suddenly began to get closer. The submarine tossed, lights went out and water began to seep into the after compartments. The Commanding Officer of the ship, Senior Lieutenant I. Trofimov, decided to leave the channel and force the minefield at depth. The risk was great, but there was no other way out. A mooring rope scraped along the starboard side, but the men did not falter. The tension on the men had reached its limit but everyone continued to perform his duties at his battle station.

The minefield was astern. Suddenly the load on the electric motors sharply increased. The vessel began to answer the helm poorly. The rudders had become entangled in an antisubmarine net. By twilight, after great effort, they had freed from the net only the starboard screw. The D-5 entered Strelets Bay under one diesel. The crew started unloading the ammunition and pumping out the aviation fuel. Petty officer of the group Pomazov and Seaman Slastin worked under water for two hours freeing the second line of shafting.

June nights are short. They did not succeed in completing the unloading of ammunition and the reception of wounded that evening. At dawn they lay on the bottom. The long hours of waiting dragged on. It was stifling and the gasoline fumes stupefied. The wounded were partially affected. With the onset of darkness the submarine surfaced, transferred the remaining cargo, took on board the wounded as well, and proceeded to Novorossisk.

It was not easy for submariners of the Black Sea Fleet to deliver various cargoes and fuel to the city, which was besieged by land and blockaded by sea and air.

The force of resistance of the defenders and duration of the defense depended to a great extent on supplying the Sevastopol Defense Region with everything necessary. From the first days of the defense the Black Sea Fleet provided the transportation.

In the spring of 1942 the enemy intensified his strikes against our transports and ships, at sea and at their bases. The Hitlerites concentrated more than 50 torpedo and patrol boats in the ports of Ak-Mechet, Yevpatoriya and Yalta, and up to 150 torpedo bombers at airfields in the Crimea. Italian ships were called into blockade operations: a flotilla of submarines based at Yalta and boats of the 10th Flotilla - saboteurs from the Foros area. Transports could no longer sail to the beseiged city. The full burden fell upon the submarines, but even their entry into Sevastopol and unloading became more and more difficult. Taking into account the developing situation, the Fleet Commander-in-Chief decided in April to use the submarines to feed the garrison of the city.

A special commission approved the most acceptable transport option, according to which large and medium submarines kept only 2 torpedoes and 50% of their artillery ammunition, and "M" class submarines unloaded all torpedoes and all ammunition. Reserves of fuel, fresh water, provisions and means of regeneration on board were held to a minimum. An inventory of cargoes, their dimensions and weight, method of packing, and procedure for delivery and transport was compiled. For the compartments "loading lists" were compiled, with instructions on how to arrange the cargoes. The card was entrusted to the compartment head, who was responsible for the correct arrangement and stowage of cargo. These measures permitted achievement of a useful carrying capacity of up to 90-95 tons in the larger submarines. /60

Planning of the transport and its supervision were executed by the Fleet staff. The transport of cargo was not a simple task. It was imposed upon the submarines for the first time. The men had no experience. The transport of gasoline in submarine tanks was quite dangerous: it destroyed rubber seals and its fumes, penetrating the compartments, had a toxic effect on the men and created a serious danger of ignition from sparks from the electrical equipment.

But the defenders of Sevastopol needed aid.

In order to accelerate the shipments, the submarines crossed the sea surfaced at maximum speed. They submerged only to avoid enemy attack. Unloading took place at night. The submarine crew participated in it. Until dawn they strove to transfer cargo and receive evacuees. In event of delays, the ship lay at the bottom during the day.

Until 31 May, submarines were unloaded in the South Bay. On 1 June the unloading area was shifted to Strelets and Kamysh Bays, and subsequently to Kherson Bay and in the area of the 35th Battery.

Submarine L-4 (Captain 3rd Rank Ye. Polyakov) and submarine D-4 (Captain-Lieutenant I. Izrailevich) were the first to arrive at Sevastopol on 9 May.

At the end of May, when the demand for the transported cargo rose significantly, they began to use medium and then small submarines. During the course of that month, they made 13 trips and delivered over 900 tons of ammunition and provisions. In June the submarines transported gasoline as well. There were no explosions or poisoning of the crew during the transport of gasoline aboard large and medium submarines. The situation with the small submarines was more complicated, and there were several accidents aboard them.

On the M-60, gasoline vapors exploded and a fire started. Control room personnel received severe burns, and the clothing of some caught fire. The Commanding Officer, Captain-Lieutenant B. Kudryavtsev, after surfac-

-ing, ordered the victims to jump into the water. He himself led the damage control effort of the ship. Disregarding danger, the submariners carried burning boxes containing mines topside from the compartment and extinguished the fire.

On 23 June, before a trim dive, an explosion of gasoline fumes occurred on submarine M-33. As a result, some machinery was damaged, and some of the men were seriously injured. But the bold and decisive actions of the crew and the Commanding Officer, Senior Lieutenant D. Surov, saved the ship.

The third accident occurred on board the M-32 (Captain-Lieutenant N. Koltypin, Commanding Officer, on 23 June. An explosion of gas fumes took place in the control room while the submarine was being trimmed before departure from Sevastopol. Because of the accident, the MALYUTKA was not able to leave Sevastopol before dawn and had to remain on the bottom for 16 hours. Only because of the exploits of N. Pustovoytenko did the affair not end tragically. These are described by the writer L. Sobolov in the essay "Steady, petty officer!"

In May and June, 24 submarines were brought in for shipments. During the most difficult period of the defense, they made 18 trips and delivered to the people of Sevastopol about 4000 tons of ammunition, provisions and gasoline. On the return voyages they carried more than 1300 wounded soldiers, women and children.

Each run was a feat in itself, a clear example of devotion to the Motherland and to military duty. You know, the enemy lay in wait everywhere for the submarines. Some of them had to evade strikes by ASW forces 16 to 18 times during the passage.

Thus, on one trip alone, 496 depth charges were dropped on submarine Shch-205, commanded by Captain-Lieutenant P. Sukhomlinov. And, from 1-4 June, five submarines, breaking through to beseiged Sevastopol were pursued 36 times. Enemy aircraft and ships dropped 3839 bombs on them. /61

Here is a brief account by officer A. Markelov of one episode in the passage of submarine L-4 to Sevastopol. He served at that time aboard her as head of the quartermaster group.

The boat, maintaining concealment, proceeded at slow speed. And suddenly there was an explosion... a second... a third. The hull vibrated. Light bulbs broke and fragments began to fall resoundingly. Pieces of cork poured down from the deckhead. And the explosions were closer and closer, their impact with the hull sharper...The Commanding Officer took evasive action but the enemy relentlessly bombed the submarine. A leak appeared in the fifth compartment due to a nearby explosion.

The attacks continued for more than an hour. It became unbearably stuffy. The smell of neglected bandages, sweat and footcloths was added to the smell of gasoline. Many began to get dizzy. The men choked from an insufficiency of oxygen. But it was impossible to surface.

Finally they succeeded in disengaging from the enemy and the sounds of the boats faded away. The chief danger was past. A pump was started to dry the hold in the fifth compartment. The submarine rose to periscope depth, and, after scanning the horizon, to diving trim at full buoyancy. But it was not possible to proceed on the surface for long. Three times again, aircraft drove the L-4 down under.

Thus passed the sixth voyage of the submarine. Then it delivered to the defenders of the city 95 tons of cargo, and on the return trip took out 85 wounded and evacuees. In all, the L-4 made 7 voyages to Sevastopol.

After 7 trips, submarine S-32, under the command of Captain 3rd Rank S. Pavlenko, transported about 500 tons of ammunition, gasoline and provisions, and evacuated 140 people from the city. The courageous crew was not able to complete the 8th trip. On 26 June the S-32 was sunk by the enemy.

Seven times the blockade was run by submarine L-23 (Captain 3rd Rank I. Fartushnyy); 6 times by the L-5 (Captain-Lieutenant N. Belorukov) and the D-4; 4 times by the 1-24 (Captain 3rd Rank G. Apostolpol); 3 times by the D-5, A-4 (Captain-Lieutenant S. Trofimchuk), M-31 (Senior Lieutenant Ye. Rastochil') and the M-118 (Captain-Lieutenant S. Savin); and twice by the Shch-203 (Captain 3rd Rank V. Nemchinov), Shch-209 (Captain-Lieutenant V. Ivanov), Shch-212 (Captain-Lieutenant I. Burnashev), M-32, M-33 and M-112 (Senior Lieutenant S. Khakhanov).

The last to break through to Sevastopol, delivering cargo there, were the L-23 and the Shch-209. They transported 184 persons on the return. /62

Of the 8 submarines sailing to Sevastopol from 29 June to 2 July 1942, in order to take part in the evacuation of the defenders of Sevastopol to the shores of the Caucasus, only the A-2 (under the Commander, 6th Submarine Group, Captain 3rd Rank A. Guz) and the M-112 were able to approach shore in the area of Khersones Bay.

Here is what the Commanding Officer of the M-112, S. Khakhanov, has to say about this voyage.

The entire shore from Cape Fiolent to Khersones Light was in smoke and fire. At various points hand-to hand fighting raged.

The A-2 dove to a depth of 25 meters and proceeded along the shore to Khersones Bay. Shells and bombs continuously exploded at various distances from the hull. With the onset of darkness the submarine rose to diving trim. In the area of the 35th Battery, in Kamysh and Kazach Bays, fierce battles raged. A web of machine gun and automatic weapon tracers ringed the shore, which was enveloped in the light of conflagrations. It became clear that we could not reach the moorage in Khersones Bay. But nevertheless the formation commander directed the submarine to shore. At .5 cables from the water's dge, they stopped...from the submarine they began to send signals to shore. In a little while they received

an answer.

Guz began to converse with soldiers at the water's edge. After 20-30 minutes the first group approached the submarine on a raft, and 15 minutes later two more groups. They were guardsmen from the 1st Anti-aircraft Regiment. The Germans noticed the boat. They opened fire on it with machine guns and automatic weapons. At 230 the moon rose and the submarine became quite visible from the shore. Enemy artillery and machine gun fire intensified. The submarine could no longer remain dead in the water. The A-2 moved away from shore and at 3-4 cables from shore began to maneuver. The explosions gradually ceased. At 0230 on 3 July we surfaced, but they quickly resumed artillery fire on the boat. We dove to a depth of 25 meters. This was very timely because enemy boats came and started to drop depth charges. In all we were able to remove 21 men.

"The heroic defense of Sevastopol," wrote Pravda on 4 July 1942, "comprises one of the brightest and most brilliant pages in the history of the Great Patriotic War of the Soviet people against the German-Fascist invaders. The exploits of the residents of Sevastopol, their wholehearted courage, their selflessness, and their brilliance in the struggle against the enemy will live in the ages, and crown them with immortal glory."

The Black Sea submariners made a modest contribution to the glorious chronicle of the heroic defense of Sevastopol.

Photograph caption, p. 61: A submarine puts to sea with a cargo of fuel for besieged Sevastopol.

MORSKOY SBORNIK, No. 6, 1972, pp. 48-51.

FIRST STEPS

by

Lieutenant Ye. Fortunskiy

The towering steep-sloped hills surrounding the /48
bay from three sides had become overgrown with chestnut-colored brushwood stubble. Warships docked at pierside appeared to be getting chilled. A slight sea breeze lazily stirred the drooping segment of their flags. The dark waters of the bay seemed impenetrable. The grim beauty of this spot struck me at first sight. There was something here that I had already encountered *before* in the North and on the Baltic, and yet, at the same time, there was also something special about it which I had never seen before.

It was here that I was to begin my tour of duty as a lieutenant in the Soviet Navy. I looked for my ship the DMITRIY POZHARSKIY, and read her name on the stern at a distance. She was to be my home from now on. Here are new friends with whom I would share my successes and sorrows. The men I would command I would also meet here for the first time. Here, my troubles..."take heart", I tell myself. Beneath my feet is the deck of the cruiser. I exchange greetings with the watch officer. I am reporting aboard.

"We have been waiting for you, comrade lieutenant," /49
says the officer with a smile.

A messenger appears, takes my luggage from my hands and leads me to a cozy, freshly-cleaned cabin. I was immediately pleased with these quarters. I was drawn to the bunk. I touched it and felt the neatly drawn sheets. Yes, they were expecting me!

Within a short time, the head of my department - my

immediate superior - dropped in to see me. He was interested in how I was doing and how things were going. He then invited me to meet the captain of the ship.

...the captain, who was seated behind a huge desk covered with books and notebooks, rose to meet me as I entered. I introduced myself and as we shook hands he stared intently at me.

He invited me to sit down and began to ask about what I had studied in school, how well I had done there, what I knew and what I could do well. He then talked about the history of the ship and the tasks fulfilled by the crew.

"You will encounter difficulties," he said warmly, "don't shirk them."

He then began to talk about the tests I had to pass in order to receive authorization for independent command of my subunit and to stand duty watches. He advised me on the best way to plan training and to work with those under my command. I had already thought about all this a great deal myself, but each word from the commander's mouth sounded new, ponderous and significant. I was beginning to acquire some confidence in myself. Everything will be all right, I thought.

I spent the entire first week becoming acquainted with my duties and obligations, as well as meeting personnel. So far I had mostly been an observer. I tried to understnad what type of men I had under my command. They all looked the same outwardly, but were all very different by nature. How was I to see that they met their responsibilities in the best way they could?

Initially, I did not have any official contact with those under my command. Then the captain of the ship, his political officer and the members of the Party Bureau came to my aid. They advised me to rely more on my petty officers and Komsomol activists -- to regard them as my assistants. These senior comrades patiently taught me how to conduct training, exercises, political studies and political information. They minutely

analyzed the omissions and mistakes I made in working with my subordinates and prompted me on how to more quickly rid myself of them.

I noted that some navymen violated uniform regulations by showing up at morning inspection in dirty work clothes. Certain petty officers were lax with those under their command. They made few demands of them. At a meeting of petty officers, I immediately sensed that many of them were bothered by these problems. I did not have to say very much about the petty officers' role in educating navymen. Petty Officers 1st Class G. Zvyagin, A. Proshkin and others sharply assaided their comrades for dereliction of duty. They told them that they had to improve cooperation with their subordinates. This conference was also very helpful to me. It convinced me that duties could be carried out successfully only by relying on the petty officers.

I did not always succeed in resolving these or other questions very quickly. Possibly it was because I was not firm enough at times in giving orders. Indeed, bending the will of dozens of men to one's own will and then combining the efforts of all in solving a common problem is no simple matter. It requires the know-how that one acquires from experience. And even this is not sufficient. The fact that the unrated personnel and petty officers tried to conscientiously fulfill their duties encouraged and inspired me. I myself strove to follow the captain's advice: be highly principled in all things; never denigrate subordinates; be tactful, polite and self-restrained and combine high standards with respect for the men.

It seemed to me at first that the knowledge I had acquired in school was all I needed to discharge my service obligations. But I soon encountered many nebulous problems aboard the cruiser that could not be resolved in a single training program. Therefore, I had to seriously begin to study the machinery and systems, organization of duty aboard ship, the theater and several aspects of tactics. The captain insistently advised me not to be ashamed to learn from those under my command.

I must admit that it was very difficult at first to ask a petty officer or sailor for help. I feared that I would undermine my authority by doing this. But common sense prevailed. The petty officers helped familiarize me with many details in quick order and I succeeded in passing the prescribed tests on time. /50

Petty officer Zvyagin helped me most of all in getting to know the ship's layout. In our spare time, we walked around the ship's decks and platforms. These "strolls" helped me very much.

To better acquaint me with their equipment and weapons, I invited the commanders of the battle stations in turn. They spoke about the disposition of the instruments and machinery, the operational features of the equipment. They shared their experiences with me. Then they took me to their battle stations, where they traced all communications and power lines for me.

This type of training is also useful in that it enables one to become better acquainted with those under his command and to more thoroughly study their nature and businesslike qualities.

Only after I had passed my tests did I feel like a full-fledged member of the crew. Small though it was, this was my first victory. Those who had helped me rejoiced with me. I should like to stress that subordinates are never indifferent toward their chief. They rejoice in his successes and suffer when he fails or makes mistakes.

After he has passed his test, a junior officer's duties increase. New demands are made of him and new anxieties arise. New difficulties also arise. One such difficulty is the time problem. Strange as it may seem, the officer generally has more free time during his first two months aboard ship. He is not given too much work or made to stand many watches, in order to enable him to better prepare for his examinations and to become more thoroughly involved in the life of the subunit. This time must be used to maximum advantage.

In planning personal training, I try to make best utilization of general shipboard procedures in the interest of study. Gradually, shipboard routine became my helper. It enabled me to work better and more purposefully.

The captain of the ship, using concrete examples, taught me how to conserve my energy, to select what is most important and concentrate my efforts on this. I especially appreciated the usefulness of this advice when I was chosen as a member of the Komsomol committee and was put on one of the ship committees.

It would have been considerably more difficult for me had I not had such experienced officers as Captain 3rd Rank V. Kitzyev and A. Perepelitsa at my side. Through their advice, instructions, words and deeds, they helped me acquire experience, broaden my knowledge and avoid making serious mistakes and omissions.

Of course, there were still many difficulties with my work. Organizaing Socialist competition was one example. Setting limits and assuming obligations was only the beginning. But how to increase the activity of my subordinates and direct their efforts toward fulfilling the objective?

There are no ready-made prescriptions for this. We therefore need the advice of our senior personnel, to study the experience of others and to exchange opinions. Only in this way can we acquire the know-how to properly influence an individual. Daily (in compartments) and weekly (in teams and groups) summation of results plays a large part in this. It is at these summations that unrated seamen and petty officers must be informed how well they are performing their duties. In addition, each person's work is evaluated, outstanding workers are noted, mistakes analyzed and ways to eliminate them indicated. Personal experience has convinced me that leading Socialist competition of subordinates is a very delicate matter. As of now, everything is not going for me exactly as I would like it. I still have much to learn.

As midshipmen, we often dreamed of the sea, long ocean voyages, Arctic ice and tropical rainfalls. But hardly any of us imagined the amount of important and inconspicuous, tedious work that has to be performed between trips to sea: replenishing stores, making repairs, checking and adjusting equipment, training subordinates, studying on one's own and many other things. And each of these tasks must be taken seriously and performed in the best way possible. In so doing, I have become thoroughly convinced of this through experience. Once at sea, a piece of equipment broke down only because I had not personally inspected the quality of the repair work performed on it. And each seaman knows what this can lead to.

An officer has great responsibility. Indeed, he is responsible not only for his own actions, but also for the actions of his subordinates, as well as for the combat readiness of the subunit entrusted to him.

The captain of the ship was right when he said that /51
one must begin his service from the very start and in earnest, with no allowances made for youth and inexperience. Much depends on each man and the cause we are serving is too important. I recalled once again his first words, spoken at our first meeting: "Today you are a lieutenant, but before long you will have to command your own ship. Though you still have not set the course your ship will follow, prepare for it now. Thoroughly investigate everything in its minutest detail, even those matters which at present seem to be of no consequence. No one can foresee the type of situation that will develop in your very first battle. Love your ship and study military science in the proper manner." These words have been etched in my mind for all time.

...Standing by the ensign staff, I mentally reflect on the road I have traveled. My first steps as an officer aboard this cruiser have taught me many things. Ahead I see the broad expanse of the ocean and the Soviet naval ensign proudly flying above it. My way of life, fate and naval career are tied up with the sea.

MORSKOY SBORNIK, No. 6, 1972, pp. 56-57.

AN ANALYSIS OF AIRCRAFT NAVIGATION ACCURACY

by

Major N. Rudomanov,
Military Navigator 1st Class

One of the basic elements of aircraft navigation /56
reliability is its accuracy, determined by the quadratic radial error. A distinction must be made between the required navigation accuracy (the accuracy with which the crew knows the aircraft's position. assuring execution of the flight mission) and that which is available, characterized by the composition of the aircraft's navigation equipment.

We will analyze the accuracy in determining an aircraft's position through the use of radar (which enables us to find the range to a landmark from the marks on a scale) and navigation systems in which the course line is interpolated by the coordinates of two points along the flight path.

In determing an aircraft's position by radar, we shall consider the most widely employed method-- determining its range and bearing to the radar reference point. In this case, the mean quadratic radial error is calculated from a well-known equation.* In using /57
it, we find the value for the following conditions: a navigator working with a chart with a scale of 1:2,000,000; a mean quadratic radial error in determining the aircraft's position: 3; 5 and 9 KM respectively.

Thus, taking into account the potentialities of airborne radar, we must select navigation reference points close to the course line and at a distance of 50-100 KM.

*See "Aircraft Navigation", Military Publishing House, 1955.

In most cases, radar is the only means for correcting navigation equipment. Therefore, to increase navigation accuracy and reliability, it is advisable -- sometimes even with a loss of flight time -- to select a flight path prior to departure for a designated area so that the aircraft may determine its position most accurately.

What are the possibilities for a navigation system actually carrying out such an operation? Frankly, they are vast. Thus, execution of the tasks "Flight to the designated area" and "Correction of coordinates" enables us to use the navigation system to determine the position of the aircraft with greater accuracy than other dead reckoning instruments. In this case, the total mean radial error in calculating the aircraft's position is expressed in the form:

$$r = 1/\overline{r^2_{cc} + r^2_{dr}},$$

where r_{cc} is the mean quadratic radial error in correcting coordinates; and

r_{dr} is the mean quadratic dead reckoning error

The total value of r_{dr} depends on the accuracy in determining the geographic coordinates of the turning (initial) point of the flight, their input into the system, entry of the course into the system, and entry of the drift angle and the ground speed from the aircraft's instruments.

For example, with a mean quadratic error in determining the geographic coordinates of the turning (initial) point = 1"30"; and the mean quadratic error for their input into the system = 30"; = 0.5; = 1°; o.4%, we obtain: r_{dr} = 0.015S + (with S 400 km) and r_{dr} = 0.02S (with S 400 km) (S is the distance the aircraft travels from the last correction point).

The process of correcting an aircraft's current coordinates entails determining the geographic coordinates of the radar reference point, their input into the system and aligning the electronic crosshairs with the selected radar reference point. Moreover, any error in the aircraft's heading affects the accuracy of the correction.

It is well-known that an error in determing the turning point coordinates has the greatest effect at ranges of 50-80 km to the radar reference point. This error decreases as the distances to the radar reference point increase (R_r 150 km), whereas the errors dependent on and R_r increase greatly.

Taking into account what we have said, the mean quadratic radial error in determing an aircraft's position is approximated by the function $r_{ap} = 0,02S + 2$.

The above equation characterizes the available navigational accuracy, assuring an aircraft's entry into a circle having a radius r_{ap} with a probability of 0.63. To increase this probability to 0.95, for example, we have to increase the circle's radius 1.73 times. This is why navigators constantly search for ways to increase navigation accuracy. They carefully determine the geographic coordinates of the reference points from large-scale charts; correct them to spot radar reference points located at a distance of up to 100 km from the flight path axis, and select a flight path and flight profile so as to make it possible to periodically correct the aircraft's position. However, when heading for a designated area, any error in the indicated navigational accuracy in all cases should be compensated by increasing its limits to a certain value, dependent on r_{ap}.

MORSKOY SBORNIK, No. 6, 1972, pp. 58-69

A COLLISION OF SHIPS IN A ROADSTEAD

by

Master Mariner G. Yeropkin

On 27 January 1971, the fishery research vessel POSEIDON collided with the tanker KERCH' in the roadstead of the port of Odessa. At the time there was a 2-point northwest wind blowing and a fog which limited visibility from 100 to 1850 meters.* /58

*NB. The abbreviation kab for kabeltov is used throughout this article. This unit of measurement equates to 608 feet or 185 meters. The translator has converted the kab distance into meters wherever possible.

The POSEIDON (with a 3700-ton displacement) had a pilot on board but was under the control of her captain. She was sailing out of Kherson and conducting sea trials.

At 1500, upon approaching the port of Odessa, the POSEIDON captain radioed the signalling station that his ship would be arriving in the roadstead within an hour and requested permission to drop the pilot.

At 1510, the POSEIDON was alongside the Sychevskiy buoy. She was proceeding at 14 knots and set a true course of 250° for entry into the roadstead.

At 1600, the first mate assumed the watch. Visibility was 100 meters. The ship's fog signals were sounded and the captain maintained radar surveillance.

The tanker KERCH (with a 22,100-ton displacement)

was laden with crude oil. She was lying at anchor in the roadstead not far from the POSEIDON'S recommended approach course. The captain and his first mate were on the tanker's bridge. They took turns conducting radar surveillance of the situation in the roadstead. Lookouts were posted on the tanker's stern and forecastle. They sounded fog signals.

Having been informed of the POSEIDON'S approach, the signal duty officer attempted to make radio contact with the ship in order to more precisely determine her time of arrival in the roadstead and to apprise her of the situation there, particularly regarding the tanker KERCH; which was anchored close to her course. The POSEIDON, however, had shut down communications.

At 1615, the signal duty officer observed the POSEIDON'S echo on the port radar screen and saw that the ship was rapidly approaching the tanker. He relayed this information to the KERCH and recommended that the tanker sound her fog signals more frequently. The tanker's crew did this. They also attempted to make radio contact with the approaching ship, which, incidentally, had not been seen on the ship's radar screen.

While the POSEIDON was approaching the roadstead, the first mate, who was standing the underway watch, was ordered by the captain to leave the bridge and go to the charthouse to draw up the pilot bill. The pilot, however, unbeknown to the captain, went below to his cabin to collect his things in anticipation of his imminent departure from the ship.

At 1618, the captain of the POSEIDON picked up the tanker"s echo on his ship's radar screen, at a distance of 370 to 555 meters from the tanker, and immediately reduced his speed to nine knots. A minute and a half later, he detected the tanker's silhouette ahead. He ordered the engine full speed astern and then flank speed astern (the variable-pitch propeller blades were adjusted at maximum sternway). After

spotting the port side of the tanker and believing her to be underway, the POSEIDON'S captain gave the orders "right rudder" and then "hard right". But measures were taken too late, and at 1621 the POSEIDON, with considerable headway and turning to starboard, slammed into the KERCH's stern on the port side. It should be noted that when the variable-pitch propeller blades were adjusted to full astern, the engine was overloaded, resulting in a drop in the number of revolutions.

The KERCH' detected the POSEIDON's echo on her radar screen at 1617 when the latter was 555-740 meters away. They visually sighted the POSEIDON at 50 meters. Seeing that it was impossible to avoid a collision or to take any effective measures to avert one, the tanker sounded her fire alarm. /59

Both vessels were considerably damaged and had to be repaired.

The commission investigating the accident found the captain and first mate of the POSEIDON guilty. They grossly violated Rules 16 and 29 of the Regulations for Preventing Collisions at sea, local navigation regulations (Compulsory Regulations for the Port of Odessa) and shipboard navigation service procedures.

Despite poor visibility, the POSEIDON entered the roadstead at high speed (14 knots). This was not in accord with the circumstances and conditions of navigation. (it violated Rule 16 of the Regulations for Preventing Collisions at sea). Moreover, the ship did not properly conduct radar and visual surveillance of the surrounding situation. As a consequence of this, she only detected the KERCH when she was 370-555 meters away, i.e., practically just before making visual contact with the large tanker, and the tanker's fog signals were not heard at all. This violated Rule 29 of the Regulations for Preventing Collisions at Sea.

The captain of the POSEIDON was the only one handling the ship under the difficult navigating conditions

which prevailed when she was entering the roadstead. The watch officer did not give the captain any assistance at all and there was no lookout on the forecastle. Radio communications with the signalling station likewise had not been maintained.

The pilot should also share part of the blame. Instead of helping the captain during this difficult situation, he shirked his responsibilities and left the brdige before he should have.

The commission did not find the command of the KERCH' at fault for this collision.

(Chart, p. 59)

1) Odessa; 2) KERCH'; 3) POSEIDON;
4) True course = 250°; V = 14 knots.

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MORSKOY SBORNIK, SUPPLEMENTARY ISSUE NUMBER 2. ARTICLES FROM TH--ETC(U)
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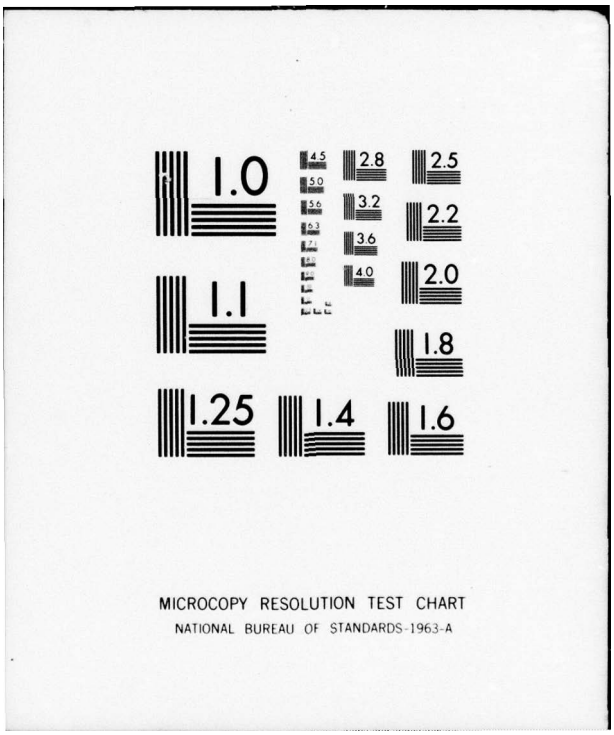
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MORSKOY SBORNIK, No. 6, 1972, pp. 78-80.

THE USE OF PORTABLE FIREFIGHTING EQUIPMENT

by

Captain 1st Rank - Engineer V. Maksimov
and
Captain 2nd Rank-Engineer V. Maslak

Ships and boats of the Navy have highly-effective /78
stationary firefighting equipment, and are supplied with a certain amount of portable firefighting equipment. These are simply-constructed, highly reliable and are readily accessible to any crew member.

Portable firefighting equipment is classified according to the principle of operation, transport, use and type of extinguishing substance.

The most rational classification system is based on the type of substance utilized, because it determines extinguishing capabilities, tactical methods of their use, and storage requirements.

Firefighting substances are classified as water, foam, carbon dioxide, aerosol and dry chemical.

Salt water can be used to put out any burning material, especially solids (except energized electrical equipment). It is usually delivered by means of manual or motorized pumps through the fire branches and hoses.

Chemical (the OPM extinguisher) or mechanical (the VOM-250 and OVPM-30 extinguishers, backpack foam proportions and high-capacity foam generators)foam is used to extinguish burning liquid fuels. However, they are not suitable for extinguishing explosives and energized electrical systems, with the exception of the VOM-250 extinguisher. Its mechanical foam, charged with a foam-

generating solution in fresh water, can extinguish burning electrical equipment at a potential of up to 320 volts, but provided that the electrical system is de-energized when the fire is out the solution formed after the foam is extinguished is electrically conductive). It should also be kept in mind that mechanical foam will not extinguish burning alcohols and ethers. /79

Carbon dioxide extinguishers are most effective for extinguishing fires involving electrical and electronic equipment. Carbon dioxide is also used for putting out burning paper (books, documents, charts, etc.), because it does not penetrate the burning material and does not damage it. However, one must bear in mind that the paper continues to smoulder within.

The use of portable carbon dioxide fire extinguishers on burning liquids and solids is not very effective, due to the short CO_2 spray, its short duration and possible reignition of the materials. Personnel must heed the toxic effect of carbon dioxide on the human organism. Therefore, the use of the OU-2 extinguisher in compartments less than $16m^3$ in volume, and the OU-5 extinguisher in areas with a volume of less than $40m.^3$, is prohibited. After the fire is out, the space must be carefully ventilated, and the personnel working there must wear self-contained breathing apparatus. These are also required when other firefighting equipment is used, since many harmful gases are always given off during combustion.

Halogenated hydrocarbons serve as charges in aerosol extinguishers,* as extinguishing powders do in dry chemical extinguishers.

*Morskoy Sbornik, 1970, No. 9.

Aerosol and dry chemical extinguishers are used to extinguish all types of burning materials, except explosives. Halogenated hydrocarbons and dry chemicals

are nonconductors. In extinguishing fiber and wood with halogenated hydrocarbons and dry chemicals, after liquidating open combustion, the materials must be soaked with water to prevent reignition. Halogenated hydrocarbons have a mild narcotic effect and the same preventive measures taken for carbon dioxide extinguishers must be observed in using them. The main advantage of aerosol extinguishers is the possibility of storage at any positive or negative temperature. Because of the high hygroscopicity of dry chemicals, these extinguishers have not yet found broad application. /80

Portable firefighting equipment has limited reserves of extinguishing substances and short periods of operation. Therefore, they can only extinguish a fire in a small area. The extinguishing capability is determined by conducting a series of tests, and is an approximation since the conditions of combustion and of extinguishing a fire can vary.

We will cite as an example data on the capability of several portable extinguishers. The OPM extinguisher can extinguish burning diesel fuel in an area of up to 3 m^2. The VOM-250 will handle an area of up to 6 m^2 and the backpack foam porportioner, the VPSE-2.5 handles an area of up to 15 m^2 without a recharge. Burning gasoline can be extinguished in areas 2-3 times smaller.

If the combustion area is larger than noted above, a single extinguisher may not suffice. In this case, several portable extinguishers must be put into service simultaneously, and stationary extinguishers must be readied. If the fire is detected late and has spread to a large area, the stationary extinguishers must be put into immediate use.

Portable extinguishers which receive their extinguishing material from permanent extinguishers can operate for unlimited periods, but in such instances it must be borne in mind that when water is introduced, measures must be taken to maintain the ship's buoyancy and stability.

The use of portable extinguishers will yield the necessary result only when the combustion point is visible and the extinguishing substance is applied to the surface of the burning material. When high-capacity foam generators, fed from stationary systems are used, the foam may be applied directly into a compartment, since such generators have a high output and the foam can cover a large area. The number of generators required depends on the combustion area involved, and the rate of application of the foam.

Experience in the use of portable firefighting equipment shows that their effectiveness depends substantially on the skills of personnel in using them. Only through systematic training exercises can the most effective use of these means be attained. However, training exercises without a fire will not achieve positive results, since the crew might receive the wrong impression concerning the use of portable equipment and its effectiveness in putting out an open fire. Because of the high temperature generated, it is difficult to approach even a two-square-meter area of burning fuel (diesel). Therefore, it is necessary to simulate actual conditions.

Training exercises should be conducted under simple conditions, outdoors - gradually increasing in complexity, then moving into closed quarters, where it is harder to use firefighting equipment due to smoke and high temperature.

Even the simplest extinguishing equipment, such as fire branches and hoses, requires certain skills in laying out the hoselines, in directing the flow to a certain spot, and switching from one type of flow to another.

The broad application of simulated fires and explosions at training grounds and ranges enables us to teach the skills needed to make full use of portable firefighting equipment.

MORSKOY SBORNIK, No. 6, 1972, pp. 99-103

COMPETITION IS A CREATIVE MATTER

by

Captain 1st Rank V. Mordasov,
Senior Instructor, Political Directorate of the Navy

(a Review of Fleet Newspapers)

A great patriotic upsurge prevails these days on ships and in units of the Navy. /99 Personnel are striving to celebrate a national holiday, the 50th anniversary of the founding of the USSR, in a worthy manner. Socialist competition, broadly developed under the slogan "Everything created by the people is to be defended reliably, vigilantly, and staunchly!" is mobilizing Navymen to further improve combat training, rasie self-discipline, and unify the collectives.

It may be said with full justification that now it has become even more developed. The historic resolutions of the XXIVth Party Congress and the developing struggle for their implementation, the resolution of the Central Committee of the Communist Party of the Soviet Union in regard to improving the organization of Socialist competition, and also the directives of the Minister of Defense and the head of the Main Political Directorate of the Soviet Army and Navy facilitated this development.

Competition is broadly reflected in the naval press. Using various types of Party publicity, newspapers acquaint readers with the accomplishments and experience of the most advanced, and report their valuable initiatives. At the same time, the critics chastise deficiences, formalism and conventionalism in organizing competition, which still have not been eliminated on individual ships and in subunits.

Periodicals continuously carried the headings "On

Control - the Fulfilling of Committments" (Flag Rodiny), "For Competition - Efficiency", "Competition in Honor of the 50th Anniversary of the USSR" (Na Strazhe Zapolyar'ya, Boyevaya Vakhta),"On Control - the Organization of Competition," "The 50th Anniversary of the USSR - Worth Welcoming" (Strazh Baltiki), and others. One may derive satisfaction not only from the presence of these headings, but more importantly from the fact that one usually finds detailed and practical articles beneath these headings.

The pages of Na Strazhe Zapolar'ya attest to the fact that the editorial staff is imbued with an appreciation of the importance of thorough elucidation of questions involved in Socialist competition. Here articles related to its organization were published frequently, i.e., substantive articles and columns such as "The Firm Step of Leaders," "In the Midst or Primary Tasks" and "The Watch Officer and Competition". The newspaper tribunal is used to publicize new, instructive, existing competition.

An ASW ship returned from a long cruise. The crew successfully fulfilled the assigned tasks. The excellent organization of Socialist competition largely facilitated this. A positive experience was entrusted to newspaper correspondent Lieutenant V. Krysov for study. Thus the article "Everyone in the Public Eye" was born. /100
The author showed, with specific facts, how, the principles of comparability and publicizing the results of competition in the gunnery department were achieved.

The officers daily reviewed the performance of subordinates, observed the diligence and shortcomings in the activities of the men at battle stations, and issued grades. The best specialist was announced weekly. Progress of the competition was brought to the attention of personnel through discussions, radio news features and battle leaflets.

The readers also undoubtedly took an interest in how the best specialist was determined. In the department, criteria, which permitted us to determine the best,

were established. The author includes, for example, professional growth of the serviceman in comparison with others for the same period of time; the amount of effort they exert in solving problems of the same complexity; and daily attention to duty. All of this made it possible to more precisely compare the achievements of men with varying length of service and different specialties, intensified their interest in the struggle for superiority, and improved the chances of the young ones in competition with the old-timers.

Perhaps, not everything reported in the newspapers is usedin its entirety on other ships, but its disclosure enables us to get a feeling for the atmosphere in the search for better ways of organizing competition aboard ship, and encourages other officers to find more effective ways of working with personnel.

This newspaper report became even more notable, by virtue of the fact that alongside the cited correspondence was an editorial, entitled "A Comparison of Results," emphasizing not only the usefulness of ASW experience, but the need to firmly grasp the art of objectively comparing performance indices.

With an excellent creative design, a special-purpose insignia "For the Performance of Party Warriors" was also prepared and dedicated to Communists aboard the outstanding submarine YAROSLAVSKIY KOMSOMOLETS. The printed materials gave graphic evidence that the Communists of the ship fully deserve the title of pathfinders and exert considerable effort to steadfastly achieve the Leninist principles of Socialist competition. With the help of the Party Bureau, several seminars, such as "The Commander - the organizer of competition" and "The assistance of officers to subordinates in the fulfillment of Socialist obligations," are conducted here with subunit commanders. With active participation of the Communists, the Leninist lecture "V. I. Lenin on the Principles of Organization of Socialist Competition" was also read.

The effort by the editorial staff to tell with clarity

about the leading ships and units receiving high awards should be noted. For example, the page devoted to the twice-decorated Guards aviation unit commanded by Colonel A. Sorokin is being read with interest. For exemplary fulfillment of combat training tasks this unit was awarded the Lenin Jubilee Testimonial. The Guardsmen were among the first to enter competition for a worthy celebration of the 50th anniversary of the USSR, and are now resolutely storming the heights of combat mastery. The newspaper also acquaints one with the experience in imbuing airmen with a feeling of personal responsibility for the fulfillment of individual and collective obligations.

Thoughtful organization of competition, the key to achieving high effectiveness, as we know, is the proper method for creating the best conditions for development of creative initiative of seamen. Taking this into account, the staff of Flag Rodiny offered their newspaper pages to experienced commanders, political workers, and secretaries of the Party and Komsomol organizations. One would think the readers would remember articles such as "The Leadership Example of a Commander." "A Commander Leads Competition," "If Competition is Directed Concretely," "A Formula for Enthusiasm," and others.

Take for example, the article "A Formula for Enthusiasm," by Captain 3rd Rank V. Malykh, published in two issues of the newspaper. What is its appeal? It is an in-depth analysis of the relationships within a collective. The author himself serves in the missile subunit in question. For this reason he speaks knowledgeably of the daily activities of the senior officers and Party organization. /101

Once in the subunit there were NCOs who took a formal view of the organization of competition, limiting their role therein to the assumption of obligations by subordinates. The commander and the Party organization conducted several seminars with the officers and NCOs, at which the required materials and documents

were studied and the participants shared their service experiences. Here they began to more carefully monitor the fulfillment of accepted tasks and to devote greater attention to the development of obligations by the servicemen and the means for their fulfillment. Step-by-step, they uprooted formalism in the organization of competition.

Special significance was attached to a timely and objective summary of results. Here a rigid procedure was followed: the detachment commanders reviewed the results daily, the battery commanders on Saturday for the week, and the subunit commander for the month. The spirit of rivalry is broadly supported by practical competition by specialty, and by fulfillment of individual tasks and norms. The servicemen who demonstrate the very best results receive certificates (at muster) as the best specialists, and are awarded other incentives. Party and Komsomol activists, after the weekly and monthly review of the results of competition, publish lists of frontrunners and renew the display stands "Today they were outstanding" and "We are proud of them".

By publishing such material, the newspaper renders considerable assistance to a wide circle of readers. The author of these lines was a bystander when the article "A Formula for Enthusiasm" was heatedly discussed among the petty officers of an ASW ship. The experience of the missilemen interested them and permitted a deeper appreciation of their practice of organizing competion and introducing appropriate corrections therein.

Pacific Fleet readers undoubtedly noticed that recently the newspaper Boyevaya Vakhta began to give better coverage to the progress of competition. It did much to encourage massive support by naval personnel of the initiative of the crew of the Guards missile cruiser VARYAG, the first in the Navy to extend the movement to appropriately celebrate the 50th anniversary of the founding of the USSR. The newspaper also regularly calls attention to the effort by seamen to fulfill

assumed obligations. Boyevaya Vakhta prints articles on the organization of competition during cruises and assuring its effectiveness.

The correspondence "You know yourself, it was shared with a comrade" tells how the mutual monitoring and aid of competing ships' crews, accelerates their progress, developes diligence in training, and permits the adoption of innovations from neighbors and the elimination of deficiencies.

The theme of efficiency of competition is also systematically raised in the newspaper Strazh Baltiki. It publishes articles on the role of commanding officers and Party and Komsomol organizations in organizing competition. Of interest are articles on stimulation of morale of frontrunners and using competition to assure accident-free cruises and flights.

There is a great deal of instructive material on competition in several other newspapers, particularly Sovetskiy Moryak.

The quantitative aspect of the publications on competition in the naval press looks pretty good. But the quality of the articles, their depth and the skill in propagandizing innovations are not always given sufficient attention. Much superficial correspondence still appears on newspaper pages. Even with the most garish headlines they cannot be improved. The principal shortcoming of such articles is that they do not reveal ways to achieve high indices, and to improve the effectiveness of combat and political training, and the training of personnel is sometimes treated apart from Socialist competition. Apparently individual journalists were not imbued with an awareness that competition is an inalienable part of the total process of combat and political training.

The demands on the level of organization of competition in units and aboard ships have grown significantly. Naturally, there must also be a commensurate effort in the work of the Fleet journalists who report on various aspects of competition. Not everyone deeply under- /102

stands this yet. It is not without reason that at times to fulfill obligations is sort of depicted as a simple matter. Somebody gets carried away with demonstrating only an increase in the number of otlichniki * and class specialists,** all the while forgetting the requirements which an otlichnik and a class specialist must satisfy. Sometimes they do not take into account the frequent turnover of personnel in connection with reduced service tours, and the critical need to improve work with the men. The

*Otlichnik - One who has been declared outstanding by his CO in combat and political training.

**Class specialist - An officer or enlisted man who has passed an officer's or enlisted man's proficiency test in his specialty. There are 1st, 2nd and 3rd class specialists, as well as master specialists.

role of Komsomol departments of newspapers in advertising Socialist competition among the young people was increased. Unfortunately, this was not always taken into account. There must be more vivid reports regarding preparation of Navymen for the 50th anniversary of Komsomol patronage.

The educational functions of Socialist competition in the Army and Navy were greatly expanded. It became a significant means of strengthening military discipline, improving the outward appearance of servicemen, and maintaining their moral and ethical standards of conduct. How is this type of obligation fulfilled aboard ships and in units? To this question our newspapers sometimes do not give convincing answers. They often continue to write about competition, touching upon only its role in perfecting specialty training of seamen. This occurs particularly, in Strazh Baltiki, Boyevaya Vakhta and Kaspiyets.

Apparently several newspapermen still have not managed to hurdle the psychological barrier of old notions regarding competition and to find clear examples to demonstrate its influence in inculcating lofty

moral-political qualities in personnel.

On ships and in units, progressive methods of organization of competition during training exercises, flights, cruises, firing, and other combat training activities are seized upon. The acquisition of this skill is not easy. It requires appropriate organizational and pedogogical skills and a good understanding of the capabilities of subordinates. In such questions Fleet newspapers can become thoughtful advisors.

Once the editorial staff of Na Strazhe Zapolyar'ya conducted a meeting, entitled "At the round table," with representatives of the crew of a pacesetting submarine. The exchange of opinions resulted in the substantive article "On Tasks and Norms," which told of the enormous potentialities of competition. The article was noticed by the readers. However, they did not consider it appropriate to pursue them.

Competition in tasks and norms may be ascribed to those means which enable us, on a scientific basis, to construct work with the men, to obtain maximum output from them in a short time. Therefore, we must make the transition from general appeals regarding the need for such competition to a generalization and broad propagandization of accumulated experience.

Competition among the men themselves is the basis for accomplishing collective tasks. Unfortunately, in published articles on the subject, often it is said in passing. An illustration of the dynamics of reciprocal competition of seamen is instructive to a broad readership. Indeed, frequently a certain individual competes "with himself," and this means at half strength.

In reporting the competition of the unrated seamen and petty officers, sometimes one of its most important components, such as cooperation between competitors, is ignored. For example, in one of the issues of Flag Rodiny, an entire page was printed under the headline "According to Leninist Principles." It is striking that the competition of two seamen is not presented here in the best

light. An experienced specialist absolutely does not help a lagging one. In the opinion of the author, the latter must seek outside help. Why is such competition hardly a good example to emulate? Similar costs in elucidating this theme were also encountered on the pages of Boyevaya Vakhta. /103

Unstinting comradely cooperation, the daily concern of seamen not only for personal success, but also for the entire collective -- this is above all characteristic of our ships and units and deserves warm support in the press.

Implementing the resolutions of the XXIVth Congress of the CPSU, city and farm workers actively joined the movement to achieve economy and savings. Seamen are also participating, having assumed appropriate individual and collective obligations. It's a pity that the struggle of personnel for achievement of these objectives is still so poorly reported in the press. Last year, Na Strazhe Zapolyar'ya carried the headline "Northern Fleet Economic Fund," systematically reporting on the zealous attitude of the men toward public and military property, economizing resources. Now the editors have lost some of their interest in this theme.

There is a need for greater in-depth reporting in Fleet newspapers on such topics as officer competition, headquarters and competition, moral stimulation of frontrunners, assuring accident-free cruises and flights, and concern of Party organizations for fulfillment of assumed obligations by the men.

In the process of Socialist competition, much that is new, which promotes greater effectiveness in combat and political training, is developed. For example, in one of the submarine units of the Red Banner Northern Fleet a movement was started for the right to name the successors of the best specialists of the war years. A valuable beginning has been made and has taken root. Whereas previously, specialty competition was conducted only at a unit headquarters and only a few participated,

now it is also conducted on all ships and in subunits. In order to objectively determine the winners, a special provision has been developed which considers the length of service, the level of professional knowledge, practical skills, achievements in political training, discipline, participation in public affairs and knowledge of the history of the ship (unit) and Fleet.

This enabled us to enlarge the circle of advanced specialists, who hold the title of successors to the specialists of the war years. Now they are on every ship and in every subunit. The best of them surpass their colleagues. A special prize has been established for collectives in which competition proceeds especially actively. All of this fosters a broad repetition of the experience of the frontrunners and strengthens mass enthusiasm for the competition. The periodical Na Strazhe Zapolyar'ya was instructive on this point in the article "Who Is Best?" by officer A. Rusinov.

The newspaper workers accumulated considerable experience in explaining Socialist competition on ships and in units. It must be assumed that its creative utilization and its penetration into the life of personnel permits the newspaper staff to mobilize seamen more actively to fulfill Socialist obligations in honor of the 50th anniversary of the founding of the USSR.

MORSKOY SBORNIK, No. 8, 1972, pp. 52-55

THE COURAGE OF THE SEARCH

by

Major-Engineer A. Kontin

For over 12 years the outstanding aviation unit /52
where Colonel V. Grishin is Guards commander has flown accident-free. Its pilots and navigators successfully carry out their training tasks under all meterological conditions and deliver irrestible strikes against various targets. In 1971 the aviators became the prize-winners of the Navy. And now they will not give up the positions they have achieved.

The flight missions of the crews are becoming more complex and the burden on equipment is increasing. In order to prepare the equipment for short flights and with high quality, specialists of the unit are persistently seeking and implementing modern methods of aircraft maintenance, improving the organization of labor and creating devices which simplify the work of the men. Courage in searching, persistence in reaching the target, creative audacity --these are the distinguishing traits of the foremost aviators, who are practically all Communists here.

"A 'little' mechanization is a significant matter. Don't be offended, comrade Dzhanoyan, but in my opinion your idea is utopian. You'll only derive additional worries from it, and the effect will only be insignificant." said one of the officers checking the Air Engineer Service of the unit. "There are instructions and technical descriptions where everything is laid out clearly. Follow them and you will be able to reduce by several minutes the time required to prepare equipment for flight."

"But those instructions were compiled several years ago, when many aviators were acquainting themselves for the first time with such equipment. One cannot then adhere to them all his life," Major-Engineer P. Dzhanoyan, member of the Guards Party Committee, replied angrily. "Our proposal will shorten the time required for servic-

ing aircraft by at least 20% and will raise the quality of control over all aircraft and weapons systems. If they would just allow us to verify calculations in actual practice, we will assume all of the worries!"

However, on this occasion Dzhanoyan did not succeed in getting the desired permission. In was necessary to seek help from the chief aircraft engineer of the Fleet. Dzhanoyan knew that the latter works creatively and supports reasonable innovations aimed at assuring flight safety and increasing combat readiness.

And Dzhanoyan was not mistaken. Soon he received permission to modify the monitory instruments and, together with his comrades, tested a new method for integrated testing of aircraft equipment. They compiled so-called "spliced" drawings on all aircraft, indicated the measurement parameters and began to plot the shape of the pulses obtained from the monitoring jacks.

Experience has confirmed the correctness of the engineer's proposals. Now the specialists prepare the aircraft equipment in accordance with the new procedure and do it much more rapidly than before. Other subunits also use "the Dzhanoyan method."

For the third year in a row this outstanding unit, in terms of the number and quality of modified devices and improvements, occupies a leading place in naval aviation. In the first half of 1972 alone they introduced over 50 efficiency proposals aimed at extending the life-span of equipment, increasing the reliability of operation of the equipment, improving the organization of labor and shortening the period of preparation of aircraft for flight. Guards Major-Engineer N. Mashigin, Guards Captains of Technical Services V. Boltunov, V. Litvinov and I. Sukhinin, Guards Petty Officer G. Shcherbachenko and others have been of great service in this respect.

The aviators paint the aircraft three to four times faster with the help of an air compressor prepared by efficiency experts of the unit. Hundreds of electron tubes began working reliably in flight; they were checked

and conditioned on a turret-type installation. Specialists check the condition of the radars without removing them from the aircraft, using portable, homemade panels for this purpose. A trainer has been prepared for teaching in-flight refueling. All the things enumerated are only a minor part of the contribution of innovators in increasing the combat readiness of the forces of the Navy. /53

The fusion of labor and science. It is noisy near the cabin of the navigator-operator: two men are "explaining their attitudes."

"I got here first, see, so I'll start my inspection first," the voice of the radioman resounds firmly and decisively.

"Fine. Except that until I've inspected the electrical equipment I won't let the aircraft power be turned on," the electrician replies.

But the weapons specialist, already having taken his place in the cockpit, quietly checks "his" assemblies and units.

Minutes pass, but several aviators are "standing guard" at the aircraft or whiling away time in the break area, so that at the first possible opportunity they can avoid their "competitors" and start work.

It has been a long time, it seems, since such a scene could have been observed at the Technical Maintenance Unit station. Now "excess" people are not around the aircraft. Each specialist makes his inspection in the time allotted to him. A dispatcher oversees the course of the work. Information is fed to him concerning what is done on the aircraft and in the shops.

Implementing the elements of the scientific organization of labor is to the credit of the Communists of the unit, resolutely declaring war on outmoded work methods. This is roughly how it came about.

A party meeting, conducted after a routine aircraft

maintenance, was quite stormy. Many felt the time had come to raise the effectiveness of the men's work, to use service time more efficiently. But who and how to build an air traffic control center to equip a Technical Maintenance Unit and flight lines with telephones, develop network and technical charts?

Summing it all up, Communist S. Nyurenberg said:

"Nothing ventured, nothing gained. The good fairy won't do anything for us. But there is potential for improving the organization of the unit. These possibilities just have to be diligently sought."

Yes, considerable time elapsed before the specialists chose the most suitable design for an air traffic control center, build it, prepared the information panel, etc. In return, now the dispatcher not only monitors aircraft checks - he is also involved in the work of aviators, preventing undesirable phenomena.

It must be said that the first network and technical charts did not justify our hopes. After that, some even began to doubt the venture. But innovators developed new charts, which were much more suitable than the earlier ones. The organization of the work of the aviators improved significantly. This was the first real success of /54
Guards Captains of Technical Services, I. Kolchev and D. Ryzhov, Guards Senior Lieutenant of Technical Services A. Zaytsev and others.

And the specialists of the Air Engineer Service were already thinking about how to shorten the time aircraft spend at the Technical Maintenance Unit (TMU). They proposed putting the subunit on a double-shift.

Things were going better. But it was mandatory to plan the work of the specialists even more strictly, to intensify control over the course of all operations. You see, the group leaders were not able to put both shifts on the flight line. They had to "double" the senior technicians. Then, at the suggestion of the head of the TMU, they timed the operations carried out in the shops and on the aircraft. This facilitated development of "flexible"

plans for the day, the week and the month.

The results exceeded all expectations. Thus the aviators were now carrying out the most time-consuming procedures nearly one-third faster than before.

Other tasks too began to be fulfilled more efficiently. Thus they began to arrange aircraft better and to observe the sequence in their preparation according to the planning chart. They established a strict sequence for supplying power and other means to winged aircraft. They made special counters with indications of numbers of aircraft, and they began to deliver them at the end of the shift to operators of special equipment. Now every one knows definitely where there needs to be improvement on the base.

Stationary and mobile engineering monitoring stations were created. Now, with the help of communications equipment, the duty engineer can coordinate the work of subordinates, give advice to the crew when equipment fails in flight, etc.

The Zero-Defect System. As experience indicates, the majority of equipment failures arise from carelessness or inattention by some aviators in checking and installing aircraft equipment. Shielding themselves with the slogan "no one is insured against error," at times they do not strive to perfect their knowledge and skills, and in inspections they pass over "secondary" checks. Thus some specialists sort of psychologically attune themselves to neglect of duty and are content with their own shortcomings.

In the unit in question, Captain-Engineer V. Meshkov suggested introducing the "zero-defect system." The essence of it is that every specialist must be confident: he is not only capable but also obligated to work error-free. The system is a complex of educational and other measures directed primarily at preventing failure of aviation equipment.

We know that only a disciplined man, who knows his specialty to perfection and possesses a high sense of

responsibility in matters entrusted to him, can service aircraft outstandingly. That is why in the subunits special attention is paid to individual work with unrated personnel, to theoretical training, and intensification of control over their actions in preparing equipment. In the unit, propaganda is well-prepared and graphic.

One of the forms of personnel training is the analysis of errors and omissions, and their causes. Once, for example, a senior technician began to acquaint a young mechanic with the rules for inspecting an aircraft, violating an existing procedure. The subunit engineer analyzed the officer's mistake and advised how to correct it. Here the engineer showed all the senior technicians the need for stricter adherence to the method of training subordinates. /55

Aviators of the unit accepted the Socialist obligation not to allow equipment failures. Commanders and engineers offer incentives to the best men, and note the vigilance of specialists who prevent breakdowns. Advanced experience is summarized and propagandized.

Senior technicians of detachments, group leaders and engineers mastered the operations control method. By using this, leaders acquired the capability to quickly monitor the preparation of aircraft and anticipate airborne failure of defective aircraft.

The "zero-defect system" envisages joint efforts by commanders, political workers and engineers, and a continuous search for testing and inspection methods satisfying present-day requirements.

The first steps in this direction have already been taken. Implementing the new system requires of aviators the greatest effort, daring, a display of intelligent initiative, and creativity. And it is the initiative and creativity of the masses which is the firm foundation for a further increase in flight safety and the combat readiness of the unit.

TITLE: Tyagun

Tyagun

AUTHOR(S) Vasil'yev, K.

SOURCE: Morskoy Sbornik, No. 8, 1972, pp.88-89

ORIGINAL LANGUAGE: Russian

TRANSLATOR: R

MORSKOY SBORNIK, No. 8, 1972, pp. 88-89.

TYAGUN*

by

Candidate of Physical and Mathematical Sciences

K. Valil'yev

*Translator's note: According to the Russian Morskoy Slovar', a "tyagun" is a phenomenon involving induced oscillations of a water mass in port, caused by long-period waves approaching port during a storm. The Russian term shall remain untranslated.

On the night 14 January 1969, in the port of Il'ichevsk on the Black Sea, enormous masses of water suddenly began to move. /88*

Ships, breaking mooring lines, began to move along the mooring walls, piling on each other and on the moorings. Loading and unloading operations in the port were halted. Tugboats began to bustle about the harbor, helping ships move to the outer harbor. After a few hours, the motion of the water stopped and work in the port resumed, but talk about the unusual 'trick' of nature continued. The cause of the nocturnal commotion was an unexplained phenomenon, which still hasn't been scientifically explained.

In the foreign scientific literature, it is called by various names: surge, surf action, surf, etc., but the most accurate and graphic name was given to it by Black Sea sailors - "tyagun." It is observed in several ports, located on both ocean coasts and seacoasts.

In the process of studying the tyagun, Soviet and foreign researchers have suggested many hypotheses about its origin, but none of them reveal the physical

*Numbers in the right margin indicate pagination in the original text.

not formed.

As with the majority of dangerous phenomena of nature, it is impossible to avert a tyagun. It is counteracted by timely warning to navigators concerning its beginning, intensity and duration. For estimation of the intensity of a tyagun, the following scale has been adopted: 1 - very weak tyagun, 2 - weak tyagun, 3 - moderate tyagun, 4 - strong tyagun, 5 - very strong tyagun. /89

With a tyagun of 1 or 2, periodic tightening and slackening of mooring lines is observed, additional lines are paid out, and cargo operations in port are not halted. With a moderate and strong tyagun (3-5), mooring lines stretch so much that they frequently break, berthing at moorings is dangerous, and ships leave port for the outer harbor.

In the USSR, the tyagun causes the greatest loss to the Fleet in the ports of Tuapse and Batumi -- less significant losses in Poti, Sochi and Il'ichevsk. For example, in the port of Batumi, the average annual loss due to forced ship layovers is 380 thousand rubles.

Analysis of observation data showed that, in ports on the Caucasian coast of the Black Sea, a tyagun occurs in all cases with stormy weather over the western and central ports of the sea with established westerly and northwesterly wind and the approach of the waves of an ocean swell or a mixed sea from these directions to the Caucasian coast. In Tuapse, a moderate and strong tyagun is observed with the approach of waves from the southwest and west, in Batumi - from the west. In Poti, a tyagun forms only at the outlet from the port, and inside the basins it quickly attenuates.

The tyagun is observed in a few Far East ports. Thus, in the port of Kholmsk, it arises with the approach of waves of an ocean swell from the northwest, and in Korsakov - from the south. It is noticed here less frequently than on the Black Sea and doesn't attain great intensity.

substance of this phenomenon. In the opinion of some researchers, a tyagun is formed as a result of the action of the waves of an ocean swell, which, interacting with water masses in port, give rise to pile-up surge and run-off currents, causing the motion of ships at moorings. Others believe that the displacement of ships is caused by long-period waves, entering port from the direction of the sea. A third group proposes that the cause of the appearance of the tyagun is the coincidence of the periods of natural oscillations of the moored ships with the long-period waves arising in port.

In recent years, on the basis of an analysis of natural observations and experimental and theoretical investigations, it was established that a tyagun is formed as a result of double resonance: oscillations of water masses in port and water masses arriving from the sea, and also the total oscillation of water masses and the swinging of moored ships, caused by this oscillation.

Oscillations of water masses at sea form under the influence of atmospheric processes taking place over it. Thus, upon movement of atmospheric fronts, a pressure drop is observed in the transition zone of the front, which, with simultaneous action of wind on the water surface, causes the formation of a wide spectrum of waves, some of which are long-period waves. With an air pressure reduction of 1 mb, the level of the sea in the given area rises 1 cm. Therefore, with a sharp pressure reduction here a water dome appears, which, sinking under the influence of gravitational forces, causes the formation of long-period waves, propagating in various directions. As can be seen, the development and shifting of pressure formations in the atmosphere involves static and dynamic changes in the level of the sea: concavities with anticyclones, and convexities with cyclones, giving rise to free (long-period) and induced (wind) waves.

Experimental investigations have shown that if the period of natural oscillations of water masses in a closed reservoir (port, harbor, bay) does not coincide with the period of the arriving free waves, a tyagun is

In conclusion, we should note that study of the tyagun and determination of a method of its forecast is an urgent problem, the solution of which will have a great economic effect.

MORSKOY SBORNIK, No. 9, 1972, pp. 55-58.

THE FACETS OF A COMMAND OFFICER

by

Captain Ye. Nayshuler (Reserve)

An aircraft on a combat course. The all-seeing radar reliably keeps it "embraces" on a distant naval target. The fiery heart of a rocket missile was beating, and it shot swiftly ahead...The target was destroyed with a direct hit. /55

Once again the crew of Military Aviator First Class Lieutenant Colonel A. Kuvayev has demonstrated great skill. And this is no coincidence. Anatoliy Grigo'yevich has devoted 25 years of his life to the air. A career as an air warrior began for the 16-year old youth in a preparatory school. He completed the Naval Mine Torpedo and Aviation School and the Academy with distinction. He mastered several types of aircraft and he has flown over 2500 hours. Fifteen hundred of them were under complex meteorological conditions. He made 100 landings under minimum permissible weather conditions.

The subunit which Communist Kuvayev commands earnedthe title of outstanding in the pre-Congress watch. Continuing to compete under the motto "50th anniversary of the founding of the USSR-- a worthy occasion," it is still among the best in the Fleet.

The successes of the team also comprise a considerable part of the work of Anatoliy Grigor'yevich. A most experienced flight instructor, he was commissioned to teach subordinates and to monitor their flight technique under any conditions, in all phases of combat readiness.

Many aviators who now fly under minimal meteorological conditions and carry out in-flight refueling, day and night are indebted to the skill of their /56

commander.

In a discussion, the head of the political department designated Kuvayev a master of missile strikes. And this is really so. A great many actual launches have been credited to him. And they were all carried out "Outstandingly." The commander's military work has been recorded with the Order of the Red Star.

While the facets of a command character were being polished, Lieutenant Colonel Kuvayev also achieved success, which was somewhat instructive.'

...The subunit confidently achieved new successes. They began to talk about it as one of the most combat-ready. It was often held up as an example at conferences. Maybe this is why they talked loudly about the successes at that Party meeting, and offhandedly, casually, about the deficiencies. Moreover, the senior staff officers were present at that meeting, and it was felt nobody was willing to recall any disappointing "trifles" in their presence.

The meeting did not please Communist Kuvayev. And after a routine, "smoothie" speech he asked for the floor.

"Truly," the officer said, "our achievements are remarkable. But was everything done so that the subunit really had no shortcomings? Of course not! Let's take an example. A crew received a critical assignment. When the plane took off, it transpired that the cabin was not pressurized. True, the aviators found the cause after a persistent search. They explained that the emergency cabin pressure drop switch on the instrument panel of the right hand pilot was unlocked and pushed to the "on" position. The aviators corrected the situation. But carelessness was obvious, and carelessness of one of our own number."

"Here's another case. An aircraft was put back into service after repair. But when the crew got into the air, deficiencies were discovered. The onus fell on maintenance specialists. I understand they carried out their task poorly."

"Their guilt was certain. But also a guilt in cover-up," concluded the commander, "even our officer, Senior Lieutenant of technical services V. Stezhko. He inspected the aircraft poorly when he received it from maintenance. As you see, it is too early for us to rest content."

Perhaps a distinctive characteristic of the lieutenant colonel is his high-mindedness and intolerance toward any deviation from the norms of military life. He is equally exacting of himself and of subordinates.

The case of the cabin depressurization, which Kuvayev recalled at the meeting, occurred in his crew. And when the second pilot tried to shift the blame to somebody for leaving the emergency pressure drop swith in the "on" position, Anatoliy Grigo'yevich said:

"You are primarily guilty, because you did not properly check out the cabin equipment. I am guilty too, as commander, for not demanding that you punctually instruct the crew."

Kuvayev was not "ashamed" to "wash his dirty linen in public," even when one of his men arrived at the airfield insufficiently prepared for the mission. The commander suspended him from flying. Such measures appeared too strict to some people. But the lieutenant colonel did not change his decision. He was always inflexible if the matter concerned the interests of the flying service and increasing the combat readiness of the subunit.

This lesson was also instructive for the navigator.

Kuvayev's number one concern is the men and their military training. He reasons: the more skilled that subordinates, the more successfully they will be able to fight an enemy. A Communist devotes his entire resources, experience and knowledge to training aviators to defend our Motherland.

...An airplane was landing. The pilot began to brake. Suddenly the plane began to vibrate strongly. The crew captain decided that one of the systems was malfunctioning.

He reported it to Kuvayev. Kuvayev asked him to describe its actions during the landing run, after which he remarked:

"It's not the system. Instead, you didn't brake correctly. One must brake gradually, as speed is reduced."

"In that case," said the pilot, "landing speed is reduced slowly and you can roll beyond the strip." /57

Kuvayev answered the pilot and explained in detail to the officer how it was necessary to correctly execute a given maneuver. The pilot would like to have agreed, but he felt that in the air it remained a question of his own convictions.

"You're obviously not going to prove it to him with words," thought the lieutenant colonel. "You'll have to give him some transport flights."

They took off, made a "box", and landed. Kuvayev braked as described. There was no vibration and the plane did not roll beyond the strip. The pilot shook his head and said it was just coincidence. But after the third flight he had to change his mind. And then, under the supervision of Kuvayev, he himself began to execute the braking successfully, and he admitted it wasn't the fault of the aircraft.

One of the main principles which governs Kuvayev as an instructor is to teach objectively and creatively, and to persistently shape fighting airmen. In every possible way stimulating initiative, Anatoliy Grigor'yevich at the same time requires subordinates to strictly observe flight regulations and the methods of carrying out various maneuvers in the technique of piloting.

Somehow a young crew captain took off with an unfixed angle of attack.

"It's forbidden to do that," Kuvayev told him. "The

plane might assume an angle of attack greater than the critical angle and collapse a wing."

"That couldn't happen," replied the officer, "because it was not at full weight."

"And if it were full?"

"That's another matter."

"Then according to you it would seem that there are two methods of taking off?"

The flier said nothing. The instructor patiently explained to him where he had erred. The lesson was put to use.

But it would be erroneous to think that precise observance of the requirements of methods and instructions excludes creative initiative and a search for new ways of improving the combat skill of aviators.

While carrying out in-flight refueling, a pilot did everything required by standard operating procedure. Yet he could not properly carry out the exercise. The instructor wondered, "Could it be that he can't learn his assigned type of combat training?" But Anatoliy Grigor'yevich understood that this was the simplest course. And maybe the technique was inadequate? He too searches and checks. The instructor divided the entire flight into stages. He pondered how best to divide attention in each of these. We say, concentrate primary attention when approaching the tanker, on the refueling tanker, on the flight altitude and interval. Kuvayev himself checked out the innovation. The result exceeded expectations. And once again he began teaching the pilot. The officer assimilated the refueling operation fairly quickly. Incidentally, the lieutenant colonels' recommendation later found broad application in the practice of other instructors.

...On the way to a target a missile aircraft overcame many obstacles. It repulsed a fighter attack and by maneuvering avoided the fire from antiaircraft guns. The

plane was on a bombing run. Everything was ready for launching the missiles. Then the navigator reported that one of the instruments in the system was giving irregular readings. The crew paid close attention.

"How can it be?" thought Kuvayev. In view of the particular circumstances, could we return to the airfield?" No one would reproach him for such a decision. But then the assignment would have remained uncompleted. "And how would you act in a combat situation?" the commander asked himself the question and answered it: "attack the enemy under any circumstances!" And he ordered the crew:

"Continue preparations for launch."

Anatoliy Grigor'yevich once more analyzed the situation which had arisen. His outstanding knowledge of the equipment and weapons helped him to understand that the system was in good condition, and that the instrument had gone out of commission.

And when the missile aircraft reached its assigned position, the lieutenant colonel ordered:

"Launch!"

A missile sped forward, leaving the men in anxious expectation. But it quickly became known: the target had been hit. The crew deservedly gained another victory. /58

To behave on any flight as if one is in combat! Lieutenant Colonel Kuvayev adheres to this rule constantly and demands the same of his subordinates.

One more case comes to mind.

A crew had successfully carried out a tactical launch. But according to the target control data, it turned out that the ship's commander had not maneuvered.

"I wanted to ease the work of the navigator," the pilot

said in justification.

Kuvayev insisted that they lower that crew's score. Since then, in preparing for flights, even a local, the subunit commander has specifically taken steps so that aviators develop missions which take counteraction into account, in a tactical background fully saturated with combat elements. Zones of aircraft detection by electronic gear, regions of probable encounter with "enemy" fighters and guided missiles, and many other factors were also taken into account.

But as is well-known, under combat conditions the situation will be changing continuously. And the commander introduced more and more new elements into the tactical background, as events unfolded. At first the given tempo was not under everyone's control. Some navigators on the bombing run were unable to sight precisely during a vigorous maneuver. The scores dropped for individual exercises. But this didn't embarrass Communist Kuvayev. He thought that experience and skill would come along. In return, the men got accustomed in every flight to acting as if it were combat.

And it wasn't a mistake. The subunit, which a first-class pilot commands, is now able to carry out the most complex tasks under conditions closely simulating combat.

But we would be incorrectly characterizing Kuvayev if we did not reveal the other side of his character -- his great humanity, attention to subordinates and concern for their needs.

One day he noticed that one young pilot arrived for service depressed. Anatoliy Grigor'yevich had a talk with him. It turned out that the pilot was living with his family in uncomfortable quarters. And although living quarters at that time in the garrison were terrible, the lieutenant colonel obtained improved living conditions for the officer. He also helped Seaman Arkhipov repair his house at home.

Such is our contemporary, a commander of an outstanding subunit, Communist Kuvayev, one of the foremost naval air officers.

TITLE: Taking Account of Ocean Characteristics

S Uchetom Okeanskikh Osobennostey

AUTHOR (S): Kontiyevskiy, A., and

Vengerov, N.

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MORSKOY SBORNIK, No. 9, 1972, pp. 72-75

TAKING ACCOUNT OF OCEAN CHARACTERISTICS

by

Major-Engineer A. Kontiyevskiy
and
Major-Engineer N. Vengerov

The gloomy, grey, dreary sky of the Atlantic hung /72* over the ship. When the ASW cruiser climbs the enormous, dark-ashy waves, raising her bow high, it seems that she will catch the ragged low clouds with her superstructure.

Slanting torrents of rain, caught by the wind, beat on the metal plating. It is impossible to fly for the time being - it is storming. But the work on the ship doesn't stop. Aviators live with a single passion: to /73 honorably fulfill the Socialist obligation in the next stage of competition. All of their thoughts, actions and deeds are subordinated to this.

Preliminary preparations for flight are underway. At the storm-secured rotary-wing aircraft, specialists are inspecting the engines, equipment, assemblies, and machinery.

Sailors, led by Communist and Captain of Technical Services A. Bezverkhov, "identify" the circuits of one of the systems of the helicopter. The job is complicated and responsible. A sergeant, outstanding in combat and political training (A. Novikov), having received instruction from Bezverkhov, put on a life belt and set about fulfilling the task.

Novikov had already inspected two helicopters. Everything was normal. He checked the next one with special attention. In the words of the crew captain, during one of the flights the compass needle jumped around. True, it lasted only a few seconds in all. But...

*Numbers in the right margin indicate pagination in the original text.

Upon inspection of the equipment, the defect was not verified. The sergeant could have "wrapped it up" and busied himself with other matters. However, he decided to artificially create the conditions under which the compass was used while airborne. This required the help of his comrades, the advice of an officer.

During the entire time, commands are heard: "Start the engine! Check readings! Start! Repeat checks!" Minutes elapse, but the needle, as luck would have it, moves smoothly, keenly sensitive to the smallest change in the position of the compass transmitter.

"Maybe the crew messed up something?" doubted a young mechanic. But Sergeant Novikov and Captain Bezverkhov didn't agree with him. They took the transmitter apart and carefully checked the components. It turned out that one of the parts had lost its elasticity. That was the reason for the unstable operation of the compass. The defect was quickly eliminated.

"Never jump to conclusions. Analyze the remarks of the pilot more deeply, and take readings several times. Remember, it is possible to prevent every failure. Therein lies our task."

The mechanics attentively listened to the captain, trying to do everything just as the instructor taught. And it wasn't a coincidence that on cruise not one helicopter was delayed taking off due to their fault.

Well devised and opportunely-executed preventive maintenance, special inspections, and high-quality testing of equipment helped the personnel of the subunit to successfully cope with the tasks of the cruise.

A significant contribution toward ensuring smooth operation of the helicopter subunit was introduced by specialists of the Air Engineer Service, who skillfully "treated" the rotary-wing aircraft and maintained them in an outstanding manner within time limits.

Routine maintenance work on cruise, as well as ashore, is carried out in order to prevent the early failure of assemblies and machinery and to ensure smooth operation of the helicopter's equipment. Routine maintenance is implemented over a definite period, and ashore, where all the conditions are set up for this, it is comparatively simple to carry them out. It is far more complicated to do it at sea, where a small group of aviators can only rely on their own resources.

Successful fulfillment of these tasks was complicated by the fact that among the personnel were young seamen and officers who were on a long cruise for the first time.

They started training for the primary task long before putting to sea. Under the leadership of experienced specialists, they learned to test the means of searching for an underwater enemy, and to quickly and qualitatively carry out routine maintenance. The next step in the training of aviators was the work carried out by them aboard ship while it was still at base. This permitted a more specific determination of personnel capability in helicopter maintenance and intensity of flights.

Then the specialists reviewed the orders for maintenance of equipment and carried out stationary tuning and adjustment of test stands. Moreover, in the electronic and radio equipment group, they prepared new measuring devices, the use of which shortened the maintenance period of the apparatus. Senior Lieutenant of Technical Services, N. Kudinov, Warrant Officer V. Neselevskiy, and others participated in their creation. /74

From the first days since the ship put to sea, intensive flights have occurred. Skillful planning of assignments to crews and a strict accounting of the air attack permitted us to organize the activities of the subunit in such a way that the guaranteed operating life of the engines was spent very efficiently. But all the routine schedules were rigid. The specialists

gave themselves a task: carry them out under any conditions, shorten the time required for checks, raise the productivity and quality of the work. The innovators of the subunit did a great deal toward that end. Among the active aviators, there were proposals for further improvement in ensuring flight safety, in control, and the introduction of scientific organization of labor. Each of them is directed at attaining maximum results in combat training with minimum expenditure of forces, time and engine life.

Thus, at the initiative of Major-Engineer G. Zyuzi and Captain A. Ryzhkov, a system of network planning and dispatching of routine work was perfected, and plotting boards were made, with the aid of which the disposition of helicopters can be quickly selected for servicing. And new technological charts permitted a more clear-cut establishment of the sequence and time for completion of operations on the aircraft. Now everyone well knows his sequence and assigned work.

Before and during a cruise, specialists received specific assignments and necessary advice and support. As a rule, proposals were developed collectively. There was a plan in the subunit which became a basis for the activities of the "efficiency experts".

The organization of routine work, both ashore and at sea, is quite specific. For example, some "seasonality" is characteristic of it. In fact, usually after intensive flights the number of aircraft entering routine maintenance increases a little. But these must be put into service without delay.

In order to accomplish that quickly and well on a cruise, it is desirable to combine the efforts of aviators of all specialities.

At sea, as nowhere else, we need mutual assistance, close ties between technical and flight personnel. Aboard ship, the contribution of each man to the common cause is felt. Practice has demonstrated that the quality of preventive maintenance is noticeably higher

if specialists of the Air Engineer Service and helicopter crews inspect the assemblies and machinery together. Moreover, pilots and navigators have learned to carry out complex checks, to independently prepare the aircraft for flight. First to master it were Majors V. Morkovin and G. Fedorov, Captain G. Pravdivtsev, and others. After some time, all flight crews of the subunit received authorization to service helicopters without the aid of technicians and mechanics. /75

Each success of the aviators was the result of the intensive work of commanders, political workers and the Party and Komsomol organizations. They have never disregarded a single deviation from instructions and regulations, doing what they could to help whoever was in need of it.

Bells sound a great battle.

"Group number --- "Ready to take off!" is heard from the ship's loudspeakers.

After counted minutes the helicopters speed to the assigned area. As soon aboard ship the report is received: "The 'enemy' submarine has been detected!"

During the cruise described above, many aviators successfully passed tests for class specialties, and completed the next step toward the goal set for military men by the 24th Congress of the Communist Party of the Soviet Union.

Excellent theoretical knowledge and solid practical skills, the ability to work in complicated conditions - these are guarantees of the high quality of preparation of the helicopters for flights. And considerable credit is due the technical crew by virtue of the fact that the subunit successfully fulfilled all assignments at sea and earned the right to be called one of the best in the Fleet.

Photograph caption, p. 74. A few minutes remained before starting.

MORSKOY SBORNIK, No. 9, 1972, pp. 92-96.

WATERSPOUTS AT SEA

by

Candidate of Geographical Sciences
Yu. Romanov

Mariners and residents of ocean and sea shores /92* often observe enormous columns of water which, either singly or in groups, appear between the clouds and the surface of the water. These are waterspouts.

In ancient times, they were identified with gigantic sea serpents, dragons and other monsters, and were considered a manifestation of the devil's spirit. For centuries, people searched for means of controlling waterspouts and believed in all sorts of fables. For example, in the Bible it is said that one might ward off a waterspout from oneself by a loud noise and persuasion. In a more recent period, it suggested that it might be possible to destroy a waterspout with a cannon shot.

The well-known English naturalist and buccaneer W. Dampier was the first to describe the process of formation of waterspouts. In 1688, on Celebese Island, he observed the origin of a waterspout. The weather was overcast and a thunderstorm was approaching. Not far from the ship, in an area about 100 paces in diameter, the water began to sort of boil, the spray rose higher and higher, and suddenly from the water a high, sharp cone emerged. Dropping from the clouds to meet it was an enormous funnel-"trunk"; they merged, and the waterspout slowly began to move. It was clearly seen how water was sucked up inside the column and was raised in a spiral to the very cloud, which began to blacken and grow before one's eyes. After about half an hour, the waterspout broke up and a large prt of the water fell to the sea with a roar.

According to the conditions of formation, waterspouts may be subdivided into two groups. In the first group are the waterspouts which arise in an area of atmospheric fronts and squalls, accompanied by dense cloudiness. Within thunderbuds and cumulus-nimbus clouds, vortical structures are continually arising in the form of air rings and chimneys, the individual segments of which, according to the laws of aerodynamics, may bend toward the earth and form a waterspout.

In thunderclouds (which are characterized by a strong heterogeneity), vortical structures are formed at the meeting of wind currents of different directions and speeds. Conditions are most favorable when the thundercloud takes root in layers with sharp changes of wind speed vertically. Waterspounts in this group are of considerable size, have great energy, and have prolonged 'lives'.

The first group should also contain storm waterspouts, which appear in the vicinity of tropical cyclones, usually in their right front part.

In the second group are waterspouts arising in good weather conditions, in the presence of strong convection processes in the lower layers of the troposphere. The mechanism of transformation of convection currents into air vortices has not been sufficiently studied thus far.

In some cases, a 'good weather' waterspount, generated at the surface of the water, subsequently creates a cloud itself. Such phenomena were observed by seamen in 1877 in the South China Sea. In the immediate proximity of the ship, sprays appeared on the surface of the water (as if flying fish were leaping out), their number rapidly increased, they were concentrated in a spiral form, and suddenly from them was formed a counterclockwise-twisting column about 10 meters in diameter and approximately 6 meters high. The column quickly grew; from the sides water fell down in cascades. After some time, when the height of the vortex became considerable, over it appeared a small grey cloudlet which started to enlarge,

became thicker, and became black. The water column merged with the cloud and soon was destroyed. /93

Waterspouts, especially small ones, often spring up in whole groups (Fig. 1).

The upper, funnel-shaped part of a waterspout, hanging down from the cloud, is visible due to the condensation of water vapor, resulting from the dynamic cooling of the air in the inner part of the funnel, where an abrupt reduction in atmospheric pressure is observed. The remaining part of the vortex might remain transparent until the "trunk" touches the surface of the water. It starts to suck up water and quickly darkens. A cloud of water spray almost always forms around the base, which appears as a result of the descent of great masses of water from the walls of the waterspout.

Together with water, a variety of marine organisms may be sucked up and transported dozens of kilometers, and then, away from the sea, pour out with astonishing showers of crayfish, little fish or jellyfish, as was the case in the village of Kavalerovo, not far from Vladivostok, 50 kilometers from the seashore.

Waterspouts may bend in various directions, assume the form of an integral, and even have several bulges in their middle part, the origin of which is still not clear. Their average height is 300-600 meters, with a diameter from one to a few dozen meters; but sometimes real giants appear. Thus, in 1896, off the coast of Massachusetts (the Atlantic coast of the U.S.), a waterspout of gigantic proportions was identified: 1000 meters high, diameter at the cloud 250 meters, in the middle - 42 meters, at the water - 70 meters. Around its base 'hung' a cloud of water spray 215 meters in diameter and 120 meters high.

Waterspouts 'live' from a few minutes to 3 or 4 hours. They may stay in place or slowly move, but sometimes the speed of their movement reaches 45 to 60 kilometers per hour, and in isolated cases, 150 to 250 kilometers per

hour.

Observations over a period of centuries have permitted the receipt of data from outside the phenomenon only. Information about the internal thermodynamic structure is extremely scarce. In the literature there is only one known case of measurement of atmospheric pressure in the center of a waterspout: on 27 March 1958, at the mouth of the Tejo River, near Lisbon, a waterspout passed directly across the bridge of the ship MARSEILLES and quickly disintegrated. The ship's barograph fixed the pressure drop at 21 millibars. The wind force reached 10-11 (Beaufort scale); visibility was reduced to zero due to heavy rain. /94

The swelling of the surface of the water under the base of the funnel attests to the pressure drop in the center of the waterspout. In the center of a powerful waterspout, judging from indirect calculations, the pressure drop may reach 40 mb or more. In isolated cases, we observe not a swelling up but sagging of the water surface beneath the waterspout. Some scientists explain this by a hydrodynamic shock of the water vortex. However, this hypothesis requires verification.

Instrumental observations of the wind speed in waterspouts are lacking, and until recent times it was determined only by the destruction caused by these vortices. In recent years, an indirect method of determination of maximum wind speeds was proposed for calculation, according to which it is necessary to know the ratio of the overall length of the waterspout to the length of the visible part of its funnel next to the cloud. Maximum wind speeds of 90 meters per second in large waterspouts are obtained using this method.

One of the few more or less detailed diagrams of wind distribution in a waterspout was offered in 1971 by the American meteorologist Golden. In September 1967, during a pleasure flight in a private plane near Miami together with friends (student meteorologists), he succeeded in getting a few color photographs and movies of two powerful waterspounts. The airplane flew around these water-

spouts in spirals, descending from an altitude of 600 to 240 meters. Processing of the photographs showed that the height of the "trunk" reached 750 m, the diameter at the cloud - 40 m, at the base - 24 m, and the diameter of the spray cascade - 39-45 m. Comparing characteristic details of the waterspout in successive frames, the scientist succeeded in calculating the wind speed in various parts of the vortical column. The maximum wind speed was observed at a distance of 12 m from the axis of the waterspout and was 65 m/sec. Its entire center (with a 10-12 m radium) rotated counterclockwise as a solid, i. e., at the same angular velocity. Farther than 12 m from the axis, the wind sharply attenuated. Besides rotation, an air movement within and upward was also observed.

It is supposed that a so-called cyclostrophic relationship arises inside the vortex, whereby the force of the drop in atmospheric pressure is balanced by the centrifugal force of the rotation of the air. In accordance with this hypothesis, Golden calculated the pressure drop in the center of the water vortex and obtained a value of 44.3 mb.

It is interesting that the rotation of air in a waterspout may be either counterclockwise or clockwide. For example, of 104 waterspouts observed in 1967-1968 off the coast of Florida, 30 rotated counterclockwise and 9 clockwise (in remaining cases, the direction of rotation wasn't established). /95

Some idea of the distribution of waterspouts over the globe was given by the English meteorologist Gordon. He reviewed weather reports from English ships from 1900 to 1947 and determined that most are formed in the Tropical Zone, near the southeast coast of Australia, in the central part of the South Atlantic, and in the Mediterranean Sea. In the temperate latitudes they are rarer; in the Arctic seas, they disappear completely. However, Gordon's calculations are highly approximate, since the ship's observations are confined to basic routes, and apart from these, there have been few observations.

Data on waterspouts in the Black and Azov Seas are cited in the works of D. Starov and N. Popov. They confirm that over 30 waterspouts occur in 10 years, and the majority are formed in the Sea of Azov and along the Caucasian littoral of the Black Sea. Waterspouts are recorded in the Gulf of Finland and in the Sea of Japan. In more northerly latitudes, waterspouts are observed in the White Sea, near the Solovetskiye Islands.

Overall data on seasonal changes in the number of waterspouts arising are lacking, but it can be assumed that the frequency of their occurrence during the year must change synchronously with cumulo-nimbus and thundercloud activity in the atmosphere. The sparse, fragmentary data on the daily course of waterspouts are insufficient, since they are not visible at night (with the rare exception of luminescent waterspouts).

Are waterspouts dangerous to warships and merchant vessels?

The destructive force of a waterspout arises from the influence of gale winds, the shock of the water carried with the vortex, and also the effect of a sharp drop in air pressure at its center. Therefore, an encounter with one in the time of the sailing fleet often ended rather sadly: it tore away the sails, broke the masts, and perhaps even capsized the vessel. The aforementioned Dampier quotes the records of the captain of the English frigate BLESSING (300-ton displacement), which encountered a waterspout off the coast of Guinea in 1674. Several waterspouts were seen from the frigate, one of which moved directly toward the ship. Due to the light wind, BLESSING wasn't able to evade the waterspout, and the crew prepared to meet it. They struck all sails. The waterspout approached rapidly, with a terrible noise. The sea around it boiled. The first shock hit the starboard bow. At once the bowsprit was torn off and the foremast was broken. From the terrible gust of wind the ship listed violently, and when she righted herself, the waterspout attacked anew, but by then from the other side. This time it broke the mizzen mast. Three men on the

foremast and one on the bowsprit fell into the sea. With the surviving mainmast the frigate barely reached port.

It is not difficult for a modern ship to avoid an encounter with a waterspout, but if by chance it passes across a ship, it might cause appreciable damage. Here is a description of an encounter with a waterspout by the American steamship GESTIA off Cape Hatteras in 1902, related by Gordon. During an intense and prolonged thunderstorm, several waterspouts were formed. The very largest made its way towards the ship. To stay clear of it was impossible. The captain ordered all members of the crew to take cover in inner compartments, and he remained on the bridge until the last moment, and then also went below. From the strong shock, accompanied by a deafening roar, the ship began to shake. Having gone up to the bridge, the captain saw, soaring in the air, tarpaulin covers torn from deck machinery, a large plank, a log line with a current meter on the end, and other objects.

On the night of 30 March 1923, in the Central Atlantic, the steamship PITTSBURGH encountered a waterspout. Instantly tens of tons of sea water fell down on the superstructure, damaged the bridge and charthouse, flooded the upper cabins, and shorted out the ship's electrical system. In order to repair the damage, the ship had to stop /96 for some time.

Some waterspouts, upon reaching the shore, disintegrate, while others, more powerful, penetrate deep overland for considerable distances. Here are some examples. On 16 September 1966, a waterspout came from the sea to the shore of Singapore Island, in the vicinity of a swim club. Passing 50 meters along the pool, it ripped out 7 metal umbrellas weighing about 30 kg apiece, and scattered them over the grounds of the club. One of the umbrellas was lifted to a height of 60 meters.

Black Sea waterspouts often reach shore, not losing their force, but on the contrary, increasing it. On 14 July 1924, a waterspout, proceeding 2.5 km along the

shore, turned inland at Temryuk. On the steppe it lifted three young herdsmen. One was found dead, the other two disappeared without a trace. At the seashore, it lifted a launch and fishing boat into the air and carried them 100-150 m, together with 7 fishermen aboard. One of them was killed.

Waterspouts reach the coast of the Mediterrean Sea rather frequently. Thus on 22 December, 1969, after a violent thunderstorm with unusually large hailstones, six waterspouts descended upon the coastal regions of the island of Cyprus. One of them-the most powerful-about 200 m in diameter, penetrated 4 miles into the island, in the vicinity of the city of Limassol. In its path it left demolished houses, torn-off roofs, smashed motor vehicles, and trees torn up by the roots. Three people were killed.

Every year we hear of the destruction caused by waterspouts in various regions of the globe. Unfortunately, meteorologists still do not have methods of forecasting waterspouts. The forecast can include only the conditions favorable for their generation. However, it is necessary to avoid encounters at sea with even a small whirlwind, as its development proceeds rapidly-in a few minutes it could turn into a powerful waterspout and inflict significant damage on a ship.

Photograph captions, p. 93: Six funnel-"trunks" above the Sulu Sea in the Philippine Islands.

p. 94: Waterspout with a large cloud of water spray.

MORSKOY SBORNIK, No. 10, 1972, pp. 54-57.

ON A LONG CRUISE

by

Captain 1st Rank V. Dukel'skiy

Prolonged ship cruises far from home shores in /54
latitudes of high temperature and humidity call for great physical effort and morale on the part of the crew. Under such conditions it is very important to organize spare time properly, to lower nervous tension at the proper time, and, thus, to decrease fatigability of the men.

Some experience in the organization of rest has already been acquired. A plan for group cultural activity is drawn up for nonworking days. Its aim is to meet the cultural needs of seamen, inculcate patriotic feelings and a desire to fulfill their military duty with honor. Along with discussions, lectures, meetings and radio broadcasts, the plan includes athletic activities. Various kinds of competition occupy a prominent place therein. Usually they take place while anchored in a roadstead and involve the maximum possible number of sailors, since fewer men stand on anchor watch than on underway watch.

Boat races arouse immense interest. A decision to conduct them is made only after a careful analysis of the weather and a check of the equipment. A seagoing launch equipped with two-way radio communications equipment follows the boats. The races, as a rule, are conducted with a wind not in excess of 3-4 and an ocean swell of 2-3.

At the designated hour the participants in the boat races come to the flagship. The ship's company falls in. The detachment commander sets the task and explains the plan of the races. Here on the quarterdeck there is an orchestra. The sports fans are scattered throughout

the superstructures. The progress of the races is broadcast throughout the ship, and the information relayed to the personnel of other ships. The races are conducted with oars, under sail, in combination, and with a change of crews. Experience shows that even with one six-oar boat on a ship competition may be held in which representatives from all subunits can take part. In the detachment in question here, /55
3-4 boats participated at one time.

Relay races with changes in crew enjoy the most popularity. Each ship was given one boat. The first to row up to the side changed crew. Such a relay required little time but involved a significant number of participants.

In these contests, especially sailboat races, it is easy to see who among the officers has kept in shape. The boat is also a reminder of his cadet years. For example, our Captain 2nd Rank M. Khronopulo, an experienced sailboat skipper and a participant in many Fleet competitions, has always finished first.

After the races, the crews mustered on the quarterdeck of the flagship and the winners were awarded prizes and certificates.

Among other sporting activities widely practiced was a military relay race. The participants dissemble a machine gun, carry the wounded and...clean potatoes; participate in a tug of war, quiz contests, and exhibitions.

On the ships there are many fans for competition such as fishing. While at anchor the Commanding Officer of the ship determines the place and time of the competition. A judging committee establishes the procedure. Prizes are given to those who catch the smallest and the largest fish. These contests had a practical side - practically every day at anchor fresh fish was provided for the table.

Once a cooking contest for seafood dishes was organ-

ized. The "tactical problem" emerged unexpectedly: at the end of three hours the best seafood dishes were to be presented to the flagship. Attention was paid to both the tastiness and the esthetic properties of the dishes. Twenty-four seafood dishes were presented at the contest, beginning with stuffed fish and ending with pies. A special jury not only determined first place but also recommended the more tasty dishes for the crew. Thus they obtained "a start in life" with superb fish pies and several other dishes.

The personnel received amateur performances enthusiastically. Amateur groups performed not only before their own crew but "went on tour" to other ships. Every movement of personnel at open roadsteads with a constant, rather large ocean swell demands efficient /56
organization of work and skillful use of floating craft.

Mass sports competitions and concerts are usually conducted on days off and on the day before. The ship's sportsmen devote a significant amount of time to training, both underway and at anchor.

In calling at foreign ports, one is constantly persuaded that the most popular sport is soccer. Frequently, in conducting friendly matches, we have found inequitable conditions: the hosts have fielded the best players in the town, and then, too, in a country where they are accustomed to a hot climate; and a national team from our ships did not have an opportunity to train regularly on a field. Therefore, after the first defeats the command took the training of teams aboard ships under its control.

Volleyball matches were conducted aboard the ships. The net was stretched and the ball fastened to the deck or superstructure by a fine nylon rope.

At sea the opportunities for organizing mass sporting events were limited. Both boat races and fishing were excluded. Amateur concerts, various quiz contests KNV* and

*Translator's Note: Unidentified Soviet abbreviation.

some athletic contests (for example, free-style wrestling remained.

While calling at foreign ports, there was very little leisure time because of a full program. In general, movies were shown and concerts organized. Amateur groups performed at our embassies and on board Soviet ships. If it was possible to set aside time in the program for personnel to go swimming (on business calls such an opportunity presented itself), the men were taken to special beaches. They took excursions to historical sites and acquainted themselves with points of interest.

Despite adverse navigation - high temperature, the absence of special spaces and running water for processing movie film--many film buffs contrived to make narrow film (8-mm) movies which they then showed before the beginning of the performances in place of the newsreel. Movie films made by officers E. Yurchenko, Yu. Kuts and Yu. Vetoshkin depicted life aboard ship, visits to foreign ports, and holidays, including "Neptune". The movies of officer Kuts were shown more than once on local television. They also made a 16-mm film, dedicated to the celebration of the anniversary of the Great October Revolution, a naval parade on the ocean. Everything was done in accordance with conventional practices: both subtitles and editing. The picture was shown on ships of the detachment. It was well-received by the personnel. A film documentary, entitled "Traveling Across Three Oceans," was also made, which, while not pretending to be any directorial triumph, did sequentially detail the course of our trip.

I dwell for a moment on the repertoire of the films shown on cruises. In selecting them for ships going on a long cruise, it is obviously necessary to involve the Commanding Officers, political organs and sometimes psychiatrists. In our opinion, the films should be patriotic history, popular science, geography related to the areas involved in the cruise, adventrues, and - finally - comedies, such as "Merry Youths," "Volga, Volga," "Colorful Voyage," "Carnival Night," etc.

And now for a few words on the organization of holidays. The top program on every cruise is the lively "Neptune" celebration. As a rule, this is planned beforehand. The program is worked out and rehearsed. The holiday must have not only an entertaining aspect. It is also necessary to impart significant meaning. For example, the lord of the sea observes the otlichniki* and censures those who infringe discipline. A patriotic

*Otlichnik - One who has been declared outstanding by his CO in combat and political training.

purposefulness, pride in our Soviet ships that ply the seas and oceans, and the friendly, international character of our cruises and prospective calls and visits must permeate the whole program.

There is still one more ceremony which arose on the missile ADMIRAL FOKIN. Personnel of the Engineering Department prepared a large handsome key - "a key to the ocean." Returning homeward, our Commanding Officer gave /57 it to the CO of a ship we met at sea.

As a rule, the majority of holidays occurred at sea, far from the Motherland. Despite this, the men fully perceived the holiday atmosphere which reigned in our country.

Knowing in advance that we would greet the New Year at sea, the command took pains to obtain artificial evergreens, toys, snow maidens, and Jack Frosts. Of course, at a temperature of +35°C it was difficult to imagine snowdrifts and our winter towns and villages. But the holiday concert and traditional dinner on the mess deck, in the officers' mess, in the wardroom, and the detachment commander's congratulatory speech on the radio, the broadcast from Moscow, and the greetings received from the Commander-in-Chief of the Navy, from the Commander of the Fleet, from relatives and acquaintances--all this shortened the distance. The seamen felt at home.

The celebration of the anniversary of the Great October Revolution was organized in an interesting manner. The

ships were anchored in a roadstead. The detachment commander decided to conduct a naval review. The personnel were mustered. The flagship launch enriched the formation of ships.

In celebrating holidays, if this occurred while anchored, the ships exchanged delegations and amateur art groups.

Solicitude for the leisure time activities of the ship's company at sea - this is always a concern for the good spirits and health of the men, and for the high level of achievement in combat training tasks.

Photographs - p. 54, Caption: Papa has returned from a long cruise.

p. 55, Caption: They play volleyball enthusiastically in the Indian Ocean.

p. 57, Caption: They stroll aboard a yacht in a fresh breeze!

MORSKOY SBORNIK, No. 10, 1972, pp. 57-60.

WHEN EVENING COMES

by

Captain 2nd Rank V. Syseyev

Evening. A small city on the Baltic Sea. The /57
sounds of traffic subside; home come to life. Through open windows is heard the frantic cacophony of radios, record players and TV's.

With rare persistence, my young neighbors play the same phonograph record over and over again: the songs of the popular "Raphael".

"Listen, isn't that enough? Isn't it time to change the record?" says an exasperated neighbor.

"What do you mean? Don't you think its lovely?"

"No, I don't."

Following this dialogue there is silence. But on the next day it all begins again. I turn on my radio-record player. Glinka's "Doubt" and Bellini's "Farewell to Naples" evoke from my memory the musical exercises of my skillful Spanish music teacher.

The power of true art is great: my annoyance is past, all trivialities are forgotten, my thoughts become clearer and deeper. Why is it that people succumb to popular fads and fancies?

It's not so easy to answer this question. Tastes and /58
inclinations vary. Let me cite some of my friends and comrades in the service: one, an inveterate amber fancier, is always ready (regardless of the weather) to fish a sunny rock from the waters of the Baltic and creates marvelous trinkets and even colorful panels; another, an artist, sketches at the seashore; a third is a bookworm and an author as well; a fourth...And in this background

of enthusiastic, gifted people who use every spare minute for the pursuit of their favorite pastimes, it is sad to see the admittedly rare person who exchanges the variety and fullness of life for popular fads, or, still worse, is stupefied with malice and prejudice. When you visit such a man you see no books, no work-bench, not the slightest evidence of any outside interest. You begin to wonder.

"Well, what can you do when you live in the backwoods?"

"You call this the backwoods? Have you read a single book in the past year?"

"What do you mean? I don't even have time for the newspapers."

It's a tedious discussion. Somewhere we must have failed the man. We didn't cultivate his creative fiber and now he's totally lazy intellectually. And so his service life is all just "to and fro"--without initiative, or indiffent.

For the creative man, there is time for everything - he works and relaxes with enthusiasm. But the other one stares into his wine glass and barely manages to cope.

Outstanding officers are careful both with their working hours and with their time off. In the pursuit of their personal interests, they perfect their knowledge, and devote considerable attention to their family and the upbringing of their children. The well-rounded officer takes advantage of his free time to enjoy nature, sports or a favorite form of art.

Lenin's classical formula has become the motto for our time: "One can become a Communist only when he has enriched his mind with an awareness of all created by mankind." This definition also indicates the method of learning: not passive expectation of spiritual blessings, but, on the contrary, active inquiry and self-education. Not only esthetic delights, but above all the work of the mind,

participation in the process of creating intellectual treasures.

The Army and Navy are the "school" for the military, political and cultural-esthetic education of servicemen. The officer is the instructor in this school. But where do they themselves acquire the necessary knowledge and skills? Initially in school of course, but afterwards...?

The Officers Clubs do a lot to organize leisure-time acitivities but, let's face it, they are not all successful in this effort. Often an Officers Club is just an auditorium, a dance hall, an uncomfortable reception room with a lonely TV stuck in the corner.

In order to create a homelike environment, it is necessary to take into account the interests of the various types of people who come simultaneously, but the budget does not allow this. And so, as the saying goes, the old and the young must gather together. The senior officers are scandalized by the ultramodern dances, while the junior officers feel ill at ease in the presence of venerable superiors. Finding no relaxation in this environment, they gradually drift to the buffet, where differences in age and taste are obliterated.

It is interesting to note that enthusiastic, creative people are reluctant to visit the cultural "centers" of the garrison, preferring a domestic environment. And this is no accident. Here it is much more interesting - the prevailing atmosphere is one of spiritual communion between inquiring and supple minds. There are conversations, differences of opinion, mental stimulation. The last word was true, and it will be manifest tomorrow in the work of the participants.

I am very fond of these appealing people. With them you can always find an interesting book, hear some good music, or go hiking with a campfire, enjoying fish soup and mushrooms on skewers.

Take one of them - Aleksandr Sosenkov, a disciplined, outstanding sportsman; he knows his job well. On

duty, he is the idol of his subordinates, and a model for them to emulate. Off duty, he is a conscientious family man, a lover of books. Not one new publication escapes his notice. He is past forty, but he is adroit and agile.

Another example is political worker Mikhail Zozylya, /59
a man of a different temperament than Sosenkov, somewhat similar to him. He is well versed in the fine points and complexities of Party work, disciplined, self-contained and at the same time a mycologist, hunter and collector of amber. His creativity is also evident in the articles he publishes in the naval press, and in the ornamental pieces of stone which decorate his apartment. Particularly striking is a vase with a portrait of V. I. Lenin, inlaid in small stones of differ- shades.

I can name dozens of people with different avocations and characters, but they are all united in one thing: creativity. With their help tastes are developed, incorrect notions are discarded and a benevolent atmosphere is created which, in the final analysis, serves to educate people. This process cannot be measured, but it must be taken into account.

In my view, the Fleet Officers Club, in planning major undertakings, must take into account the interests of different categories of officers. For instance, it would not be a bad idea if each Officers Club would set aside comfortable areas for homemade, chatty discussions. It is also necessary to establish studios for photography and recording, a workshop for skilled craftsmen, etc. I don't know how it is in other places, but our Officers Coub doesn't have such facilities yet. Of course, there is much of interest in such plans, it is all predicated on a large audience, and indeed the success of education and spiritual enrichment depends on the little things.

It is a sign of the times - one must not underestimate the power of a movie screen. Therefore, in my view, not only and not primarily lectures, concerts, movies, etc., but a daily running account of varying tastes, interests, vocations and inclinations. One cannot expect

the Officers Club to generate profits like a business, so it must become a private club, with by-laws consistent with the officers' moral code of honor. If a member misbehaves, if he spends all his time at the bar - strip him of his rights in his own club.

Such a step is essential! One is especially convinced of this when one sees the frequently half-empty auditorium and the overcrowded cafe where of all sorts of people are gathered. Private evenings organized rarely by someone or other for officers and their families do not compensate for daily revelry. Young officers and bachelors do not attend quiet family get-togethers. They prefer to mingle in a crowd. How can they be encouraged to come back? Only by removing all strangers from the Officers Club, only by organizing the youth in small groups according to their interests, only by generating maximum comfort and warmth, only by influencing their minds and hearts with the great treasures of true culture instead of low-grade war movies.

Of course, this will require persistent, subtle, thoughtful effort. Perhaps it will also be necessary to review the staffs, and cadre compliance with current directives, and maybe do some reorganizing. But this is necessary, if we are to approach the problem of education not perfunctorily but as required by the resolutions of the 24th Congress of the Communist Party of the Soviet Union.

But nevertheless man himself remains most important, as well as his ideology, his attitude toward self-education. If he reaches adulthood preferring certain pop singers to Lemeshev, or preferring popular adventure stories to Lev Tolstoy, the Officers Club cannot help him. Such a man needs long-term professional help, utilizing all forms of suggestion and persuasion.

In Yefremov's novel "The Mists of Andromeda," which seeks to describe Communist society, there is an interesting thought. In essence, it is that each intellectual attracts to himself disciples, for whom he serves as mentor, teacher, educator, guide to life. There are current examples of this in real life, in which

an outstanding personage attracts a group of people with interests and inclinations similar to that of their intellectual mentor. Creative people - actors, scholars, literateurs, musicians, etc. help the dilettantes by directing amateur art activities, organizing clubs, interest groups and special schools, where they convey their knowledge, experience and skill, at the same time imparting high moral qualities. If each so possessed finds himself a disciple, the circle of enthusiasts will /60
grow until there is a chain reaction and a qualitative "explosion".

All of our cultural institutions must be more active in seeking out gifted people, enrolling them, and guiding them toward a further search and work among the masses. In other words, a nucleus must be created from the officers themselves, and conditions created for them to discover their own talents, and help them to become teachers for an even larger circle of people. Unfortunately, some of our cultural institutions utilize creative people only when preparing amateur concerts, and then forget about them.

On autumn evenings a small group of young officers usually drifts to the Officers Club. When they leave well past midnight, will they be enriched by ideas, plans and knowledge, or will they be worn out from dancing?

Will a brilliant, strong intellectual pass their way - who will bend them to his will, draw them to new interests, awake in them all the good which still lives in the echoes of their youthful dreams and their fathers' exhortations?

MORSKOY SBORNIK, No. 10, 1972, pp. 60-62

THE SPARE TIME OF AN AVIATOR OFFICER

by

Lieutenant Colonel V. Vidomenko

Spare time...Even K. Marx referred to it as a measure of public wealth. But it can only be counted as wealth if it is used for the manifold development of man and his capabilities, and when it affects one's productivity. /60

In our land all of the conditions for harmonious development of man, for improving his education and culture, health care and leisure have been created.

"But can it be said", L. I. Brezhnev remarked at the 15th Congress of Trade Unions, "that the conditions created in our land granting to the Soviet people free time are being utilized everywhere to pursue those goals which will benefit both the worker and society? Unfortunately, we cannot say that yet."

"Frequently this time is wasted senselessly and sometimes downright harmfully for a man his coworkers and, in the final analysis, for society as a whole."

How then do aviator officers make use of their spare time? At the end of a normal day of intense military service, they return home, weary but satisfied for having done their duty. Their thoughts gradually turn from military to domestic matters, and to personal plans for time off.

The officers' occupations during their free time are most varied. For example, officer F. Matkovskiy spends time with a book, helps his wife around the house, and in the evening takes her out to the movies. On his day off, Matkovskiy works with school children. He is in charge of a Marxist-Leninist training group.

Officer Savel'yev has his own interests. He is a technician - always building something. But in addition he must read newspapers and journals: On Mondays, as a rule, he briefs his sailors on political news.

A large group of officers are increasing their political knowledge at the evening university of Marxism-Leninism, and many take college correspondence courses.

An absolute majority of officers spend their free time on such things as community affairs: political, general and professional education; improvement of military skills; and efficiency work. For example, officer Yu. Il'in has recently made about 10 efficiency proposals, the implementation of which contributed to an increase in quality and a decrease in the time required to prepare equipment. /61

The substance and benefits of free time are determined by the breadth and variety of individual officers' interests.

Unfortunately, one still finds officers who use their on-duty time for work, but their off-duty time for idleness. Some of them spend hours playing dominoes, or while away their time in restaurants. And this is the extent of their interests. A stern judgment awaits those officers who use their free time frivolously.

A waste of free time pointlessly interferes with an officer's ability to fulfill his military duties.

The Party organizations in our unit are not unmindful of the way in which the aviators spend their time. Evidence, even isolated, of instances of time spent carelessly, and of indifference toward expanded knowledge, broader horizons, household chores and child rearing, becomes a matter for official attention.

But there are exceptions to the rules. Weak control by Party organizations over the use of free time leads, as a rule, to undesirable results. Individual officers

(particularly the younger ones) without social commitments and without feelings of responsibility, start down the wrong path and permit unworthy behavior. That's what happened in one of our aviation subunits.

It took a lot of effort to implement the new regulations required to correct the situation. Together with the Party organization, political worker A. Dikiy studied the characters, inclinations and interests of the young officers. Before long a satisfying activity was found for each of them. Some were attracted to Komsomol work, others were chosen to edit "wall newspapers" or combat leaflets, or to be propagandists, still others became involved in amateur activities or sports. It had been arranged for all junior officers to be moved from private quarters to a comfortable hotel. During the evenings experienced aviators B. Pir'yev, V. Gerasimov, P. Lebedev and A. Kikiy helped the young officers to study Marxist-Leninist theory and master equipment and combat weapons. Officers M. Lukash and A. Kindyshev organized excursions to the Red Banner Black Seas Fleet and naval museums, to the combat Glory Room, and the Park of Heroes. Discussions of the heroism of military aviators were held at the bedside of Leonid Sevryukov, a Hero of the Soviet Union, eternally recorded in the annals of the subunit. A new Council of Junior Officers was elected and the responsibility for its performance was delegated by the Party Committee to officer K. Shilin, who has been thoroughly trained.

The Officers Club also improved its program. There were more frequent receptions there for veterans of the Great Patriotic War, for Heroes of the Soviet Union, and distinguished people of the kray and the oblast! This yielded positive results. The junior officers took much greater responsibility for the tasks assigned to them and military discipline improved. Many of them who had been called up for two to three years (including Feklin, Lichman, Bakunenko and Kuleshov) wished to remain in the Navy.

The free time of an officer must be considered part of the free time of his wife. The more time the officer spends with the children, the more so-called household

chores he does, the more spare time his wife will have, the more attention she will devote to cultural self-improvement.

Thanks to the efforts of the Party and government, the officers' material and cultural level has risen significantly in recent years. They live predominantly in comfortable quarters. In the military camps there are kindergartens and schools. But this does not relieve the parents of the responsibility for raising their children.

Officer A. Rybalko enjoys great authority among the aviators. He is a pilot and a flight commander with many military responsibilities. Still, he finds time for his young sons.

A father's affection lives long in the sensitive hearts of children, and with age it gives rise to a feeling of esteem for one's father, expressed through care for one's parents. /62

An officer, a commander, is the leader of a group of people. In the service he masters a number of related specialities and successfully relieves his colleagues at their battle stations. And one would think that also at home, where he is the head of the family, he must share the difficult domestic labor with his wife.

Unfortunately, however, among the wives there are those who don't look after their husbands, neglect their appearance, and excessively burden them with household chores, not taking into account the fact that an officer, especially an aviator, needs plenty of rest in order to successfully fulfill his service obligations.

Officers are responsible for the military and patriotic indoctrination of children. There are many opportunities for this in every military post. In ours, for example, it is not just servicemen who constantly visit the Park of Heroes and the Combat Glory Room, but school children from the grammar school. We have those who are enthusiastic about military-patriotic work, including

officers B. Kochetkov, M. Ozerov and B. Fedotov. During their free time they can often be found, surrounded by school children, at the bust of the Heroes of the Soviet Union. Their own children attend these discussions too. And it is not by chance that the sons of several officers have gone on to the military academies after finishing secondary school. A remarkable succession! Familiarity with the heroic history of our glorious Armed Forces implants in young minds and hearts a love of the Motherland and pride in her armed defenders.

The majority of officers are careful not only with respect to their own free time but also that of their subordinates. Still, there are occasions when, because of poor planning, the day's work is not completed. It becomes necessary to work after hours, and even on days off. Let's be honest: there are times when bored officers can be found at headquarters after hours. When asked "why are you not at home?" they reply: "My commander is working late, and he may suddenly require information." So there they sit, waiting. And free time lost cannot be regained.

There is not always enough free time for those officers who are taking university correspondence courses, and are in charge of political study groups. Once, just before final exams at the Marxist-Leninist evening university it was discovered in checking that Lieutenants Magritskiy and Potapov had failed to take their examinations on time. These diligent, industrious officers were the victims of insufficient free time.

Free time is a powerful factor in the spiritual growth of each worker. As we progress toward Communism, possibilities increase for the creation of a new man who harmoniously embodies ideological depth, cultural wealth, moral purity and physical perfection.

The Party attaches great significance to the proper, fruitful use of free time in furtherance of the capabilities and creative activity of the Soviet people, who will create material benefits or defend the interests of the Motherland with weapons in hand.

The intelligent use of their free time by officers is one of the major factors in their spiritual and physical growth, and is beneficial to the fulfillment of tasks confronting subunits.

MORSKOY SBORNIK, No. 10, 1972, pp. 87-89.

PROTECTION OF WOODEN HULLS FROM ROTTING AND DAMAGE FROM SEA WOOD BORERS

by

Engineer V. Arkhipov and Engineer I. Danilov

Wood is still widely used for constructing the hulls of seagoing vessels of various types. Experience in the use of wooden hulls has demonstrated that they require special safeguards against fungus rotting and damage from sea wood borers. Portection can be of two kinds: structural and chemical. /87

The structural safeguards are based on an attempt to prevent "stagnant" volumes of air and water in the vessel's spaces. Maintaining constant "circulation" in the spaces, the designers must first of all properly distribute the vessel's ventilation, and the number and location of ventilators, taking into account the volume of the ventilated spaces, their configuration and the concentration of equipment and machinery.

In spaces where "stagnant" volumes of air may appear, mold forms on the components of the hull structures, and decay sets in.

The accumulation of water in the hold also facilitates the development of mold and the appearance of wood-destroying fungi in the wood structures. To drain off accumulated water, several drains are installed, and to prevent water from seeping inside, the hull is waterproofed. /88

The personnel must air the spaces and hold at the proper time, always keeping them dry. It is impermissible, without the knowledge of competent organizations, to construct compartments in spaces or holds, to install bulky equipment. This of necessity destroys normal ventilation and creates a favorable "climate" for the formation of mold and fungus on wood structures.

Observance of the enumerated measures, as well as the use of seasoned wood products, increases the service life of wooden hulls.

To protect the underbody of the shell plating the hull from sea wood borers, it is necessary to insulate them from the sea environment. The wood is primed for this purpose, the upper works are painted, and the underbody is covered with copper or brass sheeting. Protection of the interior of the hulls of wooden vessels is ensured more easily: it is sufficient to find the focus of the infestation of the wood in time. Repair-refitting work for hull structures within a vessel does not require special expenditures of time, because the defects are discovered immediately. Infested wooden areas of the shell plating in the underbody are detected only after the vessel is docked. This situation complicates preventive treatment of the infestation.

Experience in the use of hulls covered with copper or brass plating has shown that such an "armor" is not very reliable. In time it comes off the shell plating and the hull loses its protection against sea wood borers. Furthermore, the copper-brass sheeting increases the weight of the vessel which in the final analysis decreases its useful load with such a displacement.

In the last 10-15 years, hulls have been glued with PN-1 and PN-3 cold-hardened, polyester-resin-base fiberglas glue.

The use of fiberglas as a protective hull coating is advisable only for vessels with a displacement of 80-100 tons. Hulls of wooden vessels with a displacement in excess of 100 tons are relatively less rigid in heavy seas, when the vessel's hull is subjected to the action of significant bending moments and intersecting forces, which destroys the integrity of the fiberglas coating.

Disintegration of the coating occurs in the form of cracks and peeling of the fiberglas from the plating, and water seeps into the wood in the hull. Moisture also spreads under the coating to areas which are not disintegrating. Moisture in the wood may be increased through

water seepage from inside the hull (water from the hold and lower parts of the ship's spaces). An increase in moisture decreases adhesion of the fiberglas to the wood, decreases the durability of the layer of glue, and leads to further peeling of the fiberglas coating. Mechanical damage to the fiberglas coating arises also as a result of explosions and from striking floating objects, piers and adjacent vessels in mooring, etc.

Peeling sections of the fiberglas coating are usually suspended from the bottom or from the sides, and are therefore difficult to discover without a diver or without docking the vessel. Movement of the vessel facilitates further peeling of the coating through the action of hydrodynamic forces. Attempting to tighten the fiberglas with metal plates does not produce the necessary effect, because they are fastened with wood screws, which destroy the integrity of the coating. Moreover, these breaks are an additional channel for penetration of water into the wood in the hull.

Examination of wooden hulls coated with fiberglas has shown that breaks in the integrity of the coating appear in the form of peelings varying in size from 1 to 6 m^2 and bulges in places varying from 0.4 to 0.6 m in diameter, from which liquid flows when perforated. Peeling usually begins in the bow section of the bottom, then spreads to the stern.

One of the important factors in the operational reliability of ship hulls is their serviceability. Experience in maintaining fiberglas hull coatings attests to their unprofitability. Gluing fiberglas with cold-hardening polyethylene resins can be done at an ambient temperature of not less than +18° C and a relative humidity not in excess of 65%. It is recommended that drying take place in warm weather under natural conditions, and in all other cases through forced dry, warm air. /89

Fiberglas glued to the hull, with the ship beneath the keel (in the ceiling position), sags in several places and breaks away from the hull under the influence of its own weight. Locating the defective areas of the restored coating during repairs is frequently impossible.

All of this confirms the opinion of specialists as to the usefulness of developing new, more elastic types of fiberglas coatings and the use of new glues and reinforcing materials.

Chemical protection of wooden hulls involves impregnating the wood with chemical substances--antiseptics capable of resisting decay and the disintegration of wood by sea wood borers. Thus they protect, for example, the timbers of bridges, hydraulic structures, etc.

Experience in operating vessels with wooden hulls treated with antiseptics confirms the feasibility of such a method. The cost of the chemical substances in the impregnating compound is small. Restoring defective areas of hull structures while the vessel is operating does not require great expenditures, since only those hull areas subject to replacement or restoration are treated.

The dependability and effective duration of chemical protection of wooden hulls depends on the composition of the substances applied and the method of injecting it into the wood.

The basic and most dependable method of applying an antiseptic to wooden structures, and one that is widely used all over the world, is deep impregnation of the materials and all components of the hull structures. This guarantees preservation of the impregnated layer of the wood even while the vessel is operating, when damage to the external layers of the shell plating is unavoidable.

Surface application of antiseptics on wooden structures is less reliable in operation, because the treated layer of wood is partially disintegrated even during construction of the vessel while fitting the components of the hull structures. During operation, the number of defective areas increases because of cracks, dents, scratches in mooring, etc. Sea wood borers and wood destroying fungi penetrate the exposed areas. Further spreading of the infested area occurs under the

protective layer, inside the wood of the hull structures.

Deep impregnation of wooden hull structures was first applied to vessels under construction by Leningrad shipbuilders. They used the antiseptic BKhM-12. Such vessels operating in the Black Sea over a period of 6 years exhibited no wood destruction from sea wood borers. Vessels constructed from untreated wood and used for the same period of time had infested hull areas after the first year of operation.

In order to protect the wooden hulls of vessels from rotting, copper pentachlorophenolate, chrome-plated zinc chloride and triolite are used. They possess a high degree of toxicity toward wood-destroying fungi, are difficult to wash out with water, and do not lessen the adhesiveness of paint and varnish coatings. In chemical properties and ability to resist wood-destroying fungi, these antiseptics are equally effective. Their differences consist mainly in their ability to deeply penetrate wood. The technological processes of surface treatment have been well developed and described in appropriate instructions. But for complete impregnation of wood by antiseptics, research and development of the technology are required.

Present-day antiseptic hull treatment protects structures from rot and reduces the cost and expenditure of time for repair or replacement.

MORSKOY SBORNIK, No. 11, 1972, pp. 42-47.

THE MINE DANGER

by

Candidate of Naval Sciences
Captain 2nd Rank-Engineer I. Balin

Mines play an important role in combat operations /42
at sea. During the First World War, the fleets of the belligerents laid about 310,000 mines, and more than 600,000 during W. W. II. In 1944-45, the U.S. Air Forces alone dropped 11,000 mines near Japanese, Korean and Chinese ports, and in the Shimonoseki Strait - about 1000 mines. Losses by the belligerents of warships and noncombatants testify to the great significance of this type of naval weapon: in W.W. I, about 20% of overall losses at sea, and in W.W. II, about 20%. During the war in 1939-45, about 280 British warships and 300 transports were blown up by German mines--about 250 enemy warships and 800 noncombatants were lost to British mines.* In 1944-45, 22% of amphibious landing ships involved in American and British landing operations were sunk by mines.

*V. B. Khagen. Operational Problems of Mine Warfare ("Sea Power Today", a collection of articles, Voyenizdat, 1960, p. 218.

Tremendous expenditures of manpower and resources were invested in mine countermeasures. In the amphibious assault on Okinawa, the Americans used more than 100 minesweepers, and prior to the Normandy landing, the Allies activated over 300 minesweepers.

Mines have been especially effective in those cases where the other side has underestimated it. The mine danger grew in circumstances when it was ignored or when greater attention was given to other types of weapons. For example, at the end of the 1940s and the beginning of the 1950s, under the influence of mind-boggling possibilities of missiles and nuclear weapons, there was unjustified

From materials in the foreign press.

discrimination against mines and artillery in practically every navy. It was precisely under the influence of the nuclear missile "hypnosis" that even a power such as the U.S. reduced its interest in mine and mine countermeasures.

It is a well-known fact that in 1950 the U.S. unleashed a war against the Korean people. Despite the huge preponderance in manpower and equipment, the American aggressors were confronted with a number of difficulties, which denied them the attainment of their desired goals. Among these difficulties was the clearing of minefields containing obsolete mines which had been laid by patriots at approaches to the most important North Korean ports.

Mine warfare in Korea can be divided into two periods: (1) from the beginning of the war to the end of 1950. This period was characterized by several American amphibious assault operations, aimed at setting up beachheads for further offensive operations,* and (2) the period from the

* In foreign navies, the term "mine warfare" is understood to include minelaying and mine countermeasures.

beginning of 1951 until the end of the war, characterized by U. S. naval operations against the coast (blockades of the coast, bombardment of coastal targets, etc.) necessitated by the successful offensive of the Korean People's Army.

During the first period, of greatest interest was the U.S. Navy amphibious assault on Wonsan. This operation was undertaken to cut off the northward line of retreat of the North Korean Army. The landing at Wonsan, which involved the landing of approximately 50,000 men, had been set for 20 October 1950. Plans called for passage to the staging area to be completed by 15 October. On 10 October, two AM-type fleet minesweepers (with a 1200 ton displacement) and four wooden-hulled AMSs (250 ton displacement), attached to forces of the Third Minesweeping Squadron, arrived in Wonsan Bay and immediately began sweeping operations in the minefield discovered the /43

before by a carrier-borne reconnaissance helicopter. The main channel: from the 180-meter isobath to the proposed landing zone. Four minesweepers were pulling trawl nets, one was mapping the limits of the swept channel and one was firing at anchored contact mines which had floated to the surface. A helicopter flew ahead of the minesweepers reconnoitering the area for shallow mines.

*During that day a 1.5-mile channel was cleared between the 180-meter and 55-meter isobaths and the Americans succeeded in clearing and destroying 21 contact mines. However, in the evening the helicopter discovered a few rows of mines at the 55-meter isobath, located on the intended line of approach to the landing zone.

*Here and subsequently, data are cited from M. Cagle and F. Munson: "Naval Warfare in Korea". Translated from English. Voyenizdat, 1962, pp. 116-117.

The next day, UDT divers entered the area in shallow-draft landing barges and inspected this mine barrier and also the cleared channel.

On 12 October, the Americans attempted to conduct an "antimine air strike", in order to clear the shallow mine barrier. Forty-seven carrier aircraft were assigned to bomb a two-strip section. The two strips were 5 miles long and separated by a distance of 200 meters. The bombs were to be dropped at 200-meter intervals. The equal distribution of bombs was to be achieved by two lead aircraft, one of which would locate the target area by radar while the other aircraft, trailing behind, was to drop smoke buoys on signal from the lead aircraft, in the areas bombed by the following aircraft. The Americans themselves admitted that this "anti-mine air strike" was a failure, primarily because of poor bombing tactics: the waves of aircraft were quite extended, the bombs were dropped on voice command by radio, and the interval between aircraft was poorly maintained by sight. In addition, not all of the smoke buoys functioned properly.

The failure of the "antimine bomb strike" was further

reflected in the fact that minesweepers operating in the bombing strip cleared 13 mines and the lead minesweeper hit a mine and capsized in four minutes. (The squadron had been augmented by one additional AM and two AMSs). A short time later, a second minesweeper hit a mine and sank, while a third vessel was disabled and lay dead in the water due to an engine breakdown. The Americans then sent assistance to the small group of remaining minesweepers, consisting of several shallow-draft vessels with divers, helicopter and reconnaissance aircraft.

On 18 October, when it seemed that Wonsan channel had been completely cleared of mines, several explosions suddenly erupted near the minesweepers - they were from bottom influence mines. A South Korean minesweeper (IMS type, displacement of about 300 tons) had been blown up and sunk by one of these.

At that time, Vice Admiral Allen E. Smith, commander of the advance assault forces, who was responsible for minesweeping operations, characteristic sent two messages. The first, sent to CNO, began with the words: "The U.S. Navy has lost control of the sea in Korean waters...". In the second message, addressed to Commander in Chief, U.S. Naval Forces Far East, he reported that "at the approaches to Wonsan alone, there are between 2000 and 4000 mines, and in the Port of Wonsan itself at least 50-100 magnetic mines have been laid.* /44

* M. Cagle and F. Manson,"Naval Warfare in Korea." pp. 125-127.

With the detection of bottom mines, minesweeping operations were extended to 25 October. Meanwhile, on 19 October, the amphibious ships arrived in Wonsan waters. However, since they were not prepared to proceed to the landing zone, they had to put out to the high seas. It was not until 25 October that the task force was able to approach the LZ thru a cleared channel and land the assault force. But the need for this had already passed, since the port had already been captured by South Korean forces.

Thus a large American amphibious operation, which had been planned on a grand scale, was delayed for 5 days. About 250 ships with a 50,000-man assault force embarked had to "twiddle around" at sea all this time, waiting for completion of minesweeping operations which required 15 days instead of the anticipated 5 days. Under these conditions, had the defenders possessed naval and air forces, it would have undoubtedly led to the defeat of the landing.

Delay of the amphibious operation and loss of the three minesweepers were not the only consequences of effective application of mine warfare by Korean patriots. During this senseless movements of warships with their embarked landing forces, many of the Marines who were sitting aboard ship "like sardines" became ill with a particularly virulent form of dysentery (on one ship alone, the MARINE PHOENIX, 750 Marines contracted this disease). Neglect of the mine threat was, in fact, the reason the landing was not made at the planned time.

Confusion with antimine security in the assault operation at Wonsan is explained by the fact that during 1945-50, after adoption of the "massive retaliation" strategic concept, the U.S. Navy de-emphasized mine warfare. The following facts support that contention: during WWII the minesweeping forces of the U.S. Pacific Fleet numbered up to 550 vessels -- but at the beginning of the aggression in Korea there were, on station in Far Eastern waters, six coastal minesweepers and one fleet minesweeper. Most of the antimine ships were either transferred to the Atlantic Fleet or scrapped, and the Pacific minesweeping command was decommissioned in 1947. Nor was proper importance attached to the training of qualified specialists and scientific research in this area. As a result, the U.S. Navy was unprepared to take effective mine countermeasures, even under the most elementary conditions.

During preparation for the assault operation, U.S. commanders neglected to study the mine defenses in Wonsan harbor, although military-geographic conditions (an abundance of large shoals) were very favorable for

the use of mines for defensive purposes. The Americans didn't seem to be on the alert for the detection of floating mines, or the destruction of their ships by mines in the period immediately preceding the operation.

Insufficient attention to the problems of mine countermeasures was evident also in other U.S. Navy operations, as, for example, during the evacuation of troops from the port of Nampo.

In connection with the powerful counterattack of the Korean People's Army and Chinese volunteers (from November 1950 through July 1951) the interventionists (Americans) turned heel and began a panic-stricken retreat, and had to begin an emergency evacuation of their armies from the port of Nampo. The approaches to Nampo were characterized by shoals, favorable for mines. The Americans, concerned about this (with the experience at Wonsan still fresh in mind) and lacking a sufficient number of minesweepers, attempted to use aircraft in mine countermeasures. In particular, systematic reconnaissance flights were undertaken, which during the period end of November to the beginning of December 1950 detected about 240 mines.

Aircraft were also used to thin out the minefields. For example on 28 and 29 November, they dropped 48-50 kg bombs, which exploded four bottom influence mines. In all, according to U.S. data, in the waters near Nampo, /45
68 mines were destroyed by the end of November. Of that number 36 were destroyed by aircraft, 27 by UDT teams, 5 by minesweepers. In addition, 12 mines exploded during a storm.

Minesweeping operations in the Nampo area were also carried out by 12 American landing barges, launched from the LSD "CATAMOUNT" (displacement 4960 tons). The results of these barge operations are not known.

During the second phase of mine warfare in Korea, antimine forces engaged in sweeping operations in the areas where fire-support ships were operating. They cleared channels between the ports of Wonsan, Hungnam and Chongjin and swept for the purpose of deceiving Korean

patriots about the threat of invasion. At that time, the antimine forces were augmented by tank landing ship LST-799 (4000-ton displacement), with the staff of the Third Minesweeping Squadron aboard, plus several helicopters for mine reconnaissance and four inshore minesweepers (due to problems with the hoisting gear, they were soon transferred to the LSD COMSTOCK).

The helicopters conducted mine reconnaissance ahead of the lead minesweeper and inspected mine hazard areas. They destroyed floating mines with machine gun fire. However, the Americans discontinued this method of destroying mines when one mine, which had been detonated by machine gun fire, caused secondary explosions of other mines and a helicopter was almost lost.

In early 1951, in addition to the 3rd Minesweeping Squadron, the 2nd Squadron attached to the LSD COMSTOCK (flagship) was operating in Korean waters, with inshore minesweepers, a division of fleet minesweepers (six units) and the salvage vessel GRASP. During April, she swept coastal waters north of Wonsan, in support of coastal bombardment by fire support ships. In the beginning of May, in connection with the systematic replacement of minefields, a large part of the minesweeping forces began control operations in the Nampo area. These operations were conducted in the following manner: two or three minesweepers made a test sweep through the area with contact sweeps, in a broad formation, with a separation between the sweep zones. If no mines were cleared, then it was assumed that the area was not remined. If mines were cleared, the entire area was swept completely.

As a rule, units of the Korean People's Army's coastal defense forces took strong countermeasures against minesweeping operations. Their accurate fire sometimes forced the cessation of sweeping activities. About 10 minesweepers were seriously damaged in the process. In order to reduce the effectiveness of the artillery fire, the Americans were forced to begin night minesweeping operations, which were less effective than in daytime.

The mock daylight amphibious assault which the

Americans conducted on 15 October 1952 near Kojo (40 km south of Wonsan) is an example of the use of mining operations to deceive the Korean patriots. In the first approach to the shore, five shallow-draft inshore minesweepers were used. At 1300 meters offshore, the vessels came under heavy fire from a shore battery. The two rear sweepers cut their sweeps and steamed out of the fire zone at full speed -- the remaining vessels followed. Further attempts to sweep the channel with three coastal minesweepers also ended unsuccessfully due to heavy and accurate artillery fire. After that, much of the sweeping operations was conducted at night. At twilight, the minesweepers set up their sweeping gear outside the range of shore batteries. They then took up positions in formation and began steaming toward shore. Approaching shore, they turned and proceeded parallel to the coastline. Before daybreak, they managed to cover 60-70 miles. They then put out to sea, where they recovered their sweeping gear.

The forces of the Korean People's Army were able to create serious complications for the enemy, thanks to the use of mines. Specifically, due to the mine threat, minesweeping forces of the U.S. had to maintain continual control over areas where fire-support ships were operating, and also anchorages and channels with a total area of over 600 square miles. Despite all these measures, in 1950-1952 the interventionist naval forces had taken significant losses due to mine explosions (see table below) and personnel losses had exceeded 500 men. /46

Note: Table of Losses Suffered by Interventionist Forces in Korea Due to Mine Explosions

(see next page)

Losses Suffered by Interventionist Forces in Korea Due to Mine Explosions

Date	Vessel	Results of Explosion		
		Damage to Vessel	Killed	Wounded
9-26-1950	Destroyer BRASH	Heavy	13	34
9-26-1950	Destroyer MANSFIELD	Heavy	-	-
9-28-1950	IMS-Type Minesweeper	Heavy	-	-
10-1-1950	AM-Type Minesweeper	Sunk	21	12
10-1-1950	IMS-Type Minesweeper	Heavy	-	-
10-12-1950	AM-Type Minesweeper	Sunk	-	-
10-12-1950	AM-Type Minesweeper	Sunk	-	-
10-18-1950	IMS-Type Minesweeper	Sunk	-	-
2-2-1951	AM-Type Minesweeper	Sunk	6	5
5-6-1951	IMS-Type Minesweeper	Sunk	6	18
6-12-1951	Destroyer WAUK	Heavy	26	2
10-7-1951	Destroyer ERNEST G. SMALL	Heavy	9	-
12-26-1951	ASW Ship RS-704	Sunk	20	-
8-30-1952	Ocean Tug SEARCY	Sunk	-	-
9-16-1952	Destroyer BARTON	Heavy	5	-

It should be noted that units of the Korean People's Army did not have modern mines, but primarily used contact mines of World War II and even World War I vintage. These mines were laid by sailing and motorized junks, fishing sampans and other floating craft. The employment of the latest mines would have had an even greater effect.

Thus history teaches that underestimating the effectiveness of any sort of weapon, including mines, and insufficient attention to the means and measures to reduce their effectiveness can lead not only to direct losses, but indeed to failure of operations.

The U.S. Navy taking into account this experience reestablished in January 1951 the minesweeping forces of the Pacific Fleet and later the Atlantic Fleet as well. During the course of the war the Navy also placed orders for the construction of 125 new minesweepers. In early 1971, the minesweeping forces were reorganized and a single command was established with headquarters at the naval base in Charleston. All minesweepers were combined into three

flotillas, based at Charleston, Long Beach and Guam.*

*Navy Times, 26 May 1971.

In mid- 1971, the minesweeping forces of the U.S. Navy totalled 123 vessels (an inshore minesweeper tender, one mine exploding vessel, 60 ocean minesweepers, 22 coastal minesweepers and 39 inshore minesweepers). In addition, there were, in reserve, an inshore minesweeper tender, 21 ocean minesweepers and two inland minesweepers.*

*"Jane's Fighting Ships". 1970-71.

On the basis of the war in Korea, when helicopters were used for visually sighting moored mines, the Americans began to devote a significant amount of attention to using helicopters for minesweeping operations. In 1952, at Key West, a Pia'secki HRP-1 helicopter was used experimentally to tow Sweeping gear. Subsequently, these operations were expanded. Bell HSL-1 and SEABAT HSS-1 helicopters were used to tow minesweeping gear.* However, these helicopters were unable to carry the sweep /47

*"Jane's Fighting Ships", 1958-59, and "Flight", 1958, No. 2565-2576.

gear on board, and for this reason a special vessel was needed to place the gear and recover it. In the early 1960s Sikorskiy S-60, S-61, S-62 and S-64 helicopters were used to locate and sweep mines. They were capable of independently carrying and launching sweeping gear, and were housed in a suspended container. Since 1965, the U.S. Navy had adopted two modifications of the antimine helicopters: the RH-3A and CH-3C. In recent years, the U.S. Navy has commissioned the SH-3D SEA KING antisubmarine helicopter, which can be used in a minesweeping modification.* All of these helicopters have air-to-

*Rivista Marittima, July-August 1970, p. 59

air refueling capability, which significantly increases their flying time.*

*Interavia, July 1970, p. 833.

On the basis of experience in the Korean War, American naval specialists have reached a certain conclusion concerning a typical force for amphibious assault antimine support. In their view, such a force should contain

a flagship, a minesweeping group, one or two bases for antimine helicopters, one LSD with inshore minesweepers, a fast craft with UDT personnel and a hydrographic ship for navigational support, placing buoys in cleared channels, etc.*

*Yu. V. Skorokhod, P. M. Khokhlov. "Mine Countermeasures Ships". Voyenizdat, 1967, p. 14.

The Korean War also convincingly showed that effective mine countermeasures are unthinkable without well-organized mine reconnaissance. Under modern conditions, characterized by intense activity by both sides, this factor takes on extreme importance. For successful antimine operations, it is necessary to possess not only complete and reliable intelligence on the mine situation, but also to receive this information in the shortest time possible, in order to make a timely decision on countermeasures to reduce the mine threat in any given area.

The experience of past wars, including the Korean War, confirms the fact that mines remain one of the most effective means of waging armed conflict at sea.