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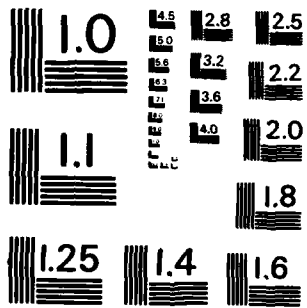
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TRANSLATION

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A YOUNG AND EFFICIENT NAVY

AUTHOR: FRANCO PUDDU

TRANSLATED BY: 9175

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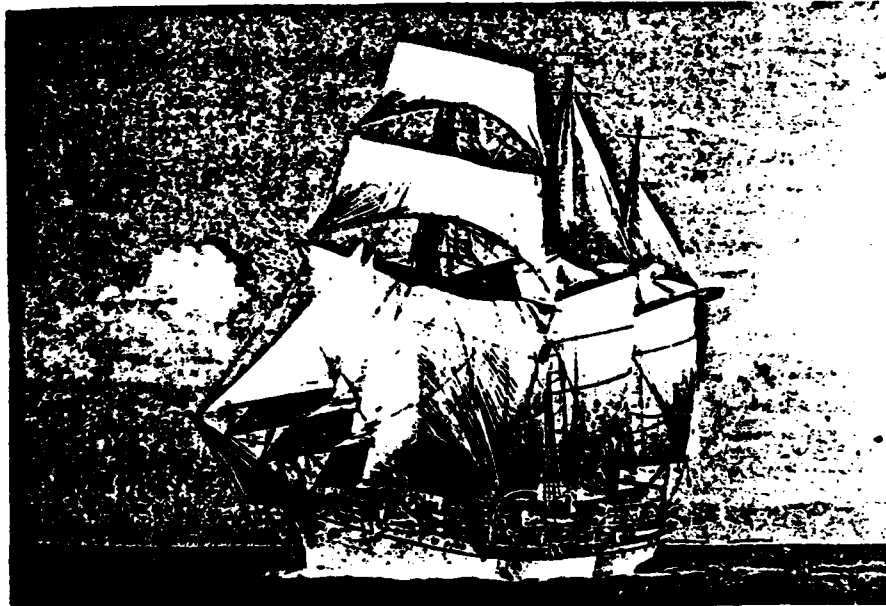
RATNA MORNARICA - THE YUGOSLAV NAVY /31*

A Young And Efficient Navy

[Puddu, Franco; Rivista Marittima, Anno CXVI, July 1983; RIVISTIMA MARITTIMA, Rome; pp. 31 - 48; Italian]

HISTORICAL ACCOUNT

As a nation Yugoslavia has very recent origins; it made its first curtain call on 1. December 1918 as the "Kingdom of the Serbs, Croats and Slovenes", when the regent Alexander Karageorgevich proclaimed its birth from the ashes of the defunct Austro-Hungarian Empire. However, Yugoslavia should be regarded as beginning as such only in 1929, when King Alexander as a result of a serious crisis dissolved the Parliament, suspended the Constitution and assumed full powers. The new head of state, General Petar Zivkovic, after having modified the internal structure of the government by suppressing the autonomy of the various /32 regions, instituted a special tribunal for the defense of the state, whose name was changed from the "Kingdom of the Serbs, Croats and Slovenes" to "Yugoslavia".



Training ship JADRAN

Another sixteen years would have to pass (after suffering through WWII) until the country assumed the actual form of a state in 1945. However, if the date of the birth of the Federal Socialist Republic of Yugoslavia is therefore close to the date of the birth of our (Italian) Republic, the naval and maritime traditions of the people who in the past inhabited the coastal regions are considerably older.

The Yugoslavia of today as a matter of fact includes the territory which the Romans called Illyria several centuries before Christ. And the fact that the coastal population of Illyria had definite maritime proclivities is attested by the fact that their (not always commercial

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

but quite often of a piratical nature) activities were such that they seriously affected the maritime traffic of that time. Therefore, between 230 and 228 B.C., Rome was constrained to send a battle fleet of some 200 warships to Scutari to "clean out" the area and to force the population to abandon its favourite sport of piracy. /31

This expedition succeeded in pacifying the Illyrian coast (which became a Roman province) and in making navigation safe in these waters but certainly did not extinguish the enthusiasm of these people for maritime activities. As a matter of fact, in the 16th century there are reports again of another group living in these coastal areas: this group was the Uskoks. /32

The Uskoks, as a matter of fact, seem generally to have taken to the sea to combat and eliminate the Saracen marauders, who put the towns of the Western and Eastern Adriatic to fire and sword, but as is often the case, opportunity makes thieves of us all, and if rich booty presented itself to them (the Uskoks), they certainly did not let it escape. Between 1615 and 1617 in fierce battles the Venetian navy destroyed the bases of the Uskoks and destroyed their fleet.

Because it was incorporated into the Austro-Hungarian Empire, the Yugoslavian territory did not assume an individual character until the end of WWI, as we noted earlier.

It should however be noted that the kingdom proclaimed in 1918 was born under the aegis of a Serbian dynasty, the Karageorgevich dynasty, and this certainly was not very welcome to the other major ethnic groups of the Montenegrans, the Slovenes, the Croats, the Bosnians and the Herzogevinians. These internal tensions continued as a matter of fact until WWII stilled the internal issues and united the people of Yugoslavia to resist together the forces which had invaded the country.

It should also be noted that the Yugoslav population and in particular the people of the more internal, independent and mountainous regions were of an especially fierce and bellicose nature.

This however, despite the desperate situation, did not prevent disputes and controversies from arising in regard to how to direct and conduct the struggle against the invaders. To the advantage of Yugoslavia, however, very soon the attention of the internal forces and those of the Allies was polarized by the personality and the ability of a young partisan leader, Josip Broz, known under the pseudonym of Tito, which assumed control of the war of resistance, who succeeded at least for the time in eliminating and palliating the hostilities and rivalries between the various regions of the country.

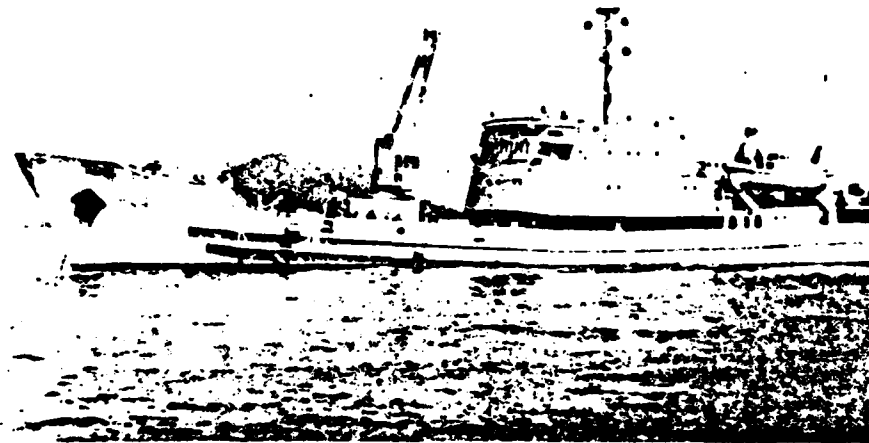
At this point we can note the first traces of the "Ratna Mornarica Jugoslavije", the Yugoslav Navy. The Navy, as a matter of fact, was born at least in embryo even before the Federal Socialistic Republic of Yugoslavia was proclaimed.

From the beginning of the armed struggle, as a matter of fact (in 1942) on the Yugoslav coast the partisan forces operated actively not only to make raids against the invaders to but receive reinforcements and arms by sea; the wild mountainous nature of the interior of the country in general prevented supply by parachute and made it necessary to use small landing fields.

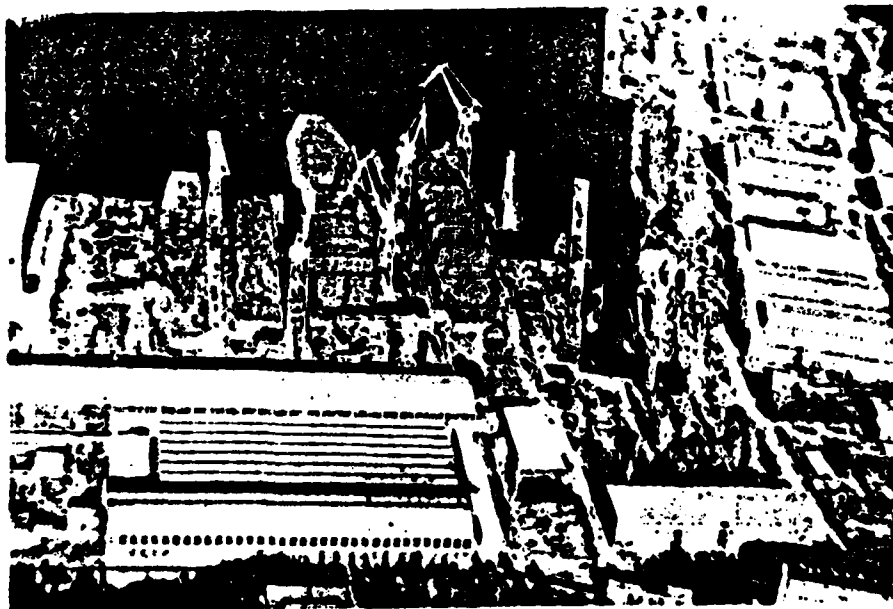
It was as a matter of fact very difficult to control the coastal area; the coastal area is very rocky, lacking in long stretches of sand, but full of small beaches, with the inlets of the sea in front, the coast is punctuated by a myriad of islands; this was the ideal theater for who knew the area to move and operate without the risk of being discovered.

For this purpose the partisans armed a certain number of small displacement fishing boats with cannon and machine guns and used them as armed transports, as escorts, and at times for short offensive sorties to land saboteurs at difficult points. One of these boats, the PC 22 STRELJKO has been preserved as a monument of those difficult days and can be seen at the Split naval base.

/33



The survey ship MOHOROVICIC



The port installations of the Split naval shipyard

In this modest context of small armed boats for coastal and amphibious short-range operations the birth of the modern Yugoslav Navy can be documented. When WWII had ended, as we have noted, the country assumed its current political configuration. /34

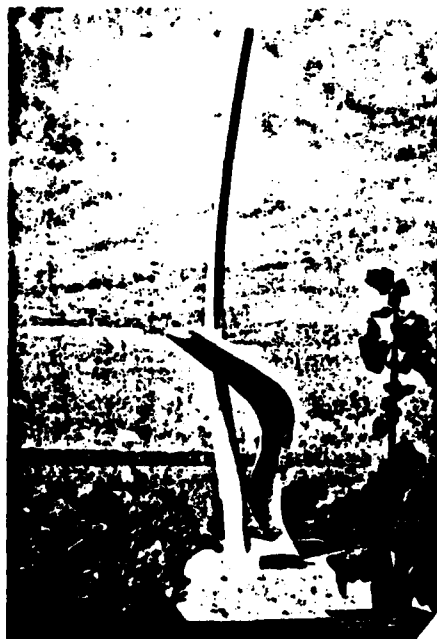
Within the scope of the Jugoslavenska Narodna Armija (The Popular Armed Forces of Yugoslavia) the navy was represented by the groups mentioned above, which were equipped with small heterogeneous units provisionally armed, and also with a small number of units obtained as war reparations from Italy and Germany. The Allies also contributed some motor torpedo boats, a naval auxiliary and two submarine chasers. The first actual Yugoslav naval program, which was approved in 1946, amazed Western observers: the rapid construction and commissioning of a number of units which was disproportionate to the actual needs of the country: 4 cruisers, 20 destroyers, 20 frigates, ca. 200 motor torpedo boats and more than 100 submarines, in addition to minesweepers and minelayers.

It is clear that at this time Yugoslavia, since it was a part of the Soviet sphere, was in danger of becoming an instrument of Moscow, which was attempting to gain an easy access to the Mediterranean. However, in 1948 the noisy break occurred between Stalin and Tito, who was unwilling to play the role which Moscow had assigned to him, and a first partial rapprochement did not occur until 1955. /35

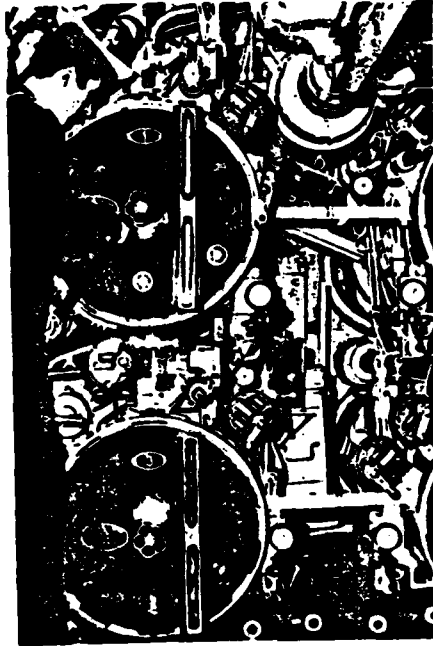
The plans for the internal reconstruction of the country, which had been devastated by the war, however were prosecuted, and included a consolidation and modernization of the armed forces.

THE FIRST STEPS OF THE NEW NAVY

Within the period of approximately 10 years, the Belgrade government succeeded in building a small naval force, which was modest but well balanced and adequate for the local requirements. The flagship was the SPLIT, a 3,000-ton destroyer, which was laid down in 1939, but whose completion was delayed by the war.



Split - Monument to Yugoslav sailors who died in WWII. The structure symbolizes the wings of a seagull.



Forward torpedo tubes No. 1 and 3 of a SUTJESKA Class submarine.

/35

Even after having been completed, the SPLIT could not be commissioned until 1958, when it was equipped with electronics and armament acquired from the United States.

In 1955, as a matter of fact, during a temporary thaw period with the USSR, within the context of the Eastern Block, the Warsaw Pact was established as a counterpart to the NATO defense pact initiated in 1949 between the countries of the West. Yugoslavia, as the only country of the Socialist block, refused to join the Warsaw Pact and assumed a definitive position of non-alliance. This resulted in a worsening of Russo-Yugoslav relations with a consequent stoppage of the supply of military and strategic materials.

However, as noted in the parentheses following, between 1946 and 1956, Yugoslavia acquired two destroyers (VALENTINE and WAGER, renamed KOTOR and PULA) from the UK, several French minesweepers and a patrol boat, also of French construction. /35

The domestic shipyards built several motor torpedo boats, launched two submarines of the SUTJESKA Class and succeeded in completing the SPLIT. Four ex-Italian frigates and an old minelayer from Germany (war reparations) and also 24 ancient Italian minesweepers (dating from WWI) were added to these units and a number of German motor torpedo boats (Schnellboote).

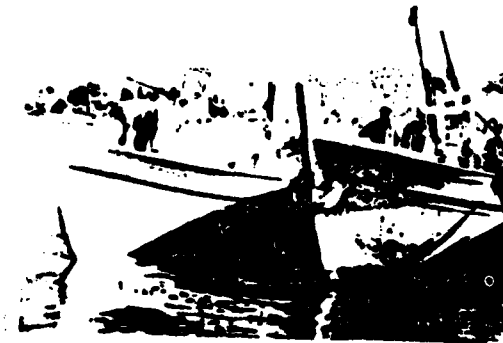
The greater part of these ceded units remained in service until the beginning of the 1960's.

Thereafter, from 1962, after a certain degree of reestablishment of diplomatic relations with the Soviet Union, things changes in a major way. However, before discussing the area of new acquisitions and new construction, first we have to consider the situation of Yugoslavia and its orientation in the event of war.

Because of the fluctuations and dislocations resulting from the relations with Moscow, Yugoslavia is in a definitely unique situation in the context of European socialist countries. Its condition of non-alignment, since it does not have any apparent or declared enemies, results in the fact that it cannot count upon immediate military alliances and assistance in the event of need.

On the other hand, the particular situation of the country and its location (a buffer wedged between the Warsaw Pact countries and facing on the Adriatic) make a real self-defense capability necessary. In this regard, Yugoslavia by exploiting the experience which it obtained during the partisan war has developed its own concept in regard to the possible conduct of wartime operations, which is adapted perfectly to the geographical situation, to the politico-social situation and to the psychological situation, in which the nature of the population which lives there is considered.

Since it is not a major industrial country and since it cannot count upon sufficient masses of soldiers under arms (which are moreover very expensive to maintain, the Socialist Federal Republic of Yugoslavia has developed a scheme of popular defense integrated with the action of the Armed Forces, which includes in the moment of need the entire able-bodied force of the population and which can put into the field (it is estimated) several million armed combat personnel with a period of three to six hours. In reality, the concept of integrated territorial defense is not new; on the basis of the partisan war, Tito has written: "Disrupt communications, destroy the means of transportation, perform ambushes and make surprise attacks: this will produce the maximum results with the minimum loss on our part." However, already from the time of the Napoleonic campaign in Spain, Jomini said in commenting upon the situation of the French troops: "...Every step meant a fight. The army which enters such a country only controls the territory on which it bivouaks. Only by taking the road by the point of the sword can reinforcements and supplies reach the army and its convoys are everywhere attacked and savaged..." and, in addition "The population can depend upon a strong nucleus of disciplined and trained troops. You only have an army, while your enemy has an army and an entire people or the major part of them ... you occupy only as much territory as that upon which you are encamped, and, outside of this, there is only hostility directed towards you, an hostility which multiplies in thousands of ways the difficulties which you encounter at every step..."



Fishing boats requisitioned and armed for auxiliary coastal patrol during an integrated defense exercise.

Within the scope of the Yugoslav Armed Forces, the use of a female component is not a novelty. During WWII the woman as a matter of fact often had the opportunity to fight alongside the men and to provide valuable services to the country. In the postwar period, very many women have been incorporated into the territorial defense units, which in case of need would enter into action to organize the previously mentioned total popular defense, the integration between the war of the people and the war conducted by the regular armed forces. In addition to this participation in the military life of Yugoslavia, a small number of women have formed a part of the Armed Forces for many years with the rank of medical officers, but this is a matter of specific instances. However, as of 1983, the female units will be expanded progressively more. In fact, from the first days of July of this year, the JNA (Yugoslav Popular Army) is accepting women in its ranks (in the age group between 17 and 29) who perform regular service. Until the first months of 1983 the suspense date for the submission of the requests will be fixed at the beginning of March, but from the moment at which the applications are made in a number which exceeds the anticipated number, the suspense (due) date is changed to the end of the month. The women who pass the physical-psychological examinations will have the opportunity to take officer training for military career and career NCO candidate training. The Directorate of Quartermaster Services and the commands included in the logistical infrastructure have already realized these latter objectives and together with a new line of uniforms which, while retaining the traditional military attitude, are adapted in regard to those refinements required to maintain a certain degree of elegance.

For those who want to utilize it there is also the opportunity to attend universities in a new way, i.e., in a military manner. The State will pay a stipend to woman students who request it (provided that they have attitudes and aptitudes which are regarded as being appropriate for such study); in exchange, the women, when they have obtained their degree, will perform service in a designated armed force for a period of time approximately double that of conscripted personnel (draftees).

Naturally, the new system is not definitive, but within certain limits, it is experimental. Until 1985, as a matter of fact, the trend and the productivity new woman recruits will be followed attentively in order to be able to judge if it is practical (even if there are practically no doubts here), but above all to be able to modify the recently created structure and to insure that progressively higher levels of productivity can be reached. For the moment it is not scheduled that the female component (absolutely on par to that traditionally composed of men) can have combat assignments, but will be used in auxiliary (support) roles (medical, telecommunications et al.) even, as required, on the front line or in operational naval units.

There's nothing new under the sun, but, by utilizing and exploiting/38 its own experience, the Greater Yugoslav State has succeeded in creating a system, which is simple in appearance, but which is actually much more complex than imagined, which would make possible for the country a long and vigorous resistance against an attack by any superior forces. In this manner countries such as Switzerland, Sweden, Finland, have for a long time conducted their planning. On the other hand, Yugoslavia also

considers the psychological sides of the proud people of the interior /38 regions, who, as experience has shown, are well versed in guerilla warfare, while they reject the idea of surrender. In referring to these points, the Yugoslav strategy is defined as being both of a defensive and offensive character, in regard to inflicting damage on the enemy whenever possible and without giving quarter. However, as differentiated from many other nations, Yugoslavia has adopted this concept of warfare, which would appear to be valid both from land and sea warfare. In case of need, the country would have the vital necessity of keeping its coasts free and clear, or at least the main points, in order to make traffic possible and to be able to receive supplies and reinforcements,



The cover of the military journal Front of 18. January 1983.

THE DOCTRINE

At this point two essential factors should be considered: the sea which washes the coasts of Yugoslavia and the effective maritime naval power which the country can marshal.

Point I: The Adriatic Sea has very special characteristics: its best landing areas are in the extreme north. In addition, it is composed of two basins, which are united, but which are very distinct from each other. The first goes from the Gulf of Venice to the imaginary line which connects Ortona to Sebenico and varies at maximum depths up to ca. 200 meters. The second, within the limits of the Otranto Channel, goes beyond 1,000 meters deep. In the first area, therefore, the use of units such as submarines would hardly be practical, while larger units would be compelled to be concentrated in a small perimeter, dangerous for the concentration of the units and dispersive for the distance which these would have in respect to the southern coasts.

Therefore, it would be useless for Yugoslavia to develop a large nucleus of surface forces or similarly a large nucleus of submarines. Such units, in fact, would be able to operate without excessive risks only in the lower basin with a preventive chain to engage any attackers by sea.

The attackers, however, would not be able to select easily useful bridgeheads for debarking troops/supplies, because in the south the coasts are essentially rocky, and as well, the coast is shielded by a screen of islands with shallows and fixed channels.

For this reason the Ratna Mornarica (Yugoslav Navy) provides for the use of: 1) a small nucleus of larger units for escort duty and for ASW; 2) numerous lighter and fast units with missile armament which are capable of performing ambushes away from bases, on an improvised basis, between islands or hidden in caves; 3) a small nucleus of submarines intended to operate in the southern area.

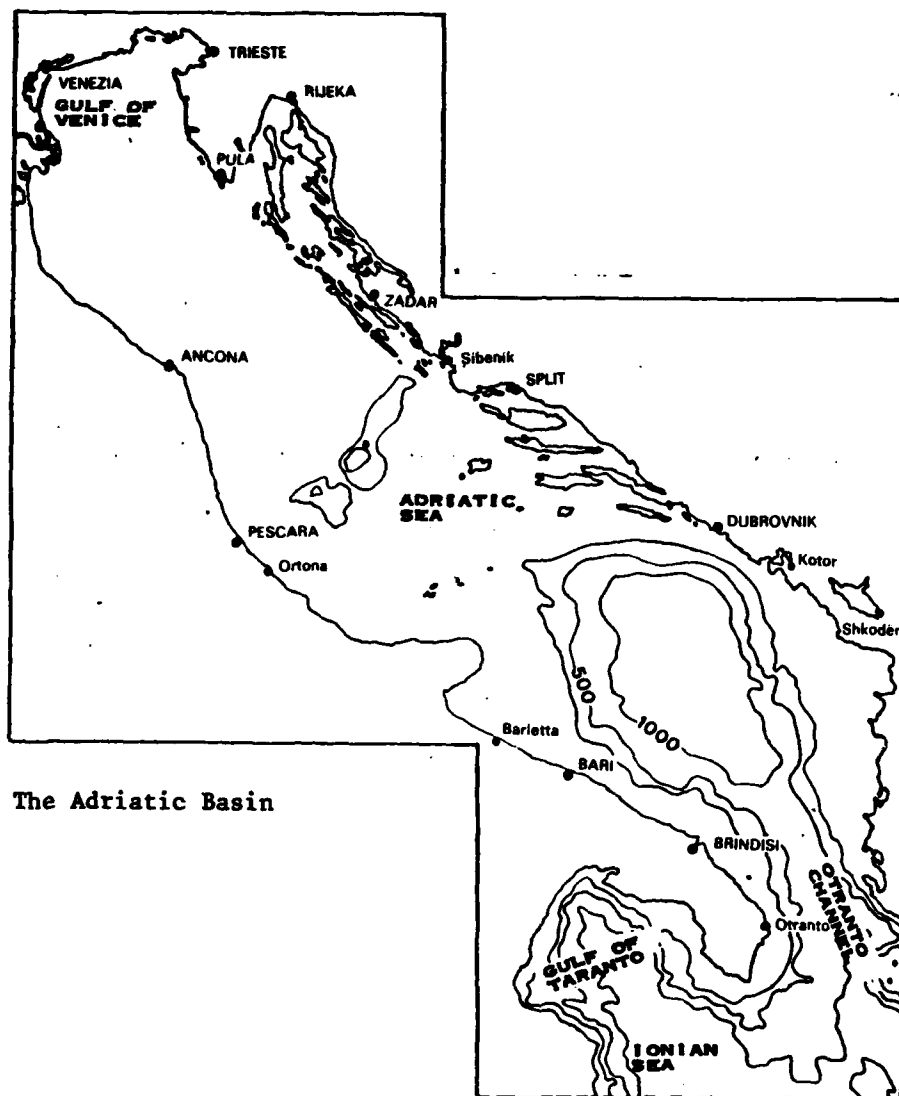
In addition to these purely naval components, the possibility of conducting mine warfare, the land defense consisting of coastal batteries, the use of civil defense in the anti-landing operations, and finally, the use of the latter in limited support operations and coastal guerilla warfare. In this regard, in fact, periodically numerous civilian ships and boats are inspected and inventoried, which are capable in case of need of being armed with light and conventional weapons to operate in fixed channels and passages which are known only to those who live in these areas.



Five of the 7 units which constitute the Yugoslav submarine force. From the left: USKOK, JUNAK, HEROJ of the HEROJ Class; NERETVA and SUTJESKA of the SUTJESKA Class.

THE NAVAL UNITS

After having given a fast summary of the operational doctrine of the Yugoslav Navy in the context of the armed forces, we will address the more modern equipment of the naval units. As we have said, the Yugoslav Navy has received from the USSR after an umpteenth stabilization of diplomatic relations a certain number of units. Beginning in 1966 15 fast attack torpedo craft of the SHERSEN Class, 10 fast attack missile craft of the OSMA I Class have been added to the Yugoslav Navy; the latter have been the backbone of the fleet for years,



The Adriatic Basin

As a matter of fact, in this period, in addition to the entry into service of the new units, the elimination of five old units still in service (two ex-Italian destroyers and three frigates) without any provision being made for replacement. Only the old SPLIT remains in service (which however never has had a particularly high level of efficiency), essentially for reasons of prestige; the decisions made are symptomatic of the new orientation adopted by the Navy. In addition, the shipyard industry, which actually has always maintained a certain level of activity and of importance (consider the construction of the two SUTJESKA Class submarines) was expanded and very soon the construction of the new national project was initiated including 7 inshore minesweepers (between 1967 and 1968), 12 coastal patrol craft, and the main component of the program, 3 new HEROJ Class submarines (equipped however with electronics and armament acquired from the Soviet Union). The program for the construction of 100 80-ton motor torpedo boats in 1964 was terminated after the production of a little more than 20 units. Finally, from 1974 the third naval program was developed which is still in the process of realization, which is again based on national construction.

THE UNITS OF THE YUGOSLAV NAVY

FRIGATES

- 2 SPLIT Class, 2,030 tons, ex-Soviet KONI Class, acquired from 1980, with surface-to-surface missiles.

PATROL UNITS

- 2 MORNAR Class, one built between 1957 and 1958, the other between 1964 and 1965, modernized between 1970 and 1973, 430 tons.
- 1 UDARNIK Class, French construction, between 1953 and 1955, 400 tons.

LIGHT MISSILE UNITS

- 6 RADE KONCAR Class, built between 1974 and 1979, domestic construction, 240 tons, armed with STYX SSN-2 missiles.
- 10 MIRCE ACEV Class, ex-Soviet OSA I Class, built between 1959 and 1963 and acquired from 1966, armed with STYX SSN-2, 210 tons,

TORPEDO ATTACK CRAFT

- 15 BOKOVAK Class, ex-Soviet SHERSHEN Class, built between 1965 and 1971, acquired from 1966, 160 tons.

SUBMARINES:

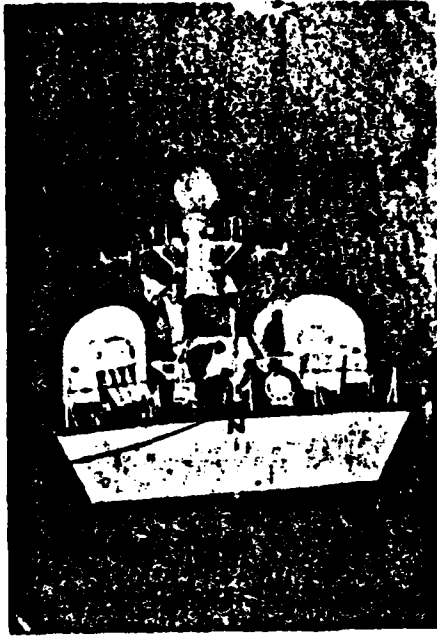
- 2 SAVA Class, national design and construction, with Russian electronics and armament, built between 1975 and 1981, 870/964 tons.
- 3 HEROJ Class, national design and construction, built between 1965 and 1970, 954/1,070 tons.
- 2 SUTJESKA Class, first submarines designed and built in Yugoslavia, built between 1957 and 1962, 820/945 tons, used only for training.

There are also 21 patrol craft between 120 and 202 tons, 4 mine-hunters, 12 inshore minesweepers and 29 river minesweepers, some units for logistics uses, a survey ship, a salvage ship and two training ships, GALEB (ex-Italian RAMB III) and JADRAN (ex-MARCO POLO), used for sail training of cadets of the naval academy are in service.

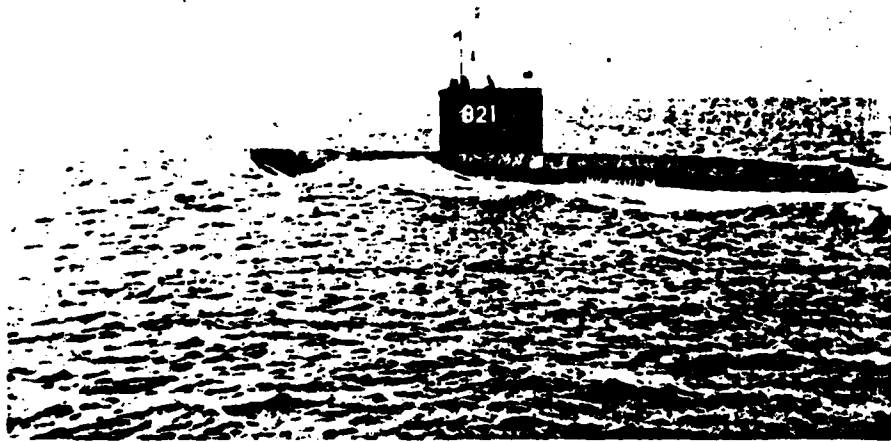
The first units laid down were fast attack missile craft, which were ^{/42} initially scheduled to carry two rapid-fire guns and two EXOCET missiles. At this time, only six units have been put into service, and the completion of the other four units is scheduled. In addition to the fast attack missile class, the first of which was named RADE KONCAR, 5 river minesweepers and 21 modern LCA built entirely of plastic and glass fiber were built. Coincidentally, from 1975 two new submarines ^{/43} SAVA and DRAVA (currently in service, another two or three are building), and, in 1980, a 2,030-ton frigate was acquired from the Soviet Union. The ship, which belongs to the KONI Class, was intended to replace the old SPLIT, whose name it assumed. Thereafter a sistership of this class was acquired, which went into service at the beginning of this year with the ^{/45} name KOPER. These are modern ships with conventional and missile armament (one launcher for SAN-4 surface-to-surface missiles) and sufficiently sophisticated electronics equipment. It is probable that another unit of this class will be entered into service in the near future.

We will now take a look at all of the forces currently in service.

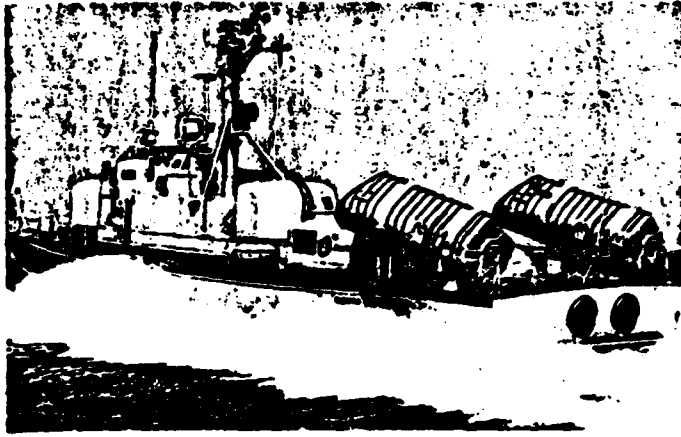
The major units, as we have shown, are the two new SPLIT frigates, together with the 5 fast attack missile craft of national design of 240 tons, the RADE KONCAR Class and the 10 OSA I MIRCE ACEV Class acquired from the USSR, constitute the main operational nucleus of surface ships for anti-ship and ASW operations.



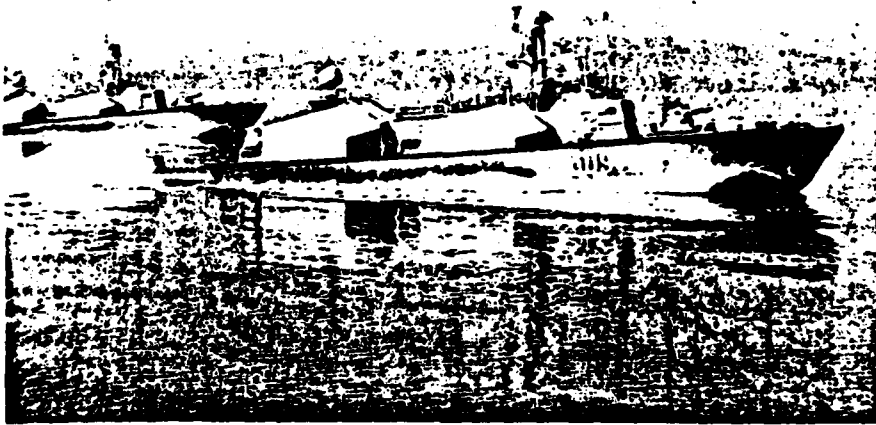
MIRCE ACEV Class unit concealed in a cave.



Submarine HEROJ in operation.



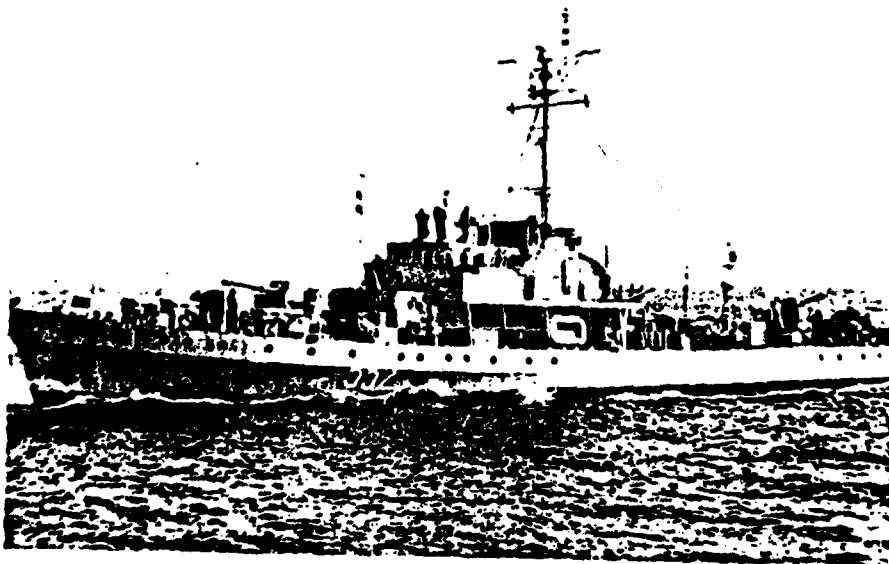
RADE KONCAR Class unit in operation. The launchers are noted, which although adapted to the STYX missiles retain the form of those for the EXOCET missiles which were originally scheduled.



Societ OSA I MIRCE ACEV fast attack missile craft in operation.



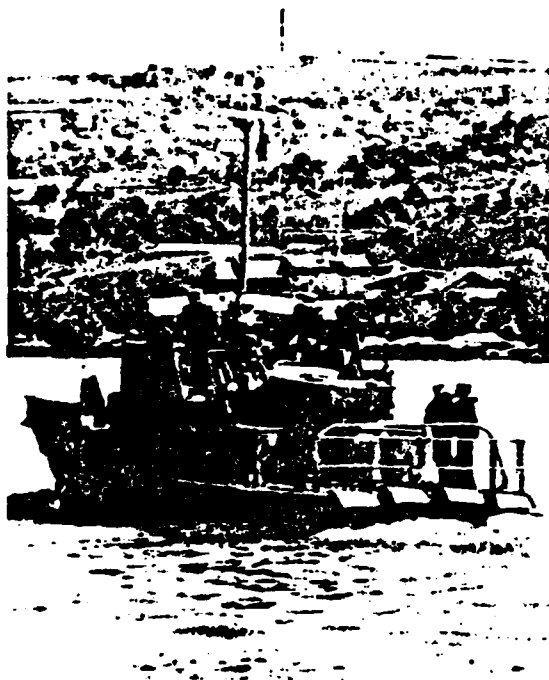
SPLIT CLASS Missile frigate KOPER in port.



Patrol Craft BORAC of the MORNAR Class.

The second important force is the submarine force; this consists /45
of the two SAVA Class submarines of new construction, which are capable of operating at depths below 300 meters and of the three HEROJ Class submarines, which although modest in appearance, provide a good functional and operational performance. Both the SAVA and the HEROJ units can be used both for anti-ship and ASW operations. The two SUTJESKA Class submarines, which are now quite old, are retained in service only for training purposes.

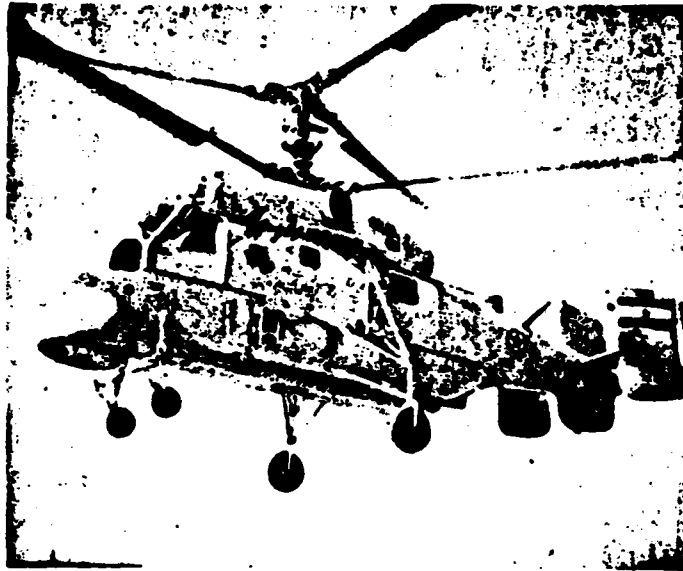
Of the lighter units there are two MORNAR Class patrol craft of 430 tons and one UDARNIK Class patrol craft of 400 tons, but these are ships which were built in the 1950's and 1960's and they have had radical modernizations performed. Of the motor torpedo attack craft there are 15 Soviet SHERSHEN Class acquired in several lots between 1965 and 1971.



River minesweeper (probably NESTIN Class)

21 patrol craft followed, of which only 11 BRESICE (designated as /45
coastal patrol craft) can be regarded as being in service. The component intended for mine warfare is sufficiently developed; there are 4 minehunters 11 inshore minesweepers and 29 river minesweepers, five of which are new construction are in service and an increase of such units is projected. Because of the special nature of the Yugoslav coast, two amphibious units are regarded as being present of 2,980 tons (under construction; there are two fiber-glass LCA and another twenty which are of an antiquated type.

It should be noted that all of these ships are equipped to lay /46
mines. The training ship GALEB (5,182 tons) of the Yugoslav Naval Academy, an ex banana boat and Italian auxiliary cruiser RAMB III, is also equipped for minelaying.



HORMONE Type helicopter used for ASW

/46

Then there is the aviation component, which is primarily used for ASW, which consists of a division of helicopters acquired from the USSR in 1974 of the KAMOV 25 type and of the MIL 8 and MIL 24 types. The helicopters and the naval units can be supported by an aviation regiment in three squadrons for a total of at least 50 aircraft, fighters and fighter-bombers.

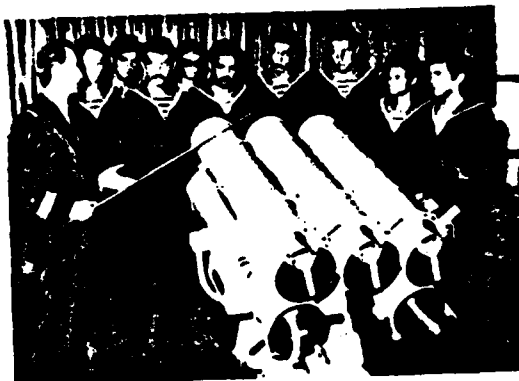
THE WEAPONS AND THE PERSONNEL

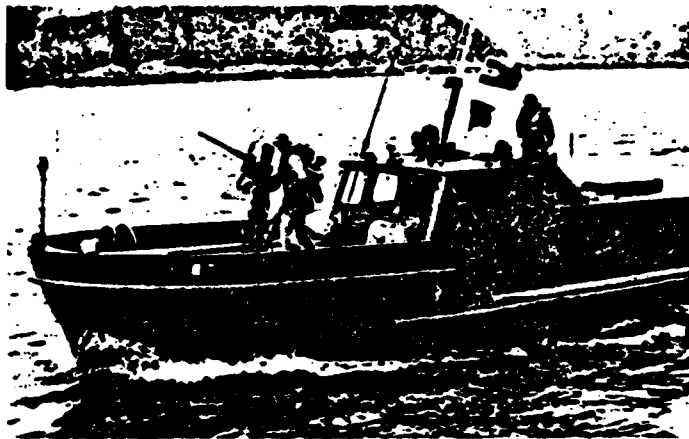
The qualitative level of the materiel and of the armaments remains at the Soviet standard, good, but not exceptionally sophisticated, at least insofar as such equipment is concerned which is sold by the USSR to other countries. We can certainly note a positive point in the RADE KONCAR Class fast attack missile craft, which have a performance similar to that of the OSA Class.

/47

The missile component includes the SAN-4 carried on the SPLIT Class, the SSN 2 STYX carried on the OSA Class and on the RADE KONCAR Class, which are equipped with this missile instead of the scheduled EXOCET; all of these missiles as can be noted are known, proven, and have been in service for some time.

ASW weapons training at the Split training center. The students are in front of a Soviet MBU 1800 ASW mortar used for training purposes.





River patrol craft.

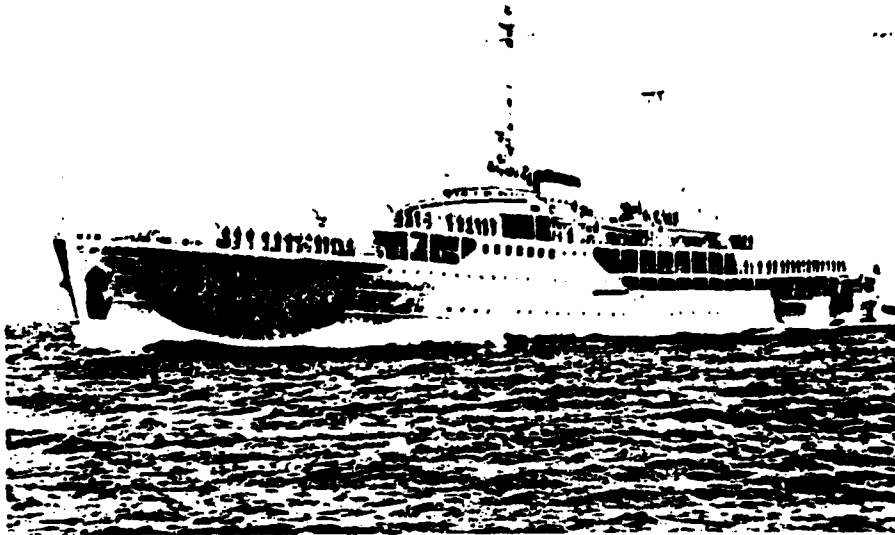
Insofar as the anti-submarine armament is concerned, all such ^{/47} weapons are of Soviet construction, including the MBU 1800 ASW rocket, the ASW torpedoes carried on the submarines. However, the range of equipment for ASW detection and hunting appears to be rather deficient, and the use of the helicopter component compensates to an extent for the deficiencies of this equipment.

However, the mine warfare equipment appears to be of a good quality, both in the area of mine detection and in regard to the mines themselves.

The training level of the crews and the maintenance level of the ships is excellent by any standards.



Anti-sabotage and antilanding craft.



Training ship GALEB.

CONCLUSIONS

We can certainly say that the Ratna Mornarica (Yugoslav Navy) is navy of not very large size, but that it is sufficiently modern and above all is well suited to its tasks, is of good caliber, and is adequate for the needs of the country and for the nature of the theaters in which it would be operating. This level of quality will certainly improve with the entry into service, which is scheduled for the near future, of the surface units (the 6 RADE KONCAR units) and the submarines (2 or 3 SAVA Class).

If it is considered that the Ratna Mornarica was born only some 40 years ago and if the economic and political problems are considered which Yugoslavia has had to overcome in this period, it cannot be denied that the results which have been achieved are satisfactory.

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