THE MILITARY PRESENCE OF THE RIPARIAN COUNTRIES

by

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1. The Frame of Reference

It almost goes without saying that the Mediterranean is an area abounding in situations of potential instability, latent crises and endemic conflicts. Just a quick survey of the area and an extremely schematic political analysis of the situation will in fact suffice to confirm this observation.

Yugoslavia is faced not only with a difficult economic conjuncture but also with the thorny question of Kosovo demands for greater autonomy, a problem which involves more than just ethnic minorities and greater political representation.

Albania, locked in virtual international isolation, will soon have to deal with the delicate problems posed by the post-Hoxa period. The new regime may gradually adopt a different foreign policy. But in any case, a factor which will undoubtedly affect future Albanian international choices is the need to restore credibility to the country's armed forces, currently at a low level of operational readiness(1). If Albania reopens its doors to the Soviet Union (Tirana's major arms supplier until the 1958 schism) and eventually restores its former political and military ties with the leader of the Communist bloc, this would have serious repercussions not only on the Balkan region but on the entire Mediterranean area.

In the Aegean, the disputes between Greece and Turkey over Cyprus, division and control of air space, the limits of their respective territorial waters, sovereignty over the continental shelf and rights to exploit the seabed are still smoldering. The two countries' internal situations do not seem to make the search for agreements and complete normalization of relations any easier. In the wake of Papandreu's electoral victory, Greece has adopted a more explicitly nationalistic attitude towards the problem of relations with Ankara, rekindling old controversies and setting in motion mechanisms of confrontation which may lead to a new crisis. Turkey, on the other hand, must deal not only with the problems posed by a difficult economic situation but also with the need to establish a domestic political order which would guarantee, with the reinstatement of democracy, the country's governability.

The Middle East represents the most difficult political and military knot to untie. Elements of instability are present throughout the region and have their origins in a number of different factors and circumstances; the repercussions of Israel's foreign and military policy and the unresolved Palestinian question; the unstable domestic situation of many countries; the two superpowers' interests in the area, the role they play in affecting the outcome of the recurring crises, and their attempts to arrive at negotiated solutions to the crises; inter-Arab rivalry and the repercussions of events in the Persian Gulf.

In the Maghreb, the problem of the ex-Spanish Sahara remains open. The Polisario Front, supported by Algeria, continues its guerrilla activities while the plan for self-determination of the Saharoui people eleaborated by the Committee of Seven of the Organization of African Unity seems to have failed in its attempt to promote a political solution to the crisis.

Finally, the question of sovereignty over the Strait of Gibraltar, which opposes two NATO members, Spain and Great Britain, has still not been resolved.

What emerges from the above frame of reference is that the Mediterranean is an area divided into a number of different "tension zones". This fact makes it unrealistic, if not impossible, to consider the area as a single entity to which a common parameter of political and strategic analysis can be applied. The tensions in the various zones derive, in fact, from problems which are very diverse in terms of historical and ethnic roots, political and economic interests, and security needs.

This fragmentation into a number of distinct "tension zones" does not, however, exclude the possibility, should the tension in one zone break out into open conflict, that other zones of the Mediterranean or countries belonging to another region may be affected or that the two superpowers and East-West relations may be directly or indirectly involved.

Also of significance is the fact that the tension zones are not located along the borders between NATO and Warsaw Pact countries and that the situations of latent crises cannot be attributed to elements of confrontation between the two alliances in southern Europe. Instead, they exist either within one of the alliances (the Greek-Turkish dispute; Romania's often eccentric foreign policy with respect to the line set by the Soviet Union) or outside NATO's area of responsibility, in zones not covered by the Treaty.

Finally, the trend in the Mediterranean is likely to be toward a multiplication of the tensions zones (or toward an accentuation of the existing crises) as the result of two concomitant developments: the integral application of the Law of the Sea, with the institution of "exclusive economic zones" (EEZs) up to 200 miles off the shores of the coastal countries and the extension of territorial waters from 6 to 12 miles, on the one hand, and, on the other, progress in mining technology which will make it possible and economically feasible to exploit seabed resources.

The problem in the Mediterranean appears particularly complex. Given the Mediterranean's geography, the institution of exclusive economic zones will inevitably lead to a series of superimpositions and hence to motives of controversy. In fact, it is impossible to draw a line 200 miles from the coast of any Mediterranean country without it cutting across and overlapping the corresponding line traced from

the coast of another country (in some cases island territories or part of the continental territory of another country may even be included). Even the extension of territorial waters does not appear of easy application. The extension of the territorial waters of the Greek islands from six to twelve miles would increase Athen's sovereignty over the Aegean Sea from 35% to 64%; would reduce the extent of international waters to 25%; and would virtually deprive the Turkish ports of the Aegean of direct outlets to international waters.(2)

Progress in mining technology, which will make it possible to intensify exploration for and development of underwater resources -- as soon as technology has reached the point where it is economically feasible to carry out exploration and extraction activities at depths of up to 1000 meters, the total exploitable area will pass from the current 15% to 22%(3) -- will just as inevitably tend to make it more difficult for the countries whose EEZs overlap to reach agreements on their exploitation.

Not only are the politico-economic controversies linked with the determination of sovereignty rights likely to increase in the future -- the disputes between Greece and Turkey regarding the limits of sovereignty over the Aegean continental shelf and between Malta and Libya over the shelf in the central Mediterranean are still unresolved -- but so are the contrasts regarding the rights of free passage and freedom of navigation.

This eventuality as a source of crises and conflicts should not be underestimated. A look at history, even recent history, should make this clear. In 1967, Egypt closed the Strait of Tiran, making it impossible for ships directed toward Israel to enter the Gulf of Aqaba. Twenty-four hours later Israel declared war. The threatened closure of the Strait of Hormuz in 1979 because of the Iran-Iraq conflict was the principal motive behind the American decision to send a fleet to the Arabian Sea. The same decision was taken by two European countries, France and Great Britain. In August 1981, F-14 fighters of the U.S. Sixth Fleet carrying out maneuvers in the central Mediterranean clashed with Libyan SU-22 planes in the sky above the Gulf of Sidra, in a zone 60 miles from the coast that Tripoli had unilaterally included in its territorial waters. The shooting down of the two Libyan planes that attacked the Tomcats of the aircraft carrier Nimitz was a clear indication of the importance the United States attributes to the problem of freedom of navigation and of its resolve not to recognize or submit to other limits beyond those established by the international laws currently in force.

On the other hand, the definition of "innocent passage" and the distinction between warships and merchant ships tend to get blurred in times of crises: when the motives of having a naval presence to "show the flag" and to signal interest in the course of events or in order to exert political pressure are pre-eminent; or when merchant ships are used as the principal means of transporting arms and supplies to one of the warring parties.

In the Mediterranean, naval forces have often been used by both the superpowers and the coastal countries. They have been employed as a foreign policy instrument to send signals or warnings. For instance: in 1946, the battleship Missouri, flanked by the light cruiser Providence and the destroyer Power, pay a visit at the port of Istanbul; in October 1967, Soviet ships visited Port Said; in October 1973, three aircraft carrier task groups of the U.S. Sixth Fleet were present to the south of Crete. Naval forces have also been used as instruments of war. For example: the landing of the U.S. Marines in Lebanon in 1958; the sinking of the Israeli destroyer Eilat by fast attack craft during the 1967 conflict; the clashes between the Israeli and Egyptian navies during the 1973 conflict; the bombing of the Lebanese coast and Beirut by Tel Aviv's naval units during the summer 1982 crisis. And also as the principal means of moving men and material: naval units were used to send to Syria the Moroccan contingent which fought on the Golan front in October 1973; during the Arab-Israeli war of Yom Kippur, about 85% of Soviet military supplies to the Arab countries and over 70% of U.S. supplies to Israel were carried by ship. Air forces are used for much the same purposes, except as a foreign policy instrument. Their lack of suitability as an instrument of exerting pressure derives from the fact that, although they can be used selectively, they cannot be graduated and cannot constitute a fixed presence.

The prospect of air and naval forces actually being used has taken on new dimensions in recent years, especially in the Mediterranean, owing to the development of new technologies.

Radar planes (such as the AWACS or the E-2C Hawkeye) can supply precise information on the movements of fleets and on the consistency of an eventual air threat; they can operate as command and control centers; they can direct the attacks of interceptors and fighter-bombers.

The new generations of fighter planes are endowed with high cruising and attack speeds; they are equipped with advanced navigation and firing systems, have a long radius of action and an elevated war load capacity; they can be armed with sophisticated weapons ("smart" bombs, air-to-surface missiles with electro-optical or radar terminal guidance or "fire and forget" capabilities) and fitted with electronic warfare systems.

Modern warships are equipped with anti-aircraft and anti-missile defense systems which are radar-controlled and completely automatic in their loading and firing operations; with offensive systems consisting in surface-to-surface missiles; and with sophisticated ASW systems (variable depth sonars, anti-submarine missiles and ASW helicopters).

The biggest revolution has been in the field of missiles. Anti-ship (air-to-surface and surface-to-surface) and anti-aircraft missiles are today the most lethal weapons of air-sea warfare. Because the anti-ship missiles can be mounted even on low displacement ships such as corvettes, fast patrol

vessels, and hydrofoils, or can be deployed on ground or mobile bases, they have become the principal weapon of all the maritime forces that operate in the Mediterranean.

Paradoxically, however, it is precisely these technological developments which place certain limits on the use of naval forces in the Mediterranean because of the sea's particular geographic conformation.

The Mediterranean is a relatively large sea (2,511,000 sq.km.), enclosed by the Turkish Straits to the east and the Strait of Gibraltar to the west, and divided into compartments by a number of choke points: the Sicilian Channel, which practically divides the sea into two distinct basins; the Otranto Channel; the entrances to the Aegean Sea to the east and west of the Island of Crete; the passages between the more than 3000 islands of this sea. The east-west dimensions of the sea are appreciable, while the north-south dimensions are very modest. The length of the Mediterranean from Gibraltar to the Turkish coast is just over 4000 km. The maximum width, from the Gulf of Trieste to the African coast of Sidra is only about 1800 km. Other distances vary from 1 to 3 km. at the Turkish straits to 13 km. at the Strait of Gibraltar; from 145 km. at the Sicilian Channel to some 450 km. from Cape Passero to Benghazi; from just over 300 km. from Crete to Tobruk to about 550 km. from the Turkish to the Egyptian coast; from some 250 km. from Cape Teulada in Sardinia to Annaba in Algeria to over 600 km. from Toulon to the Algerian coast.

This means that any point on the Mediterranean -- and in some cases even more or less vast parts of the territory of the coastal countries -- can be covered, given their radius of action, by the modern land-based fighter-bombers and, given their high operational speeds (from 360 to 450 knots), in a relatively short time. The navigation systems they are equipped with permit accurate arrival on their targets, even if mobile, and the missiles they can be armed with assure a high kill probability.

Moreover, the choke points in the Mediterranean constitute obligatory points of passage and can easily be controlled, made difficult to transit through, or completely blocked with the use of attack submarines, fast missile units, or mines. Even the Sicilian Channel, notwithstanding its width, has a number of relatively shallow points because of the wide extension of the European and African continental shelves which limit full freedom of transit and the maneuvers of submarines.

In addition, the high thermal gradient, especially in the summer season, the elevated salinity of the sea,(5) the uneven conformation of the seabed, and the heavy traffic (daily, more than 3000 ships of over 1000 tons and about 5000 other boats of various shapes and sizes), make locating submarines, and hence submarine warfare, especially difficult.

Finally, if mobile land-based anti-ship missiles are deployed near the zones with the greatest amount of traffic or through which transit is obligatory, this would represent a further significant threat which is certain to have an impact

on the operations of naval forces (particularly amphibious operations) and on maritime traffic. In the near future mobile anti-ship missiles which can be launched from the ground and with a range much superior to the current 100-200 km. will be available on the international arms market at relatively low prices. Their proliferation in the military arsenals of the Mediterranean countries would further limit the use of naval forces near the coasts and would further reduce operational maritime space in the Mediterranean.

In conclusion, it can be said that the Mediterranean has today become a much smaller sea in geostrategic terms. The vulnerability of ships has increased, especially if they do not have anti-missile defenses or if they are not operating under an anti-air umbrella. The role of land-based attack air forces has grown. The threat to maritime traffic has become more penetrating and diversified, especially near the choke points. The use of naval forces as a foreign policy instrument has become more difficult and risky. All this against the backdrop of a situation already riddled with instability and unresolved political disputes and in which there is the prospect of increased conflict due to application of the Law of the Sea treaty.

A major factor determining this geostrategic shrinking of the Mediterranean and the deep political and military transformations in the area is the qualitative and quantitative build-up of the air and naval forces of the coastal countries.

This build-up of forces in the Mediterranean raises a number of critical questions.

To what extent will this build-up affect each country's security perceptions and will it lead to a further spiralling of the race for more and increasingly sophisticated arms in the Mediterranean area?

To what degree might the build-up itself become an element which generates crises, encouraging the use of military force to resolve eventual disputes?

To what extent might it constitute a real threat to maritime traffic and naval operations and might it become the means with which some countries attempt to unilaterally impose their sovereignty on certain zones of the sea, limiting freedom of navigation?

To what degree might it affect the freedom of action of the superpowers' air and naval forces in the Mediterranean and to what extent might it represent an obstacle to the use of military power as an instrument of pressure and intimidation?(6)

To what degree and in what way will the build-up influence the search for agreements or measures to control the proliferation of arms in the Mediterranean area?

2. A summary description of the current situation

From a summary analysis of the developments in the air and naval forces of the coastal countries from 1970 to 1981, a number of remarks and considerations can be put forward.

- The air and naval forces of the Mediterranean countries (especially those of the Arab countries of North Africa and the Middle East) have been significantly enhanced both in numbers and in quality. Not only have arms and equipment been purchased in greater quantities; the purchases have also led to greater diversification of capabilities through the procurement of new high performance weapons systems with advanced characteristics.

- The air forces have normally benefitted more than the naval forces. Today, all the Mediterranean countries, with the exception of Albania (100), Morocco (75), Spain (193), Tunisia (11), have air forces with more than 300 combat planes (thus excluding transport and training aircraft and helicopters). Except in a few cases (Albania, Syria, Spain), the total number of fighter-bomber squadrons exceeds that of the interceptor squadrons which means that attack capability has been substantially privileged with respect to defense capability. This may be due in part to the fact that the countries concerned have adopted an air doctrine which concentrates on superiority by means of counter-aviation rather than through air combat; in part to the awareness of the importance of the land front for the country's defense and hence the need to give

direct support to the ground forces; in part for political reasons since offensive air forces are one of the most visible "status symbols" of military strength. Finally, for the Arab countries (but not only for them) we must not forget how the use of Israeli air forces during the 1967 war influenced their arms procurement programmes.

The "status symbol" motive and the fact that it is best served by the air forces because of their high technological content has also played a role in the decision to give priority to the development of the air force rather than the navy. An equally important factor which has determined such choices is the repercussions of the so-called "mirror effect", by which the arms' purchases of one country tend to be matched by neighbouring countries and, more generally, by all the countries in the region.

- The build-up of the air forces in terms of quality has been striking in many respects. The air forces of the Mediterranean countries now deploy medium bombers (not only the old Egyptian TU-16 Badgers, but also the more modern Libyan TU-22 Blinders) and a whole series of new generation combat aircraft: F-15, F-16 and Kfir C-2 (Israel); F-16 (Egypt); MiG-23/27 (Algeria, Libya, Syria); MiG-25 (Libya, Syria); SU-20 (Algeria, Syria); Mirage F-1 (France, Greece, Libya, Morocco, Spain). In addition: the older but still valid F-4 (Egypt, Greece, Israel, Turkey); F-104 (Greece, Italy, Turkey); Mirage III/V (Egypt, France, Israel, Libya, Spain).

The weapons systems include air-to-air missiles: Soviet AA-2 Atolls, U.S. Sidewinders and Sparrows, French Falcons and R-550 Magics, Israeli Shafirs; and air-to-surface missiles: Soviet AS-1 Kennels and AS-5 Kelts, French AS-37 Martels and AM-39 Exocets, U.S. Bullpups, Mavericks and Harpoons.

Of course the sophistication of the means is not always matched by effective operational capacity. In many countries the weapons systems cannot be used to their full potential because the training of crews and pilots is insufficient. Inadequate technical support and maintenance lower the efficiency of the systems, while lack of sufficient logistical support means that protracted war operations could not be sustained.

But in any case, the aerial threat in the Mediterranean has definitely grown in terms of greater coverage, high intervention speed, more diffused presence of modern weapons systems endowed with enhanced firing accuracy and high destruction potential.

- For the naval forces, the situation can be summarized as follows:

a) Greater diffusion of submarines. Greece, Yugoslavia, Libya, Spain and Turkey have all increased the number of their submarines. Libya, which in 1970 had no submarines, now has four of the Foxtrot class supplied by the Soviet Union.(7) Algeria, Morocco, Tunisia and Syria still do not have any submarines. Submarines continue to be a typical component only of the European navies, and of Israelis, Egyptian and Lybian navies. But the situation might change if the submarine together with missile-armed ships comes to be considered a more

suitable means for enforcing a "sea denial" strategy, for instituting naval blockades or for threatening in a more invisible, and hence more insidious form, transit in those zones of the sea in which a country wants to impose its sovereignty. It is difficult to say whether the sinking of the General Belgrano cruiser in the recent war for the Falkland Islands and the role played by the British nuclear submarines in confining the Argentine fleet to its ports will encourage the Mediterranean countries that still are not equipped with submarines to reassess their importance. However, for many of them, the real defense needs to justify such a procurement programme would be lacking.

b) Increase in the number of ex-novo procurement of frigates. The multi-purpose frigate -- a ship equipped with diverse and highly sophisticated weaponry and in the case of the new generations, capable of carrying ASW helicopters -- is becoming a more and more typical component of the navies of all the Mediterranean countries. Over the past ten years, frigates have been purchased by the Algerian Navy (Soviet Koni-class frigates), the Syrian Navy (Soviet Petya-class frigates), the Tunisian Navy (U.S. Savage-class frigates) and the Moroccan Navy (Spanish Descubierta-class frigates). Other navies have purchased new generation frigates with enhanced anti-sub, anti-air and anti-ship capabilities (Italy now has Lupo and Maestrale-class frigates, Spain Descubierta-class, Greece Kortenaer-class and Turkey Berk-class frigates).

c) A noteworthy increase in light missile units (corvettes, fast attack craft and hydrofoils). This is the most evident and strategically significant development in the area.

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Almost all the Mediterranean countries are today equipped with fast attack craft (FAC) armed with missiles. For many, almost all the Arab countries and Israel, they constitute the principal offensive component of their naval forces. The types of units, divided according to class and country are the following:

- Corvettes: Nanuchka-class armed with SS-N-9 missiles (Algeria and Libya); Wadi M'ragh and Dat Assawari-class armed with Otomat missiles (Libya); Aliya-class armed with Gabriel missiles (Israel).

- Fast attack craft: OSA-I-class and OSA-II-class armed with SS-N-2 Styx missiles (Algeria, Yugoslavia, Libya, Egypt and Syria); Hoku-class armed with SS-N-2 missiles (Albania); La-Combattante-II and La-Combattante-III-class armed with Otomat, Exocet and Penguin missiles (France, Greece, Libya and Tunisia); Reshef and Saar-class armed with Harpoon and Gabriel missiles (Israel); Lazaga-class armed with Exocet missiles (Morocco); October 6th and Ramadan-class armed with Otomat missiles (Egypt); Dogan and Kartal-class armed with Harpoon and Penguin missiles (Turkey).

- Hydrofoils: Sparviero-class armed with Otomat missiles (Italy).

These units are relatively inexpensive and have a particularly favourable cost-benefit ratio in terms of capacity

to undertake various missions. The FAC are very fast -- with maximum speeds of about 35 knots on the average; faster, up to 50 knots, for the hydrofoils -- extremely maneuverable (but suffer in rough sea conditions), and are armed with anti-ship missiles and at least one small or medium-calibre cannon for anti-air and anti-helicopter defense. They are therefore in a position to undertake various tasks:- patrol and control (against the infiltration of saboteurs or landing attempts by commando units); surveillance of the EEZs, interruption or harassment of commercial maritime traffic; attacks on naval formations with "wolf pack", ambush or hit-and-run tactics.

The anti-ship missiles with which they are equipped and their high speeds make them a dangerous threat even for very large and better armed warships.

However, the FAC appear particularly vulnerable to air attacks and will probably operate in zones not too far from the coast, even if their range of action would make it possible for them to cover vaster areas,(8) and in relatively calm sea conditions.

The FAC therefore appear particularly suited to operations around the straits, in the sea areas where there are a number of obligatory passageways, in the gulfs, around the choke points of the Mediterranean, and to patrol the EEZs.

d) Another development of the naval forces which deserves mention is the growth of the amphibious capabilities of the

Libyan Navy. Libya has ordered nine C-107-class LCTs (landing craft, tank) from Turkey and has already received two. The nine LCTs together with the two 2800-ton LSTs (landing ship, tank), the three Polish- made, Polnochny-class LSMs (landing ship, medium) and the 3100-ton roll-on/off ship will bring the Libyan landing forces to a level,at least in terms of the means available, superior to that of the amphibious forces of the other North African countries (Algeria, Morocco and Tunisia) and inferior only to Egypt's amphibious forces.

One last consideration which emerges from an analysis of the situation in the Mediterranean concerns the roles played by the two superpowers and by the European countries as suppliers of arms. The United States supplies the NATO countries of the Mediterranean, Egypt (after Cairo broke off relations with Moscow), Morocco and Tunisia. The Soviet Union supplies Yugoslavia, Egypt (until 1974), Algeria, Libya and Syria with arms.

In recent years, political considerations -- the need to avoid exclusive dependence on one of the superpowers for the country's military needs and thus limit the superpowers' possibilities of using this dependence to exert diplomatic pressure on the country in times of crisis -- motivated many countries to diversify their sources of weapons, even though they know that this decision would involve difficult technical, logistic and training problems.

The European countries were the only alternative, not only because they are in a position to supply arms and equip-

ment at a technological level comparable (in some cases superior) to that of U.S. and Soviet products, but also because the supplies were not dependent on political concessions in return (for example,access to air or naval infrastructures).

With regards, once again, only to the air and naval forces: France has sold arms systems to Egypt, Libya, Morocco and Tunisia; Great Britain to Egypt, Algeria,(9) Lybia, Morocco and Tunisia; Italy to Libya, Morocco, Egypt and Tunisia; while Turkey has recently begun to build naval units for Libya.

Even this very sketchy picture of the air and naval forces of the countries bordering on the Mediterranean makes it evident that the concentration of military capability in the Mediterranean basin is indeed impressive. The picture becomes even more complex and alarming if we also consider the presence of U.S. and Soviet air and naval forces and the evident trend toward further militarization which emerges from an examination of the Mediterranean countries' plans to build up their armed forces, the United States' military aid programmes and the Soviet Union's new commitments to supply arms.

3. The implications of the new situation

An attempt to single out the implications of the new situation amounts in substance to an attempt to answer the questions posed in the first section of this paper.

The security choices of a country are never the result of consideration of just one parameter. Other factors besides defense needs (that is, besides an assessment of current and impending threats) often come into play. These may include the political role the country aspires to play in the regional context; the leadership ambitions that a strong military force may nurture; the international ties with the politics of one or the other superpower (but only insofar as a substantial convergence of interests exists); the means to dedicate a considerable percentage of the state budget to military spending (characteristic of the oil-exporting countries); the intention to develop the arms industry as a means of reducing dependence on other nations and as part of a broader scheme for the industrialization of the country, counting on the transfer of technology and know-how from the military to the civilian sector.

The primary factor motivating a build-up of military capabilities remains, however, the perceived threat to the country's security which, in turn, is a function of the elements of regional instability and of the persistance of problems and constrasts with neighboring countries. It was thus that the Arab-Israeli conflict decisively spurred the enormous growth of military arsenals in the Middle East, just as the ex-Spanish Sahara problem is driving Morocco to build up its armed forces.

Moreover, a build-up of military strength in one country is perceived by neighbouring countries as an increased threat to their own security, setting off that vicious circle of action-reaction typical of the arms race.

For the European countries of the Mediterranean the problem is even more complex. Their defense policy choices are usually a part of the collective decisions taken by NATO in response to the Warsaw Pact's increases in military potential. In the Mediterranean theater, the Warsaw Pact's potential was mainly increased through a build-up of Soviet air and naval forces (the Soviet Mediterranean fleet was increased in numbers and quality; the Soviet Naval Aviation deployed Backfire bombers at its Crimean and south Russian bases) which can now effectively limit the political and military options open to the U.S. and which would represent a real military threat in the event of conflit.

In its evaluation of what is commonly referred to as the "threat from the south", NATO takes into consideration not only the Pact's effective military capabilities, but also the eventuality that some Middle East or North African countries might allow the Soviet military forces to use their air and naval facilities or that they might even join forces with the Soviet Union in the event of an East-West crisis.

Over the last few years, parallel to the transformations in the strategic picture, not only in the Mediterranean but in the entire southwest Asia area, another important change has taken place.

The European countries of the Mediterranean no longer relate their security needs exclusively or principally to the new and heightened threat posed by the Soviet Union.

They instead tend to attribute a more explicitly national connotation to their security needs. Greater attention is being paid to eventual scenarios of conflict outside the East-West context, to which the reciprocal support clauses of the North Atlantic Treaty might not apply, and to the defense of exclusively national political and economic interests. Diffused regional instability, the deterioration of relations between many states, the growing militarization of the Mediterranean area, the prospect of more numerous and sharper contrasts and conflicts over the question of the use and exploitation of the sea seem to weigh more heavily than the old, traditional scenario of conflict between the two blocs.

There are also other reasons for this less "Atlantic", more "national" dimension that the Europeans now tend to attribute to their security problems -- a dimension which affects not only decisions as to the structure of their military forces,(10) but foreign policy choices as well. These include maintenance of the country's capability to intervene in support of certain Third World countries (for example, France in support of the central African countries); the undertaking of new commitments as the result of international treaties (for example, Italy's commitment to guarantee Malta's neutrality); realignment of the country's international relations (for example, Turkey's shift to a policy of greater openness to the Eastern countries and the Arab world).

These developments give the impression that practically all the coastal countries are preparing themselves for a future in which, in the Mediterranean area, international tensions will be generated above all as the result of the difficulties encountered in finding solutions to the problem of "sharing" the sea and its resources, and in which the crises will be mainly south-south or north-south rather than east-west.

The increased militarization of the Mediterranean tends to increase the area's instability; brings with it greater risks of confrontation in the event of crisis; encourages the propensity to use military instruments rather than diplomacy to resolve international controversies; and complicates control and management of crises.

In particular, the build-up of the air and naval forces of even the smallest riparian countries raises a series of problems. In the Mediterranean, the longstanding concept of high seas, to which freedom of navigation, fishing rights, exploration and exploitation of the sea's resources, etc. are closely linked, appears increasingly open to dispute.

There is a very real possibility that for alleged motives of security, navigational safety, or pollution control, limits be placed on freedom of transit in certain zones of the sea.

In the event of an open international conflict or of a domestic crisis which involves the threat of guerrilla movements, security zones might be created in which navigation would be subject to rigid control measures which might include stopping, searching and eventually confiscating ships in

transit. Especially in the case of conflict between two coastal countries, large tracts of the sea might be implicitly considered or explicitly proclaimed war zones, that is, zones which are dangerous for the navigation of all types of ships, even those of non-belligerent countries. For political reasons, naval blockades or limits on transit might be imposed by neighbouring countries in support of one of the warring parties, to discourage or impede the shipment of military aid and supplies.

In addition, there might be situations in which a country decides to impede the information gathering activities of ships and planes off the shores of its coast, even beyond the limits of its territorial waters.(11)

Does this mean that the Mediterranean will eventually become a fragmented sea not only geographically but also militarily and politically? Might it lead to a different formulation not so much of the concept of international waters as of the operations which until now have always been allowed, limiting their nature and/or scope? Might it mean that the use of air and naval forces for political ends, that is, the diplomatic use of naval power, is no longer possible?

From a "technical" point of view, that is, in terms of military capability, the coastal countries are theoretically in a position, though with different degrees of efficacy, to create and control situation of the type described above.

The proliferation of high-tech weapons systems has increased the vulnerability of the surface naval forces and

has caused the virtual disappearance from the Mediterranean of low threat areas, that is, areas in which it would be possible to operate without excessive risks and with few losses.

The recent Anglo-Argentine war over the Falklands has shown the effectiveness of the use of air forces in an anti-ship role and the lethality of modern missile systems. This is an element which is bound to weigh heavily in a closed and limited sea like the Mediterranean, especially if, as in the case of Argentina, the attack planes could operate from a sanctuarized territory, that is, immune to the aerial offensive of the adversary.

However, as in the case of naval forces, we must avoid the tendency to overestimate the significance of the war events in the south Atlantic. Just as it would be mistaken to affirm that the sinking of the English ships was of such great significance as to negate the validity of the use of naval forces, it would be equally erroneous to assign an absolute value to the undeniable effectiveness of the air attacks. The Falklands' war proved once again that aerial forces can at times decisively affect the evolution of a conflict. But in the case in point, the price paid by the Argentine Air Force was particularly high and hardly sustainable in the prospect of a protracted war effort. The vulnerability of attack planes has grown along with that of the surface ships. It is not easy to avoid or counter the threats posed by radar-controlled, completely automatic, rapid-firing cannons and machine-guns and by infra-red or radar-guided surface-to-air and air-to-air missiles.

Thus the use of air power, too, appears more complex than the Anglo-Argentine conflict would lead us to believe if we were to consider only the outcome of counter-aviation and support missions and the losses inflicted on the British naval forces.

The fact that the coastal countries are theoretically capable of military intervention and that the entire Mediterranean has become an area of high risk do not lend credibility to the above questions nor do they lead to an unequivocally affirmative answer.

From the political point of view, it would be difficult to find sufficiently valid motives for creating or imposing situations which would limit freedom of navigation and would consequently be viewed by the other Mediterranean countries and by the superpowers as a threat to their vital interests; a threat, therefore, to which it would be impossible not to respond, especially on the part of the two superpowers, who would certainly not be willing to accept limits to the freedom of maneuver of their fleets

Similar reasoning can be applied to the use of air and naval forces for diplomacy. It would in fact be rash to say that air and naval operations of the type included in what is commonly referred to as "gunboat diplomacy", or what Edward Luttwak has called "naval suasion",(12) are no longer possible.

Let us exclude from our analysis the use of naval forces for foreign policy ends by one of the superpowers to pressure the other.

Even if a country is armed with submarines, missile units and modern attack planes equipped with sophisticated weaponry, this is generally not enough to effectively deter the use of naval force by an adversary unless the country's military capabilities are supported by an adequate early warning and surveillance system and by an effective C^3 system which makes it possible, by means of a constant assessment of advantage and risk, to graduate reaction and control the eventual escalation of the confrontation. But even military power alone is not enough. It must be integrated by an equally credible political instrument capable of exploiting both the eventual weakness of the adversary and eventual international support.

But just because gunboat diplomacy is still possible, does not mean that it has not become much more complex, risky and costly.

The political limits to the use of military force when the risks are high could be stronger than foreseen.

The interests at stake could be perceived by the country under pressure as vital (or might objectively be vital) and therefore more important that those of the country that has chosen to use military force. But this, in turn, might act as an intrinsic dissuasion factor with respect to the latter.

The small countries might not hesitate to confront a more powerful country or use their international ties -- especially their ties with one of the superpowers -- as a further deterrent. This might lead to a failure of those

conditions of sanctuarization of air and naval space which have often facilitated the use of military force.

Situations might be created in which the naval units designed to represent the privileged instruments of "gunboat diplomacy" end up as "hostages" because of their increased vulnerability. This could increase the risks of "escalation", especially if these units are of high real and symbolic value, as is the case for aircraft carriers. A real or presumed threat to such a value could set off a reaction superior to that militarily necessary or politically desirable.

The degree to which the military instrument can be used for political ends (and hence the relative degree of difficulty and risk) depends, of course, on the overall balance of power between the two countries concerned. Apart from the two superpowers, whose real limit lies in the dangers of an involvement which might lead to a direct clash, the disparities in strength among the Mediterranean countries, in relative terms, have been greatly reduced. This means that there has been an increase in the number of countries for whom the use of naval power, either as a military or as a diplomatic tool, is no longer an easy and acceptable foreign policy option.

In conclusion, acquisition of significant military capabilities by the Third World Mediterranean countries implies a redistribution of political and military power that it would be naive to ignore or underestimate. Their "sea denial" power, which already exists and is likely to grow in the future, will have to be taken into account in any crisis which might arise as the result of controversies over the limits of

exclusive economic zones and of jurisdiction over the continental shelves, over the right to freedom of navigation and transit, etc.

Of course, the existence of military potential does not always mean that it is credible or applicable or that the political conditions for its use exist.

Although the use of air and naval forces as an instrument of coercion or pressure has become more difficult and costly, it has still not become impossible.

However, in the Mediterranean the build-up of the air and naval forces of the riparian countries appears to carry with it even wider-ranging implications.

The final question is in fact as previously noted: To what extent will this phenomenon and its development trend affect the prospects for arms control?

The overall problem of arms control in the Mediterranean area has not yet been systematically analyzed.

Ciro Zoppo, one of the few experts who has dealt with the problem in the context of U.S. - U.S.S.R. relations,(13) has singled out two basic categories of eventual arms control measures. The first he calls "prudential arms control", which includes the code of conduct currently in force concerning the two superpowers' ships and/or aircraft when in close contact or when used in shadowing operations, the limits to maneuvers of naval units and military aircraft operating near merchant ships, and all those other measures designed to prevent a conflict generated by errors of evaluation, mistaken perceptions of threat and misunderstandings as to the adver-

sary's intentions. The second category, called "substantial arms control", includes all those measures designed to affect the two superpowers' military presence (size and structure of their fleets) in the Mediterranean and to restrict the supply of arms to the riparian countries.

It is evident, however, that the problem of arms control in the Mediterranean cannot be resolved unless it is faced globally.

If arms control measures -- further tuning of the prudential ones to improve command and control of the naval forces in the event of crisis and effective application of the substantial ones -- were adopted by the two superpowers, this would certainly be of great importance. It could represent that sign of good will necessary to diminish apprehensions and focus the attention of other countries on the problem. But this alone would not be enough. What is necessary is the full participation of all the European and Mediterranean countries. Measures to limit arms supplies to the coastal countries by the superpowers in the event of a crisis would in fact have little effect if the European countries failed to adopt the same policy.

It is beyond the limits and scope of this paper to examine what prudential and substantial arms control measures might today be adopted by the two superpowers; which of these might be effectively applicable to all the Mediterranean countries; if and in what way the measures agreed on by the U.S. and the Soviet Union could eventually be linked with regional agreements; what role the European countries might play; if it would be possible to insert explicit arms control measures in the framework of eventual negotiations on the limits of exclusive economic zones; in what way further

play; if it would be possible to insert explicit arms control measures in the framework of eventual negotiations on the limits of exclusive economic zones; in what way further militarization of the Mediterranean could be limited. But these problems are too important to be ignored.

I would therefore like to put forward a proposal which, modest as it is, could represent a starting point for a process of arms control from which the Mediterranean has so far been excluded.

A Mediterranean country (and why not Italy?) should promote the formation of a small group of "experts" with the task of analyzing the arms situation, examining the prospects for arms control, and advancing a series of proposals. The results of the work of the group should be presented to all the governments of the Mediterranean area to serve as the basis for the elaboration of political hypotheses which would then be the subject of international negotiations.

The trend in all the Mediterranean countries toward a build-up of air and naval forces is sowing the seeds of greater instability and more diffused conflict. If to this is added the proliferation of nuclear arms, any further Mediterranean crisis would include the risk of a nuclear holocaust.

NOTES

1) The low level of efficiency seems to be characteristic of all three branches of the armed forces, affecting especially the more complex weapons systems: tanks, submarines, combat planes. With regards to the status of the naval forces, see U.S. Naval Institute Proceedings, March 1982, p. 46.

2) Cfr. Senate Delegation Report, Perspectives on NATO's Southern Flank, April 3-13, 1980; A Report to the Committee on Foreign Relations United States Senate, June 1980, USGPO, Washington, 1980, p. 13; Marvine Howe, "Tension over Aegean increasing", in International Herald Tribune, 18 February 1982, p. 5.

3) Cfr. Giacomo Luciani, "The international economic importance of the Mediterranean," Lo Spettatore Internazionale, n. 1/1981, p. 16.

4) From 1 January 1946 to 31 October 1975, the United States used its armed forces in the Mediterranean for political ends on 63 occasions. Cfr. Barry M. Blechman and Stephen S. Kaplan, "The political use of military power in the Mediterranean by the United States and the Soviet Union," Lo Spettatore Internazionale, n. 1/1978, pp. 29-66.

5) It increases from west to east from a minimum of 36.5% to a maximum of 40%.

6) On "gunboat diplomacy" cfr. Hedley Bull, "Sea power and political influence," in Power at Sea, Adelphi Papers, n. 122, IISS, London, 1976; James Cable, Gunboat diplomacy: political application of limited naval force, London, 1970; Edward Luttwak, The political uses of sea power, John Hopkins U.P., 1974; Edward Luttwak and Robert G. Weinland, "Sea Power in the Mediterranean: Political utility and military constraints," in The Washington Papers, n. 61, 1979.

7) Another two Foxtrots have been ordered and are being built in the Leningrad shipyards while the training of Libyan crews in the Soviet Union continues.

8) On the average, the modern FAC have ranges which vary from 1500 to 2000 nautical miles at cruising speed (15-18 knots) and from 500 to 600 nautical miles at high speeds. However, Israeli FAC of the Reshef class circumnavigated Africa in 1973 and crossed the Atlantic to New York harbour in 1976.

9) At the end of 1981 a contract was signed with Brooke Marine for the supply of two MLSs and an agreement has been made with Vosper Thornycroft for the construction in the Mers-el-Kebir shipyards of a 400-ton FAC.

10) France has strengthened its external intervention capacity with the creation of a second rapid deployment force, while in Italy there is talk of creating a mobile intervention force, whose tasks might eventually be limited only to the Mediterranean area.

11) Outside the Mediterranean, there was the episode of the "Pueblo" captured by the North Koreans, while in the Mediterranean, Libya's jets attacked a U.S. C-130 carrying out an electronic data gathering mission in the international waters off the Gulf of Sidra.

12) Cfr. E. Luttwak and R. G. Weinland, op.cit., pp. 7-53.

13) Cfr. Ciro Zoppo, Naval Arms Control in the Mediterranean California seminar on arms control and foreign policy, Research Paper n. 57, 1975.

APPENDIX I

SPREAD OF ANTI-SHIP MISSILE

IN THE MEDITERRANEAN

TYPE OF MISSILE	ALGERIA	EGYPT	FRANCE	GREECE	ISRAEL	ITALY	LIBYA	MOROCCO	SPAIN	SYRIA	TUNISIA	TURKEY	YUGOSLAVIA
EXOCET			●					●			●		
GABRIEL					●								
HARPOON				●	●				●			●	
OTOMAT		●				●	●						
PENGUIN				●								●	
SS - 12							●				●		
SS - N - 2 STYX	●	●					●			●			●
SS - N - 9	●						●						

CHARACTERISTICS OF SURFACE-TO-SURFACE MISSILES DEPLOYED IN THE MEDITERRANEAN AREA (CORVETTES AND FAST ATTACK CRAFT)

Type	Country of Origin	Range (Km)	Warhead Weight (Kg)	Propul-sion	Guidance missile / Warhead	Mounted on	Country
EXOCET	France	42/70	165	S	Inertial / ARS	La Combattante III Lazaga	Greece Morocco
GABRIEL	Israel	41	150/180	S	BR/O / SARS/TV	Saar Reshef Aliya	Israel
HARPOON	USA	110	225	S/TB	Inertial / ARS	Reshef Dogan	Israel Turkey
OTOMAT	Italy/ France	80/100	210	S/TB	Inertial / ARS	October Ramadan Sarviero Wadi M'ragh Dat Assawari	Egypt Libya Italy
PENGUIN	Norway	20/40	120	S	Inertial / IRS	La Combattante III Karfal	Greece Turkey
SS-N-2 STYX	USSR	42	360	S/L	AUT/RC / ARS/IRS	OSA - I OSA - II Komar	Algeria Egypt Syria Libya Yugoslavia
SS-N-9	USSR	75/270			AUT/RC(?) / RC/ARS	Nanuchka	Algeria Libya

Key:

Propulsion S = solid-fuel rocket TB = Turbojet L = liquid-fuel rocket

Guidance ARS = active radar seeker SARS= semi-active radar seeker
TV = Television command IRS = infra-red seeker
RC = radio command AUT = Auto pilot BR = beam riding
O = Optical

Sources: Strategic Survey 1975, IISS, London, 1976, p.23
The Military Blance 1978-1979,IISS, London, 1978, pp. 96-97
integrated by other sources

CHARACTERISTICS OF AIR-TO-SURFACE MISSILES DEPLOYED IN THE MEDITERRANEAN AREA

Type	Country of Origin	Range (Km)	Warhead Weight (Kg.)	Guidance		Launch Aircraft
				Missile	Warhead	
AS-1 Kennel	USSR	100	n.a.	BR	SAHR	Tu-16 Badger
AS-4 Kitchen	USSR	450	n.a.	Inertial	n.a.	Tu-22 Blinder
AS-5 Kelt	USSR	160	n.a.	n.a.	AHR	Tu-16 Badger
AS.30	France	12	230	CG	IR	Mirage III
AS.37 Martel	France/ Britain	60	148	PHR	PF	Mirage III Jaguar
Exocet	France	50-70	165	Inertial	AHR	Super Frelon
Harpoon	USA	110	225	Inertial	AHR	F-4, A-7
Kormoran	Germany	37	160	Inertial	A/PHR	F-104, Tornado
Maverick	USA	22	59	O/TV	TV/aut. Laser	F-4, A-7

Abbreviations:
AHR = active homing radar aut. = automatic BR = beam-riding
CG = command guidance IR = infrared O = optical
PF = proximity fuse PHR = passive homing radar
SAHR = semi-active homing radar TV = television optical

Source: The Military Balance 1978-1979, IISS, London, 1978, p. 92,93 integrated by other sources.

CORVETTES, FAST ATTACK CRAFT, HYDROFOILS ARMED WITH SURFACE-TO-SURFACE MISSILES

Country	No.	Corvettes	SSM	No.	FAC	SSM
Albania				4	Hoku	4 x 2 SS-N-2
Algeria	2	Nanuchka	2x4 SS-N-9	3	Osa-I	3 x 4 SS-N-2
				12	Osa-II	12 x 4 SS-N-2
				6	Komar	6 x 2 SS-N-2
Egypt				4	Komar	4 x 2 SS-N-2
				8	Osa-I	8 x 4 SS-N-2
				9	October	9 x 2 OTOMAT
				6	Ramadan	6 x 4 OTOMAT
France				4	Trident	4 x 6 SS-12
				1	Combat.	1 x 4 SS-11
Greece				2		2 x 4 SS-12
				4	Combat.II	4 x 4 Exocet
				6	Combat.III	6 x 6 Penguin
				4	Combat.III	4 x 4 Exocet
Israel	2	Aliya	2x4 Garbriel	12	Reshef	12 x 4 Harpoon 12 x 5 Gabriel
				12	Saar	8 x 8 Gabriel 6 X 6 Gabriel
				2	Flagstaff(hyd)	2 x 4 Gabriel
Italy				7	Sparviero(hyd)	7 x 2 OTOMAT
				1	Freccia	1 x 5 Sea Killer
Libya	1	Nanuchka	1x4 SS-N-9	3	Susa	3 x 8 SS-12
	4	Wadi M'ragh	4x4 OTOMAT	11	Osa-II	11 x 4 SS-N-2C
	1	Dat Assawari	1x4 OTOMAT	10	Combat.IIG	10 x 4 OTOMAT
Morocco				4	Lazaga	4 x 4 Exocet
Syria				6	Komar	6 x 2 SS-N-2
				6	Osa-I	6 x 4 SS-N-2
				6	Osa-II	6 x 4 SS-N-2
Tunisia				3	P-48	3 x 8 SS-12
Turkey				4	Dogan	4 x 8 Harpoon
				9	Kartal	9 x 4 Penguin-II
Yugoslavia				6	Rade Koncar	6 x 2 SS-N-2
				10	Osa-I	10 x 4 SS-N-2

Forces projected to the end of 1982.

Sources: The Military Balance 1981-1982, IISS, London 1981; Jane's Fighting Ships 1980-1981. Military Technology, Issue 20, special 1980 and issue 23 April/May 1981. Rivista Marittima 1981-1982, Défense National 1981 - 1982.

APPENDIX V

CHARACTERISTICS OF SELECTED COMBAT AIRCRAFT

DEPLOYED IN THE MEDITERRANEAN AREA

MODEL	Country Of Origin	Max Speed (Mach or mph)	Typical Combat radius (Km.)
A-7D Corsair II	USA	0.87/0.92	750-825
F-4 Phantom	USA	1.2/2.27	225-1.056
F-5E Tiger II	USA	1.0/1.5	278-686
F-16	USA	1.2/2.05	550-925
F-104G	USA	1.2/2.2	1.200
G-91Y	Italy	690/0.95	370-565
Mirage IIIE	France	1.1/2.02	1.200
Mirage V	France	1.1/2.02	650-1.300
Mirage F-1	France	1.2/2.2	740-900
Mig-23/Flogger B	USSR	1.1/2.3	725-805
Su-7B Fitter A	USSR	1.2	280-400
Mig-27 Flogger D	USSR	0.95/1.6	390-805
Su-17/-20 Fitter C/D	USSR	1.05/2.17	420-600

Sources: The Military Balance 1977-78, IISS, London 1977, pp. 88-89
Robert P. Berman, Soviet air power in transition, the Brookings Institution, 1977
William Green, The Observer's book of aircraft, London 1981.
Air Force Magazine, Soviet Aerospace Almanac, March 1982, pp.95-102

APPENDIX VI

THE MEDITERRANEAN NAVAL MARKET 1970-1981

Costumer Country	Year Ordered	Building Country	Units	Type
Eygpt	1977	Britain	6	Ramadan FACs(M)
Greece	1970	FRG	4	Type 209 submarines
	1970	France	4	Combattante II FACs (M)
	1974/75	France	4+6(lic.)	Combattante III FACs(M)
		FRG	4	Type 209 submarines
		Holland	2+?(lic.)	Kortenaer class frigate
Israel	1972	Britain	3	Type 206 submarines
	1979	USA	1+1(lic.)	Flagstaff Hydrofoils(M)
Libya	1976	Italy	4	Wadi class corvettes (M
	1975	France	2	PS-700 landing craft
	1977	France	10	Combattange IIG FACs (M
	1979	Turkey	14	SAR 33 FACs (M)
	1980	Turkey	9	C-107 landing craft
Morocco	1973	France	2	PR72 FACs
	1975	France	3	Landing Craft
	1977	Spain	1	Descubierta class frigat
	1977	Spain	4	Lazaga FACs (M)
Spain	1972	FRG	1+5(lic.)	38 m. FACs
	1972	FRG	1+5(lic.)	57 m. FACs
	1974	France	4(lic.)	Agosta type submarines
	1977	USA	3(lic.)	Perry type frigates
Tunisia	1981	France	3	Combattante III FACs (M
Turkey	1972/70	FRG	2+3(lic.)	Type 209 submarines
	1973	FRG	1+3(lic.)	57 m. FACs (M)
	1976	FRG	2+12(lic.)	SAR 33 FACs (M)
	1979	FRG	4	38 m. FACs

In the table are not included the vessels that Algeria, Lybia, Syria and Yugoslavia have received from the Soviet Union.

Source: Military Technology, 4 1982, pp. 93

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