The most important and novel geopolitical and geostrategic transformations in past 20 years have not taken place over the continents. It is observation, telecommunications and satellites beyond the stratosphere which have developed the potential of aviation and communication. Besides, it is especially over the oceans that the greatest changes have taken place. The accumulated offshoot of global geopolitical factors has been of immense magnitude. On the face of it, the following transformations are conspicuous by their significance.

1] The first transformation is the annexation of vast maritime expanses by littoral states.
2] Multiplication of island microstates, resulting chiefly from decolonization.
3] Introduction of nuclear submarines by some big powers for the purpose of deterrence.
4] Development of a formidable Soviet navy competing with and in some cases even surpassing\(^1\) the Pentagon's awesome naval capability.

From geopolitical point of view, in the main, it was unstable Anglo-Argentine (and Chilean) relationship regarding Antarctica, compounded the implications of growing Soviet and American involvement there, which provided the impetus for the negotiation of the Antarctic Treaty.
The Antarctica is the remotest continent. The Antarctic Treaty of 1959 on the governance of Antarctica until 1991, has been one of the most successful treaties in history. So, to begin with, it is in order to first determine the extent question of possible global military interest in Antarctica, and pinpoint the restriction and the loopholes under the terms of this treaty.

While Article I permits the use of Antarctica only for peaceful purposes, prohibiting, inter alia, any ventures of military nature, e.g. establishment of military bases and fortifications, military manoeuvres, the testing of weapons. In Article V, specific restriction has been put on any type of nuclear explosions. Further, as a confidence-building measure, the treaty stipulates that an advance notification of introduction of any military personnel or equipment into the Antarctica, has to be made by the government concerned. More importantly, Article VI specifies that the provisions of the present Treaty (valid until 1991) 'shall apply to the area south of 60°S Latitude... but nothing in the present Treaty shall prejudice or in any way affect the rights... of any State under international law with regard to the high seas within that area'. Does it mean that naval vessels, particularly nuclear powered ballistic submarines, can be allowed to operate in the defined area. Will Antarctica be used as an under-cover depot to conceal SSBNs and the proposed sea-launched ballistic missiles, with a range of, say, 8000 nautical miles by interested naval powers. Will the Antarctic waters be used to directly threaten other nations. However, a breakthrough in anti-submarine warfare (ASW) - perhaps by improved use of space based sensors - will make the
Antarctic ice shelves more valuable. The advantages of hiding underneath the ice shelves are obvious: space-based sensors would be blinded and any attempt at underwater tracking by hunter-killer submarines (SSNs) would be rendered difficult by the ice keels and enormous underwater noise created by pack-ice movement which suppresses the noise generated submarines. The other useful systems which are conspicuous by their omission are: (1) Static emplaced arrays; (2) Nonacoustics; (3) Doppler discrimination torpedoes. However, nothing will replace or make up for the value of all too important operational, in-area experience.

Alternatively, one may speculate that it was superpower insistence that secured the inclusion of the permissive Article VI against some possible future interest in Antarctic. It may also be worth noting that if the superpowers were to ever consider deploying submarines in the area—even in the very distant future—it is certain that they would be interested in Antarctic hydrography, presumably permitted under the Treaty since it is not exactly a military activity in nature. The use of Fractional Orbital Bombardment Systems (FOBS) for strategic defence from Antarctica can not be ruled out. The reverse can also be true if Antarctica is considered useful for missile tracking. Some other issues, pertaining to conventional forces, e.g., USA's better position in Air-craft carriers' capabilities; the Soviets' around Antarctica; geographical proximity of dominant regional naval powers, viz. Chile, Argentina and Australia, to the Antarctic mainland; competing and sometimes
overlapping territorial claims, and their assertion by force; the prospects of Cape Horn, Drake Passage and the Magellan Strait assuming greater importance in a protracted East-West war (in which, the Panama Canal was denied to the United States). The possibility of the Soviet bases in Grahamland which could endanger American shipping through the Cape Horn. In the given situation, using the Drake Passage could become an American nightmare, although it is worth remarking that all current Soviet activity (except for Bellingshausen) is far off from the Drake Passage.

Geographical proximity of Australia to Antarctica and its vantage position on satellite monitoring facilities though supposedly only for scientific purpose - is being widely suspected, particularly by the Greenpeace movement's leadership.

Finally UK's loss of South Georgia in 1982 as comprehensively and as easily as it lost the Falklands Islands and the following military control thereof leads to the fact that it is really difficult to install a military outpost on Antarctica or even on sub-Antarctic Islands, as it is hugely expensive and terribly difficult, particularly when the challenge comes from a regional powers.

Having analysed all these geopolitical factors, Harry Almond comments, 'the guarantee of demilitarization is not through enforcement measures, but by the implied threats of each of the parties that if the area is trespassed, then they will respond in kind... Demilitarized arenas are arenas in which states have no
reason to compete... once states perceive the need to engage in the arena for their own self-defense, or for establishing a critical lease of power, the demilitarized status cannot last. 3

Just as the Palmer Peninsula and the choke point help control, the 650 mile wide Dralu Passage has no less military significance. In World War I, the British intercepted and destroyed the German Pacific Squadron as it headed home through the Drake passage. 4 Less than 20 years later, the Germans used commercial raiders stationed in Antarctic waters to sink 193,000 tons of Allied shipping and Australian light mounted operation Teraben which destroyed the potential submarine base located in the protected harbour and former whaling station of Deception islands in the Palmer peninsula.

A second reason why the Antarctica's location is militarily significant is its central position, relative to many of the Southern Hemisphere's heavily travelled commercial shipping lanes. And as the nations in this hemisphere continue to grow and to develop, the trade passing over these southern lanes is certain to become even heavier, almost doubling in the age case of closure or blockade of the Panama or the Suez Canal. Further, these are many locations, situated in Antarctica and on the sub-Antarctic islands, where commerce raiders might still be based and from which they could wreak havoc on the shipping.

Another reason why Antarctica's geographical location has possible military implications is the fact that it is the only land mass on which a single satellite tracking station capable of
monitoring every pass of a satellite defence system constructed there could be built. It would have an attainment capacity not possible anywhere else.\(^5\) Besides, installation of a very low frequency antennas for communications with submerged submarines is facilitated by the environment of Antarctica.

Finally, it has been suggested that a ballistic missile early warning system (BMEWS) in the Antarctica may some day be seen as desirable. This possibility apparently has been considered by US military planners and was hinted at by Defense Secretary McNamara once, when, during a discussion on the United States' early warning system, he commented: '... the Soviet Union could launch an ICBN attack over the Antarctic, thus, in effect, end running the BMEWS'.\(^6\) In a related area, consideration had been given to the value of a base in Antarctica to direct or redirect ICBM's passing over the south polar regions.\(^7\) However, these arguments have been invalidated to a large degree by recent U.S. tactical missile warning systems and the fact that Soviet SSBNs present a much better threat package than Antarctic basing on Antarctic terminal guidance.

Moreover, the probable review of the Antarctic Treaty in 1991 may bring in challenges to the stability of the region, particularly when mutually exclusive territorial claims and researches come to the forefront, bringing events unforeseen, unexpected, and unbelievable.

Moreover, the geopolitical writings and academic and political discussions in Argentina and Chile have tended to
favour protection of these countries' rights to Antarctica. In the last few years, Brazilian geopolitical analysts have joined the battle with a novel argument that would provide a piece of Antarctica for most of the southern Cone Nations, to the detriment of traditional Argentinian and Chilean claims. Government statements and press commentary in Argentina continued to relate the Malvinas/Falklands conflict to the Antarctic issue, casting aspersions on British motivations and suggesting on some cases that Argentina was the victim of a British-United States (or British-Chilean) conspiracy to deprive Argentina of its Antarctica rights along with the islands.

Further, among other strategies involved, Falkland/Malvinas islands are surrounded by a vast continental platform which has revealed major oil deposits that are already being exploited off the coast of Patagorea. This platform extends as far as south Georgia, where the spine of the Scottish Sea loops upto rejoin the Antarctic Peninsula, itself bounded by a broad continental strip.

After the proposed revision in 1991, the attempt to conquer the southern Antilles by Argentina will also have been intended as a reinforcement and extension of their rights to the 7th continent. It is, however, likely that this continent will be proclaimed as CHM under the auspices of the UN. This will not in reality prevent occupations of the land under the guise of scientific activities. There is already a weekly flight from Moscow to the Soviet Reseach stations around the Antarctic.
A new situation has arisen following the Argentine-Chilean Treaty of Peace and Friendship of 1984, providing for conflict-resolution regarding their Antarctic territories including their respective Antarctic EEZ, without affecting the status of their claims. Although the treaty does not purport to resolve the contrasting Antarctic claims of the parties, it may help avoid any aggravation of such disputes.

The geopolitical considerations and geostrategic compulsions emanating from the ever increasing naval capabilities and spreading super-power naval rivalries have made Antarctica a crisis region of 1990s. So have other territorial and economic interests. Of broader concern is the need to preserve and develop the international regime of Antarctica, in the light of lessons from Falkland Malvinas Islands conflict and also due to overlapping claims. Major security-related issues in the Antarctic region including the southern ocean are as follows:

1. Maintaining secure access to all conceivable gainful resources of ATR (Antarctic Treaty Region) preventing whaling, allowing Krill harvest up to sustainable limit etc.
2. Maintaining secure transoceanic shipping routes through the Drake Passage.
3. Assuaging geostrategic apprehensions by geographically proximal countries, particularly Latin American Australia and New Zealand, ABC Countries.
4. Drawing super power rivalry into the world oceans, mainly the Indian Ocean Region and the Antarctica, the two being the meeting point of the Pacific, Atlantic and Indian Ocean.
The Strategic Importance of Drake's Strait

Map of potential Soviet submarine routes to the Atlantic and principal American zones of control of Soviet submarines.
5. Allaying political apprehensions aroused by a possible ideological challenge to the Antarctic Treaty System likely to come from the Third World States advocating in the UN that Antarctica ought to be declared part of the "Common Heritage of Mankind", thus raising hope of its being future 'Global Commons'.

6. To maintain that ATR is to be used only for peaceful purposes by completely demilitarizing and denutralizing it. Any measure of a military nature is to be completely prohibited. No nuclear explosions or deposits of radioactive waste are permitted.

7. To maintain and preempt the possibility of ATR becoming an area of potential conflict between original signatory powers due to their overlapping territorial claims, as also between the signatory powers and the international community at large.

8. In terms of navigation, the Antarctic Treaty explicitly encompasses the high seas freedom specified in the 1958 Convention of Law of the Sea on the High Seas. At that time the definition of the high seas for the ATR undoubtedly included all the ice free areas, and ostensibly still does.

9. To prevent the nations after 1991 from claiming their respective EEZ and other maritime zones adjacent to the territory claimed by them in ATR.

10. Now that the Antarctica has been declared as an area for scientific research, it has to be ensured that the research going on there is only for peaceful utilization of technology.
Above all, the strategic value of ATR lies chiefly, as it did during the two World Wars in the ocean approaches to the Cape of Good Hope and to the Cape Horn, in the seas that stretch southward to the polar lands. Besides, the persisting conflict over control of the scattered islands surrounding ATR and the demand of South Georgia to be included in the ATR are also points of concern in near future.

Growing concern about shortages of raw materials is causing attention to be concentrated on the sea's natural resources and the prospects for their use. Little wonder then that everywhere naval arms races are becoming all the more ferocious. Likewise, meteorological and oceanographic information is important for a number of tactical and strategic military uses of the sea. Lately there has been enormous emphasis on the effects of physical environment on SONAR (Sound Navigation and Ranging) equipment used in both active and passive mood for submarine detection. In addition, magnetic anomalies and infra-red tracking are being perfected to the same end. As for the submarines, their detectability corresponds to their sound-levels. The ships therefore, routinely tow hydrophones which can detect a submarine at a distance of 6000 miles or even more.

Military operations intended to detect and attack submarines are known as anti-submarine warfare (ASW). On the basis of actual operating depth, nuclear submarines are classified as:

1. Dolphin (3048 meter)
2. NR-1 (4000 meter)
3. Captor (sleeping type torpedo, lying on the sea floor).
The most efficient use of modern SONAR equipment for underwater acoustics requires a synoptic picture of the oceanic thermal structure, wave information for amphibious operations and aircrafts ditching procedures and the correspondence between the submarine diving operations and vertical temperature structure. Further, temporal spatial variations in temperature, both horizontal and vertical, especially those occurring near ocean fronts or the thermocline, greatly affect the velocity and propagation of sound. Thus the sound transmission can be predetermined by using observations and forecasts of the oceanic thermal structure. A predetermination of wave and swell conditions is critical to a successful ditching operation. For submarines, regions with strong density gradient, especially near the thermocline and oceanic fronts, surfacing and diving can be tortuous.

It is significant that the growth of a nation's ocean science activities has been linked to naval need to understand its operational environment, the ocean. Given these trends, there is little doubt that future developments will have serious repercussions for international security, as also for the Antarctica. The success of exocet antiship guided missile system is yet another dangerous asset to nuclear submarines with large titanium hull. Thus, we see that the naval arms race has, in fact, become a race for quality. Moreover, naval arms races are aggravating tensions in a number of regions, including remote areas as the Arctic and Southern Circumpolar Oceans.
Like the Antarctic Treaty but admittedly with less effect, the Third United Nations Conference on the Law of the Sea (UNCLOS III) focused primarily on the peaceful uses of ocean space. Although security issues were and are involved in many peaceful uses of ocean space, they were neither explicitly specified at UNCLOS III nor covered in Antarctic Treaty, 1959. This neglected but major issue should have been fully highlighted in discussions on any conceivable gainful peaceful uses of oceans or Antarctica, because of the inherent linkages. The most ironic example of this was the venture of US Glomer explorer, purportedly for the purpose of manganese nodule mining in the Pacific which turned out to be CIA's attempt to camouflage itself.

Numerous military actions have occurred on the high seas; the best example of this was the Cuban Missile Confrontation in 1962, when the US threatened to stop the search by the Soviet ships on the high seas. Further, naval ships have been used to assert the freedom of seas in controversial instances, as in the case of Great Britain's use of its ships in the mid-1970 to challenge Iceland's extension of its territorial seas to 80 km in what was called the 'cod-war' Falklands/Malvinas Conflict of 1982 may be seen as a conflict over sovereignty on the overlapping continental shelves by Argentina and British-claimed Falkland Islands. More recently, in 1985, Libya blockaded the Gulf of Sidra, claiming it to be its exclusive economic zone, which was purposely and for ably traversed by the US ships in the name of asserting the freedom of the seas.
Dr. Padro, in the General Assembly (UN) warned the militarization of accessible ocean floor through the establishment of fixed military installations and in the exploitation and depletion of resources of immense potential benefit to the world, for the national advantage of technologically developed countries.\textsuperscript{13}

Overlapping divergent claims were made in at least 135 international straits. The UNCLOS III had to reconcile with the "transit passage" and "innocent passage" but at the same time with emphasis on the peaceful or non-military aspects of such passage, even in the innocent passage. The submarines and other underwater vehicles must navigate to surface and show their flag. In contrast, the US President declared that the US will exercise and assert its navigation and overflight rights and freedoms on a world-wide basis,\textsuperscript{14} while claiming for itself only 3-mile territorial sea. Furthermore, transit passage permits nuclear ballistic missile submarine (SSBM) and other submarines to transit through international straits in their normal mode of operation. The prohibition of the emplacement of nuclear weapons and other weapons of mass destruction on the Seabed and ocean floor and in the subsoil thereof of February 1971,\textsuperscript{15} also known as the Sea-Bed Arms Control Treaty, (SACT), with the prescribed area being beyond 12 nautical miles, thus leaving the most obvious area for installation of seabed weapons unregulated. Surprisingly the U.S. draft of the the SACT initially called for a 3 nautical mile seabed zone.\textsuperscript{16} Another significant omission was that of submarine surveillance systems. This was done at the continuous insistence of the U.S. since it regarded these systems
'as essential to its defence'. The Soviet draft of the SACT would have "banned all military uses of the seabed". Because of the comprehensive character of the UN Convention it is impossible to separate security issues without destroying its unity and totality.

The military and economic implications of the EEZ are not easily distinguishable. Any attempt by the maritime powers to roll back EEZ concept of continental shelf appears highly improbable. The optional exemption of military activities from UNCLOS III conflict resolution procedures allows the superpowers broad discretion in relying on EEZ naval activities without violating the law of the sea. Moreover, neither law nor developing states' naval capability has been able to protect its shelf or EEZ. Disputes are likely to result in the use of force or threat thereof in boundary disputes and division of resources, and secondly due to the differences in EEZ rights and duties affecting military activities which tend to follow North-South lines. As with violence-prone strategic disputes in general, resolution of more serious EEZ conflicts is likely to be directly influenced by the respective naval power configurations of the parties involved and the particular military balance in the region concerned. Thus in a way traditional naval freedom of particular interest to super-powers have been safeguarded by the UNCLOS mechanism. At the same time it seems that in the contemporary world situation naval considerations or quasi-naval consideration of a political nature are more responsible than legal considerations for
mounting EEZ restrictions on third state's military activities. The coastal navies, accordingly should not be related to the blue water navies solely in terms of their common position of naval inferiority, instead, be judged on their own terms with reference to the geopolitical context within which they operate. Further the dynamic character of strategically vital locations and changing interests poses another complication. Cuba, for example, has acquired enhanced strategic importance because of an alliance change. Oil discoveries on the continental shelf tend to enhance EEZ's strategic value, as in areas like the South China Sea, where regional and great powers conflicts, overlap or in Weddell sea where UK-Argentina-Chilean claims overlap. In any of such types of events, while strategic interests may be somewhat fluid or even volatile on occasion, naval military capabilities and alliance interrelationships do provide a quantitative factor influencing EEZ disputes. This may even be so in Antarctica too, in the time to come. Deep Sea mining issue is the major bone of contention because of which the USA and its allied countries did not sign the UNCLOS III.

According to the United States the term "peaceful purposes" does not preclude military activities. Thus the whole notion of exclusive use of the seabed for peaceful purposes is rendered ambiguous, particularly when one is confronted with the problem of distinguishing between aggressive and defensive deployments of military force. According to USSR, this proposal of Seabed Committee contributed to ambiguity in the matter. Besides the treaty is supposed to prohibit nuclear mines which are anchored to the seabed but says nothing of nuclear mines to be fixed at
depth without being actually anchored. Nor does it ban facilities or installations erected on the seabed which might be converted to use nuclear weapons though it does ban launching platforms or delivery systems.

The Treaty of Tlatelolco, 1967, for the prohibition of Nuclear Weapons in Latin America, made in the wake of the Cuban missile crisis of 1962 covers the suprajacent waters thus forbidding the development of nuclear-armed submarines and pleading for the denuclearisation of Latin America.

At present the world naval scene is dominated by two main developments viz. (1) enormous naval forces of the USA and the USSR (2) rapid build-up of light naval forces with considerable striking capability worldwide. The acquisition of light naval vessels, therefore, allows new and small navies to expand rapidly into relatively powerful ones. Further, the role of naval air power is steadily increasing.

NATO naval air power is considerably superior to that of the Warsaw Pact, especially in seabased aircraft. The Soviet Union does, however, operate a fleet of land based long and medium range bombers, which are the mainstay of it.

The U.S. Navy has generally been the dominant force in the Pacific Ocean, whereas the Atlantic Ocean has been generally controlled by the United States and other NATO countries. In contrast, the Indian Ocean has essentially been devoid, until recent years, of any preponderant force. The situation has changed recently with the British abandoning some of their Indian
Ocean bases and the Soviet Navy expanding in the area. The U.S. is expanding its Indian Ocean facilities, in particular on the island of Diego Garcia, about 1000 miles South of India. It should be noted that with so many super-tankers coming and going from the Persian Gulf area, the control of shipping in this area is, strategically speaking, extremely important because of world's increased dependence on oil. The Soviet navy operates four fleets ranging the Pacific, the Baltic, the Mediterranean, the Indian Ocean, the South Atlantic. For many years, the Soviet Union has been handicapped by only having ports either in cold water or adjacent to narrow straits. Recent political arrangements, however, have yielded it several warm-water ports, such as Cuba, Ethiopia, Angola and Egypt.

However, in their preference for global naval access and mobility the superpowers have been concerned about increasing restrictions in foreign EEZs, particularly those of Third World, including the EEZ continental shelf, the EEZ water column and the EEZ air space. ¹⁸

Reviewing the domestic political area and interplay of related factors it seems that consistency in naval policy has been very difficult to maintain particularly due to the unstable nature of the government, which radically changes the international relationships and access to ports and other facilities. For example, the Indian navy had to resort for a long time to the operation of two separate fleets - a 'British fleet' and a 'Soviet fleet'.
To sum up, it may be said that developing countries with particularly compelling economic needs, tend to be even more pressed than developed states in providing both for offshore, defence and for more routine EEZ enforcement, but with gaps and varying degrees of success, seriously needing a sustainable back-up naval force. Currently, about fifty littoral states (out of 122 with direct access to the sea) are operating a total of more than 5,500 patrol vessels. Countries such as Argentina, Brazil, Indonesia, Japan, Mexico, Norway and Peru have developed light naval forces to protect their extended interests at the sea.\textsuperscript{19} India, with a long coast of about 6000 km has 8 submarines, 2 aircraft carriers, 1 cruiser, 3 destroyers, 25 frigates with a total of 133 active fleets of considerable strength, and is rapidly perfecting its capability to cope with any threat of aggression and maintain its rights in its EEZ.

Finally modern fast patrol-boats can form the core of enforcers, i.e., the coast guards for surveillance and enforcement supported by regular consideration maritime air patrols. There is a need to change the outlook towards the oceans in deriving all possible benefits from exploration and exploitation of the sea under national jurisdiction, and thus benefitting the national economy and making it possible in future to maintain the navy as at present termed as "expensive and largely containable luxury".

Comparative Perspective on Latin American Navies: Latin America is a particularly significant case of the impact of expansion of Third World navies on the "new ocean order", due to the lead role
FIGURE
SOUTHERN TIERRA DEL FUEGO
of LOS and the Latin Americans' keenness on exploring the possibilities and constraints of the new order.

Traditionally, the navies of Latin American states were oriented to external coastal defence. They were meant for use either in local hostilities involving neighbours or for opposing potential extra-regional aggression or interference, including anti-submarine warfare and the defence of sea-lanes leading to the continent. All Latin American countries have vigorously reacted to restrictions on traditional freedoms of the seas and expansive coastal state jurisdiction, if not 'creeping' jurisdiction.

Some rather striking gaps and contrasts characterize the Latin American naval hierarchy. While Brazil represents the Third World Middle Navy Powers, as does India in Indian Ocean region, Argentina is also a significant Third World naval power. Likewise, Chile, Colombia, Peru, Venezuela are fastly developing off-shore navies - Ecuador/Uruguay representing coastal navies and Guyana, Surinam possessing token navies. The uneven Latin American naval build-up affect current and potential disputes in the sense that one class is increasingly able to sustain national maritime interests while the other represents a passive and vulnerable navy. Difference in naval capabilities between regional competitors as measured by the naval hierarchy will also tend to influence the course and outcome of disputes.

The superpowers' military interest in the Indian Ocean and littoral states is marked by a basic contradiction and a congruence at one and the same time. The Soviets set out the
primary mission of defence of homeland, supported by sea denial to the adversary and naval presence, while the U.S. objectives may be described as strategic deterrance, sea control, projection of power ashore and naval presence. The littoral states of Indian Ocean seem to be particularly notable. While expanding their naval forces by the acquisition of fast patrol boats and other coastal patrol craft that aim at raising the cost of unsought interference from outside to prevent intelligence-gathering ships from coming too close. In the light of the seabed Treaty, 1971, they also seek to protect the resource rights in the EEZ through active patrolling by the coast guards besides prohibiting the installation of foreign ASW devices in the EEZ or continental shelf thus minimizing great power interference, particular in the form of military activity.

Implications of the Falkland Conflict

Although a short-lived incident, the Falklands crisis, was indeed remarkable for a number of issues pertaining to law, politics, economics, military and other maritime aspects, particularly in terms of their applicability and inherent loopholes viz. (1) the assertion by the U.K. of the Maritime Exclusion Zone (MEZ); (2) sinking of the Argentinian warship, the General Belgrano outside the war zone; (3) U.K.'s invocation of and the international law of the self-defence; (4) enhanced range of weapon systems and their challenge to traditional concepts of power at sea and on land; (5) legality of MEZ as a blockade; and (6) relationship of dispute to Antarctica etc.
Analysis of the background of the Falklands crisis and enumeration of events, in sequential way will help clarify the problems and its impact.

UK's first settlement on West Falkland in 1765 and its continuation for only 9 years i.e. up to 1774 was followed by its virtual desertification by 1933. The British possession of the Islands continued uninterrupted for 100 years, though protested by Argentina, upto 1982.

Captain Cook of UK while discovering the Circumpolar Ocean around Antarctica, took the formal possession of South Georgia and South Sandwich Islands in 1775. South Georgia became a centre for whaling and sealing since the 19th century, although the UK had abandoned whaling by 1965. Both South Sandwich Islands and South Georgia were formally annexed by the UK in 1908, as were Grahamland in Antarctica. The first Argentinean claim to South Georgia dated from 1927 and to the South Sandwich Islands from 1948. In 1917 the UK also annexed a sector of the Antarctica continent to the South Pole, as UK territory, overriding claims of both Argentina and Chile in the same sector. In 1962 the UK designated it as British Antarctic Territory, a colony, although all territorial rights were frozen by the Antarctic Treaty 1959.22

In the early 1960s, the Argentina government decided to pursue its claim to the Falkland Islands through the UN which led in December 1965 to adoption of Resolution 2065 inviting Argentina and the UK to find a peaceful solution to the problem
by negotiation. Talks held in 1970 and 1971 led to an agreement to provide sea and air transport and increase trade between Argentina and the Islands. Despite the improvements facilitated by the agreement Anglo-Argentina relation began to deteriorate from 1975 onwards, following the UK vessel Shackleton's voyage of scientific exploration and investigation of the waters of the continental shelf of the Falkland Islands in 1975, and Argentina took it as an indication of UK's final decision of not relinquishing sovereignty over the islands. The frustration resulted in firing of a shot by an Argentinian destroyer, Almirante Storm, across the bows of the Shackleton some 80 miles south of the Falklands on 4 February 1976 followed by an attempt to arrest it. Later in December 1976, 50 Argentinian scientists landed on an uninhabited island in the South Thule group, in the South Sandwich Islands, 1200 miles from the Falkland Islands. Although the landing was soon discovered and periodically protested by the UK, it was difficult for the UK to take any practical steps to remove those Argentinian scientists.

Further in a yet more unclear background the talks took place between 1977 and 1981 with UK's assurance that it would be withdrawing its patrolling ship HMS Endurance in February 1982. But in the mean time a group of workmen employed by an Argentinian scrap merchant, Constantino Davidoff, were landed in South Georgia by Argentinian naval transport, at the Christian Salvesew Company's former whaling station at Leith. They landed without permits, though legally contracted to dismantle the buildings. The group hoisted the Argentinian flag and were
subsequently provisioned by an Aartentinian Antarctic Supply Vessel, with the assurance from Argentian Government that the group would be protected by Argentina because of the fact that they were on the Argentinian Territory of South Georgia.

On 2nd April 1982, Argentina invaded the Falkland Islands. On 3rd April 1982, the UN Security Council adopted resolution 502 which demanded (1) an immediate withdrawal of all Argentinian forces from the Falkland Islands. (2) an immediate cessation of hostilities. (3) Governments of Argentina and the UK should seek a diplomatic solution to their differences and to respect the purposes and principles of the charter of the UN.

On 12 April 1982, UK proclaimed a 200-mile unilateral maritime exclusion zone (MEZ) around the Falkland Islands in the form of a circle of 200 nautical miles from latitude 51°06' South and longitude 59°30' West, and declared that no political or military use could be made of such zones in military terms. It declared that 'any Argentinian warships or naval auxiliaries found within this zone would be treated as hostile and hence liable to be attacked by the British forces. This measure was without prejudice to the right of the UK to take whatever additional measures needed in exercise of its right of self-defence under Art.51 of the UN Charter'. The omission of any reference to Argentinian aircraft, or to ships and aircrafts of third countries acting in support of the Argentina's occupation, indicated clearly the limited nature of the zone, and led to the supposition that British intention was as much to demonstrate political resolution to insist on an Argentinian withdrawal as to
Fig. Southern Cone EEZs and unrecognized claims
seek justification for the immediate use of forces against Argentina Units.23

With the omission of Argentina to accept Security Council Resolution 502, calling on it to immediately withdraw from the Falkland Islands, the British Government proclaimed a 'Total Exclusion Zone' (TEZ) on 28 April 1982 within the same geographical boundaries as the earlier zone applying now to all ships and aircrafts, whether military or civil, operating in support of the illegal occupation of the Falkland Islands. This proclamation resulted in a more active use of the zone to treat mere presence within it as a *prima facie* constituting a hostile act justifying immediate measures of self-defence. So the MEZ was extended into a TEZ from 30 April 1982. From 8 May 1982, by further official declaration, TEZ was vastly extended, now upto 12 nautical miles from the Argentinian coast and the UK Government stated that this was necessary because of the proximity of Argentina's bases (on the mainland) and the distances that hostile forces could discover undetected, particularly at night and in bad weather. It nevertheless fell short of blockade. Doubts concerning what action the UK government would take both within and outside the MEZ persisted. On May 2, 1982, all this was classically illustrated by the sinking of the Argentinian cruiser General Belgrano, an elderly pre-second world-war cruiser, escorted by two destroyers, streaming outside the TEZ boundary to the South of the Falkland Islands torpedoed by a British Royal Navy submarine. The justification given was the brief that the Belgrano, although outside the TEZ zone, was about to attack the British aircraft
carriers within it, and that it was a self-defence measure according to proclamation made on 11 April 1982. Whether British warships would have been spared attack within the zone, had the Belgrano not been sunk, remains highly questionable. Until then, at least, it seemed that the zone had been achieving what is generally thought to be a major purpose of such zones: that, proclaimed by one party in the self-defensive posture, it places the political onus of escalation on the other party to the conflict. Secondly, was the purpose of this blockade was defence only, involving no economic implications. According to UK the existence of a 200-mile security zone was not a limitation on the right in customary international law of self-defence and of taking proportionate action anywhere, right and legal. The vessel later sank on 3rd May 1982 with the severe loss of over 300 crew. The Argentina government accused the UK government of treacherous aggression', strongly condemning the attack as illegal since the General Belgrano was 36 miles outside the said zone. 25

Since the end of active hostilities, on 23rd July 1982 following the acceptance of a cease-fire by Argentina, the TEZ including the 12-mile limit along the Argentinian Coast was replaced by a 'Protection Zone of 150 miles (similar in nature to the original MEZ) around the Falkland Islands and its Dependencies, South Georgia and the South Sandwich Islands, 26 with the Swiss Government playing the intermediary role. The new zone had been established 'to minimize the risk of his understanding and inadvertent clashes. 27 However, on 14 April
1982, Argentina made a formal protest both to the UN and the OAS concerning three in the MEZ in which Argentina on fishing boats near intercepted in Argentina waters between 5-10 August 1982. Argentina stated that UK aggression had now been extended to the territorial waters of Argentina. It stressed that an effective and just peace in the South Atlantic would only be achieved when UK lifts the protection zone and economic sanctions, withdrew its military occupation forces, including nuclear submarines, from the Falklands and nearby bases.

A situation of some jurisdictional confusion now exists similar to those which gave rise to the Pueblo incident in which North Korea arrested the U.S.S. Pueblo, 15 miles off its coast on grounds of espionage (although the captain claimed that he was engaged in Oceanographical research, including the study of sunpots for the IGY) and the Mayaguez incident (in which a US merchant vessel was arrested 6 1/2 miles of the Cambodian Pulo war Islands).

The problem is that while Argentina maintains its claim over 200-miles territorial sea, as do 12 other States (5 of them seeing Latin American), UK maintains only 3-miles, the position being further complexed by UNCLOS III which approves of 12-mile territorial sea and 200-mile EEZ, of which Argentina voted in favour while the UK abstained. Further this must be taken into consideration that in recent years the law of the sea had been developing increasingly on the basis of zonal approach to jurisdiction. The EEZ right extends upto 200 n miles while continental shelf rights either up to 350 miles from the
Fig. - Oceanic division line of 1984 Argentine-Chilean Treaty.
Figure 2: The Brazilian 'frontage theory' of Antarctic sectors. The theory is based on the concept that each South American nation facing the Antarctic would have a sector corresponding to the territory between its unobstructed meridians to the Pole.

baselines or 100 miles from the 2500 m isobath. The convention also provides for coastal states to exercise special jurisdictional rights in particular geographical or in three circumstances. For example, it deals with the rights of States bordering straits and archipelagic States to neglected passage, designation of special area, including ice-covered areas for the purpose of preventing vessel source pollution etc. But their implied military aspects are still untouched and unresolved. Further the convention does not provide for the establishment of zones on the high seas, not even ad hoc ones. For example, a large sea area was closed in the Cuban missile crisis in which the US enforced the so-called 'guarantee' of Cuba in 1962 justifying on various grounds including collective action under the OAS Rio Treaty, self-defence or maintenance of world peace.

More relevant to the types of zones asserted during the Falklands conflict are the wear zones which have occasionally been declared. During the first world war, Germany following the confusion endegered by the sinking of the Lusitania by a submarine, declared that all merchant vessels would be regarded as warships and sunk on slight, since the UK had been arming merchant ships which almost continued upto 1945 and waged unrestricted submarine warfare within the said zone, in breach of the 1936 Londa Protocol. Thus in a way we may say that the main use of such zones was significant by way of a warning to the neutrals. The second kind of zone is more like a blockade in that it limits operations even to the territorial sea e.g. (1) zone declared by the Spanish Republic in 1936; (2) during
Vietnam war; (3) during 1967-73 Middle Easter wars; (4) 1971-72 Indo-Pakistan War (5) 1985 Lybian Crisis in Gulf of Sidra. So these types of war zones attempt to minimize the effects of belligerency on neutral shipping particularly. Further they are more akin to and often coincide with traditional blockade apart from sinking of 15000 ton. Greek Cargo ship Latsion Bride and the 16000 ton south Korean shambow Bannex by Iraqi military in the 1982 August claim of security zone over the North. Of particular interest is the reported civilian casualty of the conflict was the 2,20,000 ton Liberian tanker Hercules, which was bombed on 8th June 1982 by an unidentified aircraft about 50 miles N-E of Falkland Islands, i.e., clearly outside the TEZ limit of UK.

Thus it seems that such zones cannot remove all uncertainties concerning areas of safe passage in the conflict region.

The issues raised by the contemporary Falkland 'security' or 'protection' zones are likely to become even more pressing as the precedent for extended security jurisdictions is copied and in the light of the revelation that UK changed its rules of engagement in order to authorize the sinking of the General Belgrano outside the TEZ, the other being the urgently needed division of continental shelf rights between Falkland Islands and Argentina in the situation where Falkland Islands lie on the physical continental shelf of South America within 200 m depth line. However, if the continental margin is to be defined to the West side of Falkland Islands or the Southern coast of Argentina, a dividing line must be agreed west of the Falkland Islands too.
But so far UNCLOS has not reached any consensus about the criteria to be adopted.

Of broader concern is the need to preserve and develop the international regime of Antarctica, where often 1959 Antarctic Treaty, all territorial claims were frozen at least up to 1991. So South Shetlands, South Orkeys and Graham Land, all forming British Antarctic Territory separated from the Falkland Islands Dependencies in 1962, are also being claimed by Argentina. According to James Fact 'it would not only be under the spirit of the Antarctic Treaty but also of particular benefit if at last South Georgia (presently under UK control) could be brought within the regime located as it is in the great krill fishing areas, and also close to known ferro manganese deposits on the seabed, unanimously. Apart from its strategic importance militarily to Antarctica, it could be further step in the reduction and resolution of conflict over the Falkland Islands and Dependencies.

**Security Issue in Southern Ocean and Antarctica**

Analysis of the various laws and factors influencing military use of Antarctica can be successfully done only when the global maritime geopolitical compulsions and geostrategic considerations are linked to the contemporary geopolitical and geostrategic implications of polar regions, particularly continental Antarctica and are viewed in a holistic manner giving full importance to the indigenous factors influencing the security concerns in the southern circumpolar marine areas and changing international relationships both in ideological as well
as military terms. Equally important will be a rational critical
collection of the different well reasoned logical policy
oriented conclusions resulting therefrom. These should also be
augmented by some speculative legal and political
prognostications.

As discussed previously while describing the growing super
c power rivalry in the world oceans, it has been mentioned that
several important islands and mini-archipelagos lie within the
Southern Oceans' parameters and consequently constitute sites of
regional strategic significance. 34

Further changing nature of icepacks from 2.6 m sq.km. to
18.8 m sq.km, i.e., more than 7 fold, between March to September,
will present an unusual difficulty in maintaining military
operations in the said area, as is being felt in Arctic also but
certainly not to this extent. Unbelievably narrow continental
shelf width, around 30 km, around Antarctica forming a shelf area
of only 4,000,000 sq.km. with depth going up to 800 meters 4
times that of world's average with uncertain protrusions on the
ocean further provide complications in any possible military
activity in the region compounded with the presence of floating
and locally grounded ice shelves of 200 to 1300 meters thickness
with sea ward moving rates ranging between 900 to 1300 meters
each year.

Thus, it may be said that on the basis of the experience of
Arctic and the operating military manoeuvers there in Antarctica
still a gap exists between the technological development in the
said fields and establishment of an operating active military system in the continent and the surrounding waters. But one cannot ignore that visualizing the enormous coverage of SSBNs and cruise missiles, Antarctica is not beyond the reach of the super powers fighting range. Further, due to its nodal positioning in the world map geographically, the continental mass can function as a possible nodal point for military operations, particularly for the air forces indulging in long-distance warfare. Refueling needs can be best served apart from the strategic coverage it provides for atleast the much disturbed southern continent of the world experiencing most of the aggressions, civil wars, boundary conflicts and superpower rivalry. Geographical proximity to this uninhabited continent has been attracting many countries to this place, e.g. Chile, Argentina, Australia, New Zealand who make claims and use it either for their self-defence or otherwise to maintain military superiority in the said region.

Before the 1959 treaty, some 85% of the Antarctic territory was claimed by only 7 countries, viz., Argentina, Australia, Chile, New Zealand, Norway, France and UK on the basis of discovery, exploration and occupation as justification. Rest 13 consultative members chose not to claim territory as such, but as of now, it seems that they would neither abstain from making any claims in future nor would validate any of the claims already made thereby. Notwithstanding their disputed legal merits and status, several important observations can be made with surety about these claimed portions of Antarctica. According to popular view the left out 15% of Antarctic territory was returned
for the U.S. although it has discounted any near firm intention of doing so. 40

From the point of view of resources, the real projected bone of contention for making Antarctica a live issue since 1970, or even earlier from, i.e., IGY. Although the continent mass is devoid of any living resources, the Southern ocean in contrast is the most biologically productive region of the world, a so-called 'area teeming with biological boundary whales, seals, squid, fish birds and of course the krill. Euphasia superba, although a 200 plankton universally distributed in Antarctic water, have their largest concentrations located in the Scotia and Weddell Seas off Queen Maud Land. Krill 41 could also serve as important sources of A, B and D groups of vitamins and minerals such as Calcium, copper, iron, magnesium and phosphorus. 42 Given this realization, the economic possibilities of krill substantially supplementing the world's burgeoning demand for protein seem to be commercially viable. 43

Among the non-living resources, 44 major suppliers are indicated in future of coal, iron, platinum, magnese nodules (containing Co, Ni, Mn, Cu, Fe and Chromium), tin and some heavy minerals and metals viz. tin, titanium, uranium, gold and silver, may be in super abundant quantity. 45 This assessment is based on the facts accumulated by the 'Continental Drift' explanations. Prospective existence of hydrocarbons is guarded by speculative at best, and decidedly dubious in the main. 46 Their full exploration and exploitation appears uncertain. Closely related
to CCAMLR, the 20 ATCPs are now in process of negotiating a legal regime to govern prospective Antarctic mineral resource development. However, with the background of having different perception the negotiating sessions are being organized in haste, as if to make an Antarctic Mineral regime a fait accompli at the earliest possible data that too in an extremely secret way. The upshot has engendered international community about the legitimate status and operation of the Antarctic Treaty system generally.

Recent developments in the UN General Assembly underscore this apparent concern about the "Antarctica question". Undoubtedly, such an Antarctic mineral regime will generate manifold security related implications for the southern ocean, not the least of which pertains to possible exploitation of offshore hydrocarbons of Antarctica's continental shelf and the attendant need to protect and preserve the indigenous marine environment from any resultant oil pollution. Consequently, several multilateral antipollution contentions legally apply to circumpolar Antarctic waters. Maintaining the marine environmental physical salubrity and detoxified ranks high as an international legal priority, containing implicit security implications respective to securing adequate access to the natural resources. Of greater concern however, is the glooming security concerns with the Treaty itself.

Although expressed mildly the Antarctica Treaty mandates that the Antarctica should remain a demilitarized, nuclear free zone, yet because of its interrelation both the regional concerns
in southern hemisphere and its intentional ignorance of the
governance of the activities in Antarctic high seas in practical
terms may invite or result in uninterrupted intervention by the
interested party especially when certain prominent surrounding
water islands have proved their strategic significance in the
past.

Viewed in this regional perspective the following major
security issues came for immediate consideration:

1] Measures for Transoceanic Shipping: These are significant
particularly in the case of Drake Passage's highly strategic
location demanding critical considerations for both military and
merchant vessels particularly when analysed in the light of naval
activities occurred during World War I and II, Falkland conflict
potentialities and case of Panama Canal closure. As a result,
safeguarding the high seas right of free passage through the
northern portions of the Southern Ocean should continue to occupy
a high priority among Antarctic security concerns.

2] Access to living and non-living natural resources both
potential and proven: World's escalated interest, particularly
Third World critical world's recent interest due Third World
critical food needs, has virtually been forcing them to explore
and exploit materials from distant waters. Those with
technological capability has been only partly successful in
exploiting living resources, viz., Russia, Japan, Poland, W.
Germany, E. Germany, Chile, South Korea and Taiwan and Norway
till the date. Respective to non-living mineral resources,
strained diplomatic relations over the question as to which state should exercise rightful jurisdiction over the Falkland/Malvinas Islands. As discussed before, most assuredly, the Falklands war (April-June 1982) graphically revealed the gravity of this dispute. 51

Further the conflicting jurisdictional claims between Argentina and UK over South Georgia, the South Orkneys and the South Shetlands, as well as the pronounced duplicative sector claims evident in Antarctica, all serve to exacerbate security apprehensions in the region. For Argentina, especially, the geopolitical situation appears more real and threatening. The perceived history of British interventionism and coloniazation in the Antarctic region consequently produced in post World War II, Argentina has a reactionary attitude acutely expressed in ultranationalism and vehement assertions of territorial sovereignty in the area. Thus it will not be simplistic to say that it is a political posture that seems unable to escape spawning weighty security implications throughout the Southern Ocean in future years.

The newly emerged ideological challenge to Antarctica Treaty, particularly by Third World nations, naming a few, viz., Malaysia, Antigua and Barbados in their diplomatic initiatives in the 38th UN General Assembly meeting for declaring Antarctica a 'CHM' 52 precipately inspired by the ideology of NIEO, UNCTAD, UNCLOS III and North-South Dialogue, while calling the governance of Antarctica by ATCPs an elite governance, altogether illegal in their view. This confrontation could foster challenges to the
security implications are no less salient, particularly when technological feasibility, commercial profitability, logistical practicality and mineral strategicity is considered. ATCP's and their respective long term national security in terms of strategic metals and hydrocarbons are forcing them to evolve a close circuit resource management regime restricting any exploitation of Antarctic non-living resources in near future. Although still a matter of little diplomatic attention, it does not appear far fetched to visualise Antarctica's ice wealth (source of 70% of world's fresh water) becoming a critical international security issue in future.

3) Analysing the contemporary geoplotical apprehensions regarding Antarctica and its every conceivable military implication there by form an integral and probably most important dimension of Antarctic security.

It is not wholly illogical to argue that long-standing security anxieties felt by both geographically most proximal Argentina and Chile over their exposed southern flanks have served as a principal impetus for their making sector claims in Antarctica. Historically Antarctica has been often depicted by Latin American geopoliticians as a dagger pointed upward at their soft national under bellies. Moreover, conflicts in the region supply sound reasons for concern. Antarctica and Chile have throughout the history acted as antagonists, a situation recently underscored by their protracted legal dispute recently settled over ownership of the Beagle Channel Islands. Similarly, since the 1830s, Argentina and the UK periodically have experienced
present regime's legitimacy in preference to a more universally organized administrative authority or of indeed the CHM movement had not precipitated a nationalistic ATCP land grab before then.\textsuperscript{53}

Introduction of India, Brazil and China to the consultative status has undoubtedly made the case of third world more strong, particularly while preventing any sensitive developmental issue, required for the future functioning of the unified Antarctic policy, notably after June 1991 presumed review conference, to commence at the request of one of the ATCPs consultation. Possibilities always exist, seeing the unpredictable nature of international politics, that sufficient discord and dissension might be generated within the ATCP group to bring about a collapse of the present treaty system. Thus, perhaps the greatest threat to the Antarctic Treaty.

Despite its political fraility, the present Antarctic Treaty system with its needed improvement and modification to approach functional perception developed by all positive reasoning and rationality, rather than rashness, highly nationalistic and misguided rectitude, remain the best mechanism available for responsibility and authoritically treating the afore-mentioned grave security concerns to Antarctica in near and distant future and preserving it exclusively for peaceful purposes.
NOTES


8. M.A. Conant, Pola Strategic Concerns, Oceanus, 1986, pp.64.

9. Sound velocity will increase 1.3 m/s for each 1000 part in salinity, about 4.5 m/s for each °C increase in temperature and about 1.7 m/s for each 100 m increase in depth.


18. P.M. Dadant, Shrinking International Airspace as a Problem for future Air Movements: A Breeding, Santa Monica, Rand. 1978


31. Trial of the Major War Criminals Before the Military Tribunal, Nuremberg, 1948, 22, pp.558. The German Officer responsible for sinking the Athenia was acquitted on the ground that be believed the said ship to be a merchant one.

32 Kharg Island was included in the area declared.

33. The Times 13 August 1982, p.5.


37. de wit, Mining and Minrals in Antarctica, 1985, pp.1-10.
38. ICJ, 1956, UK vs. Argentina, UK vs. Chile, Antarctica cases, ICJ Pleadings, 11.


