the cold front
Hibbs, Russell S
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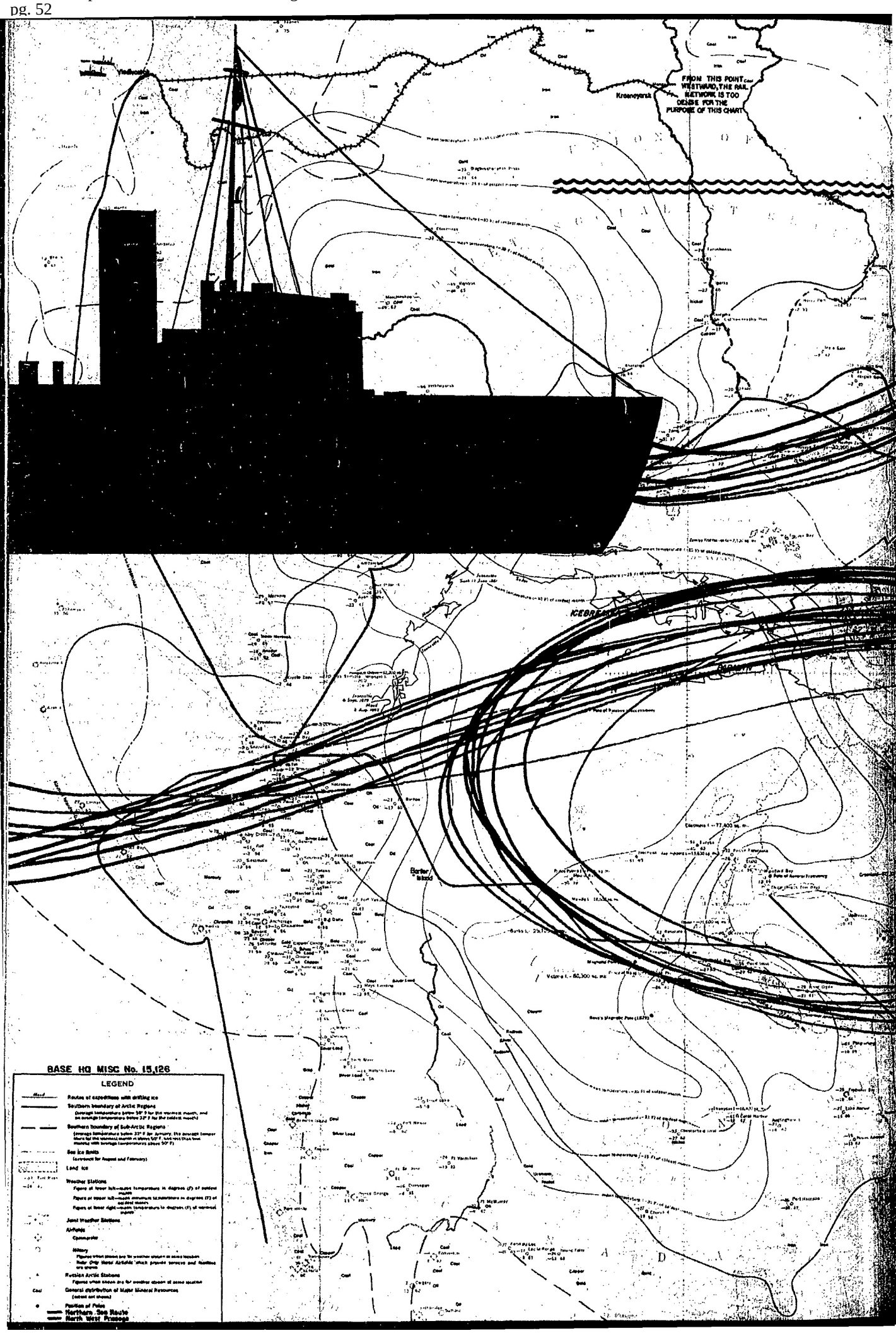

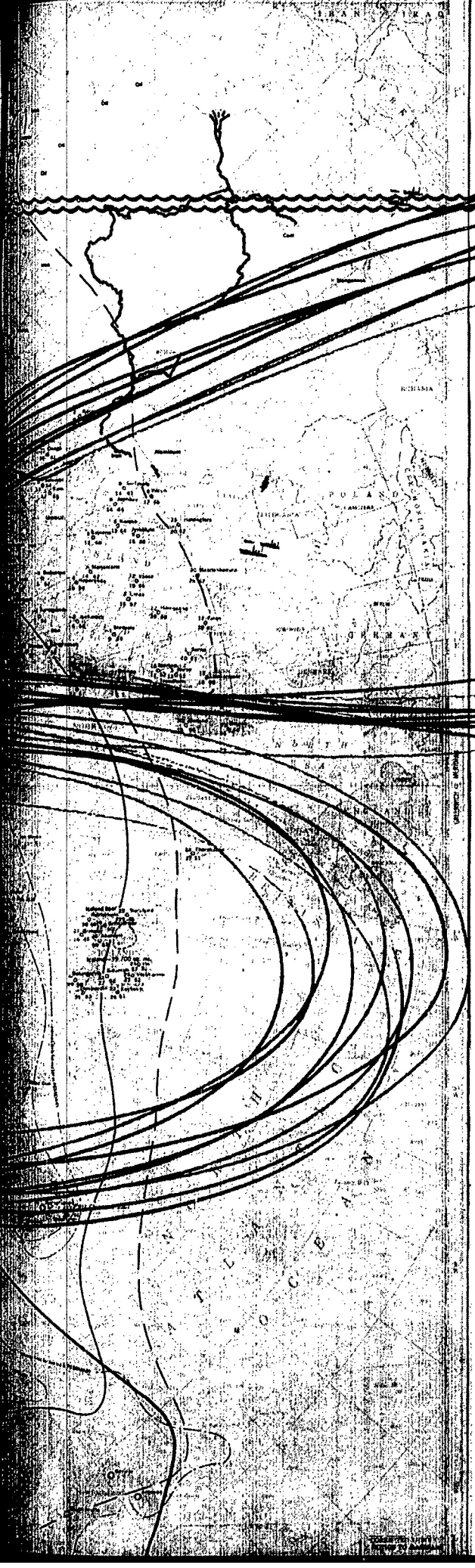

the cold front

By Russell S. Hibbs

On such a full sea are we now afloat,
And we must take the current when it serves,
Or lose our ventures.

WHEN AT THE TURN OF THE TWENTIETH CENTURY Sir Halford J. Mackinder formed his Pivot Area or Heartland thesis, he noted that nine-twelfths of the earth's surface was covered by water. From this realization rose the concept of a World Island. The Heartland of the World Island was defined by Mackinder as the northern and interior part of Eurasia, extending from the Arctic coast to the central deserts. Due to its interior position, the Heartland was not vulnerable to sea power. Thus, the thesis presupposed the barrier effect of the Arctic. The global concept has since become *a la mode,* unfortunately only one facet of the "new" geography is widely heralded; the naval implications and potentialities of the Arctic are generally little understood or studied.

If in the past there was justification to regard Russia and the Soviet Union as a land power, within the geographic body of which lies the Heartland, the present status of the Soviet Navy is adequate warning that such an approach is dangerously archaic. Soviet geopoliticians seek not to pit land power *against* sea power; they are effectively combining continental *with* sea power. This is the story of the expanding potential of the Soviet Navy in the Arctic.

In 1945, James V. Forrestal and Winston Churchill were separated by an ocean but were united by their perspicacity; both realized the necessity of countering communist expansion in the Mediterranean. In 1946, the *Missouri* showed the flag in Istanbul, Piraeus, Naples and other Mediterranean ports. In the following months she was joined by various units of the Atlantic Fleet; the Fleet put teeth in the new policy of containment.

The policy of containment *per se* does not alter or retard Soviet expansion. While highly desirable to contain Soviet expansion in the direction of Turkey, Greece and Italy, such aggression must be met with equal vigor in the Arctic Mediterranean. By what turn of chance has the USSR laid claim to nearly 50 per cent of the Arctic Ocean? Did other powers lack the clairvoyance to foresee the strategic importance of the area? William Henry Seward, Secretary of State in Lincoln's and Johnson's cabinets, contended that the US needed both Iceland and Greenland for control of the North Atlantic. He advocated that they be purchased, not seized by force or undermined by communist-type tactics. Seward's premonition of the value of Alaska in controlling the North Pacific was equally sagacious. Thanks to "Seward's Folly," the US now possesses one bank of the Dardanelles of the Arctic Mediterranean and has some small claim to northern polar areas.

Soviet acquisition of nearly half of the Arctic was not spectacular. The world awoke from a two-dimensional dream to find the USSR in *ipso facto* possession of nearly 50 per cent of a vital area in a three-dimensional world. By a decree of 15 April 1926, the USSR claimed all *terra firma* not already recognized as territory of a foreign state, lying between the coast of the USSR and the North Pole, and between the meridians of longitude 32° 04′ 35″ E & 168° 49′ 30″ W.

The USSR was the first power to claim Arctic lands in this manner; nothing was said of Arctic seas. *De jure* possession of the seas followed *de jure* possession of Arctic landmasses, but *de facto* control of Arctic landmasses came only after *de facto* control of the Arctic seas. In spite of various political theories, the present division of the Arctic is based on silent understanding and the ability to support one's claims. The littoral states attempt to control areas in their particular Arctic regions. Five littoral states are generally recognized as having legitimate sectors of control in the Arctic Mediterranean: the USSR, Canada, Denmark (through Greenland), the United States (in view of Alaska), and Norway.

Control of the Arctic, as of all seas, is relative. Control decreases directly with the distance from the littoral, as modified by intervening landmasses, the economic importance of the littoral, and numerous other considerations. The USSR is cognizant of its control in the Arctic. In all atlases from those prepared for seven-year schools to the *Atlas Mira* (Atlas of the World, one of the most important Soviet atlases), the cartographer has proudly indicated the eastern and western boundaries of the Soviet Arctic realm. This is not an idle boast. Let an American plane venture too near this *mare clausum* and it is shot down.

The US Navy has long been proud to bear the title, "The Nation's First Line of Defense." In the event of a future conflict the front-line shall unequivocally be in the Arctic, and in the Arctic the US Navy may well become only second best. The Soviet Navy is today the world's most experienced in, and best organized for, Arctic operations.

In the era when Spain and Portugal were the great maritime powers, England and Holland sought new routes to overseas markets in order to compete with their maritime adversaries. Both English and Dutch explorers searched for a North East Passage to Cathay; such a route would be free from Spanish interference. Dutch expeditions, in which William Barents played an important role, thought equally in terms of a North West Passage. Barents succeeded in leaving his name to the sea which is but the beginning of the North East Passage, or Northern Sea Route. Henry Hudson made various voyages in search of both a North East and a North West Passage. John Cabot discovered Labrador and Newfoundland in his search for the North West Passage.

More than brave men and spirit was required to overcome the barriers of ice; none of the expeditions succeeded in discovering a through-route, but experience and scientific data were gradually accumulated. At last, 1878-79, a through-voyage was made by the Swede Nordenskiold in the *Vega*. The North East Passage was a *fait accompli*, but many seals were to be whelped and many icebergs calved before the route would be of practical use.

Although great progress was made in Arctic navigation, the North East Passage was not again traversed in its entirety until 1914-15. This time it was the Russians in the *Taymyr* and *Vaygach* under the command of B. A. Vil'kitskiy who took the honors. The trip was of little historical importance; the route had been successfully navigated 30 years before by Nordenskiold. The true significance of the voyage lay in its political implications. The expedition sailed under the aegis of the Russian Government. The regime of Nicholas II was beginning to realize the importance of a waterway linking the eastern shores of Siberia with those of the White Sea. The disastrous results of Tsushima Straits might have been averted had Admiral Rozhdestvenski been able to reinforce the Far Eastern Fleet via a relatively short northern route. It was the difficulty of redeploying the Baltic Fleet that focused official at-

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Favorable Impression

ONE DAY LAST FALL while attending one of the most important local high school gridiron battles in Columbia, S. C., wearing my best dress blue uniform with gloves and swagger stick and my most dignified countenance, my courage almost failed me. As I passed a group of young teen age boys I overheard one of them say, "Man, would you look at that Uncle Sam's cat."

Capt J. W. Duncan

tention on the potentialities of a northern route. The voyage of the *Taymyr* and *Vaygach* marks the shift from economic to strategic motivations. The Tsarist Government had realized the importance of a waterway linking the European and Far Eastern expanses of the empire and was beginning to develop such a water-highway when there took place the most significant single historical event in Western Civilization since the fall of the Roman Empire—the Russian Revolution.

The Soviets not only inherited the scientific accomplishments of the Tsarist state; they were heirs to the comprehension of the strategic importance of the North East Passage. While still in the process of suppressing the last White Forces and "Interventionists," they had impressed upon them the strategic potentialities of the Northern Sea Route. White Forces were deployed both in Siberia and in Arkhangel'sk. The units in Arkhangel'sk lacked food which was obtainable in Siberia; the forces in Siberia needed arms which were to be had in Arkhangel'sk. The most expeditious means of exchanging these supplies was via the Kara Sea. Nine ships succeeded in sailing from Arkhangel'sk to the Ob' River with munitions, and returned with needed foodstuffs. Negotiations were underway for British support of Admiral Kolchak's forces in Siberia via this northern maritime route, but they came to nought.

In 1920, the KOMSEVERPUT' (Committee of the Northern Sea Route) was formed with a view to developing the northern waterway into an artery of practical communication between European Russia and the Ob', Yenisey, Lena, and Kola rivers. It is noted that nothing was said of the creation of a waterway which would link the European and Far Eastern sectors of the country.

By 1932, Arctic operations had grown to such an extent that KOMSEVERPUT' was found inadequate and was replaced by a new organization, the Chief Administration of the Northern Sea Route (GLAVSEVMORPUT'). It was endowed with a more ambitious goal than its predecessor: namely, the development of the Northern Sea Route from the White Sea to the Bering Strait.

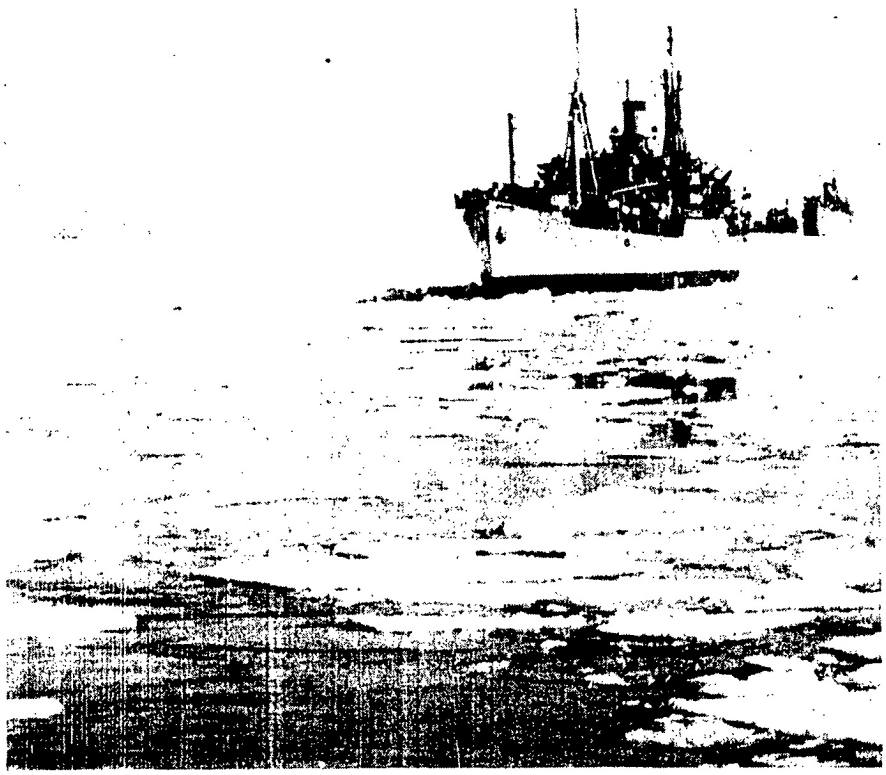
In keeping with the expansion of the administration, the *Sibiryakov*, a Glasgow-built icebreaker, set sail eastward along the Siberian coast with a party of Russian scientists. After being the first vessel to sail around the northern tip of Severnaya Zemlya, the *Sibiryakov* lost a propeller blade in heavy ice. Thereafter, the log relates one mishap after another. With the help of a jury-rigged sail the *Sibiryakov* limped along until she was taken in tow by a trawler.

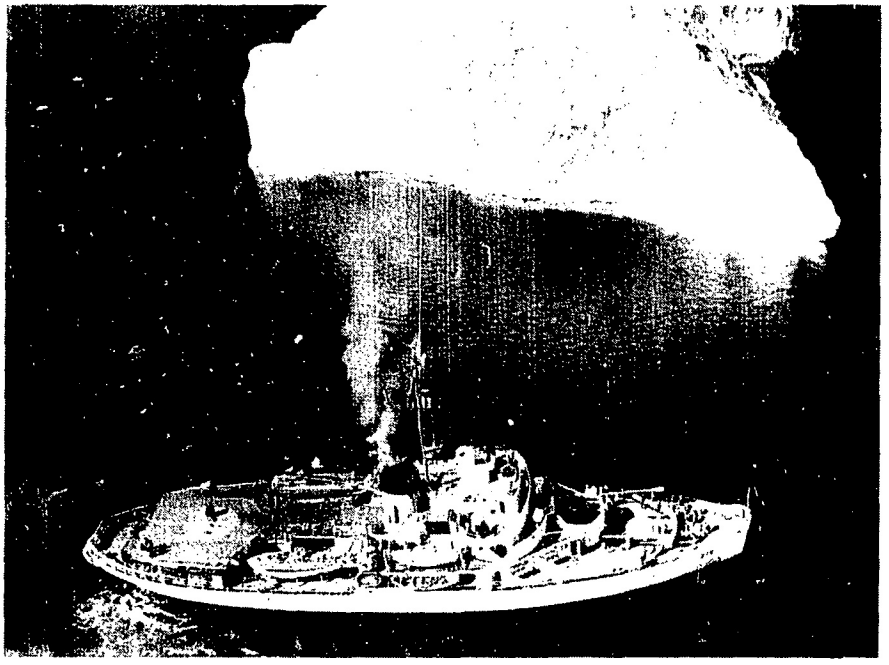
In spite of numerous difficulties, the Soviets planned a new type ship —the *Chelyushkin*, a freighter with a strengthened hull and other modifications for Arctic navigation. If successful, she was to be the prototype of a future northern freighter fleet. The ship sailed in 1933 with O. Yu. Schmidt, the head of GLAVSEVMORPUT', in command. When nearly to Bering Strait, the *Chelyushkin* was trapped by heavy ice and sank. The crew was saved, but it was a hard blow for GLAVSEVMORPUT'.

The year 1937 was equally discouraging. Several convoys were unable to forge through the ice in the vicinity of Proliv (Strait) Vil'kitskovo. Twenty-six ships were frozen in the ice for the winter. Coming at the time of the purges, it is not difficult to imagine the number of heads that rolled in GLAVSEVMORPUT'. If perhaps only a coincidence, it is ironical to note that the man chosen as the new chief of GLAVSEVMORPUT' in 1939, I. D. Papanin, was adrift on an ice floe in 1937. His expedition not only won him recognition, but freed him from implication in the fiasco of 1937; if a bit chilled, he weathered the purges.

GLAVSEVMORPUT' suffered the loss of many functions as a result of the 1937 incident and the purges. It was relieved of territorial administrative functions and was told to concentrate on northern navigation and attendant matters.

The threat of impending war in 1939 loosened Soviet tongues, and the world was allowed to learn what significance the Soviets themselves attached to the Northern Sea Route. At the 8th Party Congress, V. M. Molotov stated that the object of GLAVSEVMORPUT,' under the third Five-Year Plan was, "... to transform the Northern Sea Route into a normal functioning waterway, securing a regular link with the Far





East." Molotov also spoke of developing internal waterways. Comrade Papanin, then head of GLAVSEVMORPUT', was more explicit:

"Tsushima will never be repeated. And if need be, our squadrons will pass along the Northern Sea Route; will pass along in order to annihilate the enemy in his territory, on his land, and in his waters."

For the USSR, war came not with east winds but from the west. The extent to which the Northern Sea Route was utilized by the Soviets during WWII remains uncertain. Operations were apparently conducted with small losses. Normal conditions of poor visibility rendered surface shipping relatively immune to German air attacks. Perhaps the greatest significance of the Northern Sea Route was its role as a maritime route for Lend-Lease goods from the US.

Between 23 and 34 ships sailed the route each year. Some of the freighters were Liberty Ships, which were the largest freighters to sail in the Soviet Arctic waters to that time. All ships were completely manned by Russian crews; the Soviets maintained that the presence of Americans on the vessels would be an excuse for Japanese action against the USSR. It seems clear that the Soviet Navy didn't wish US eyes to scrutinize operations along the Northern Sea Route. Little did most Americans realize that while the USSR was a military ally, she was a political enemy.

It is highly probable that units of the Soviet Northern Fleet were redeployed to the Far East via the Northern Sea Route, although Soviet operations against Japan lasted but 6 days. The Soviets are reticent on this point in their war histories.

In spite of a paucity of information, especially after the end of the military alliance in 1945, a reasonably clear picture of the Northern Sea Route can be developed. The route need not be utilized as a through-waterway to be of great importance. Ground forces, airfields and rocket launching sites can be built and maintained in Siberia thanks to the Northern Sea Route. The isolation of the Heartland is also its weakness. There are only 3 routes to the Soviet Far East and only 2 routes into the Heartland which are adequate for economic and military purposes. The Far East may be supported by the Trans-Siberian Railway, via the Suez Canal or around Africa, and via the Northern Sea Route. Central Siberia can be supplied with the materials of war, to include possible rockets earmarked for Chicago or Seattle, by rail or by the Northern Sea Route. The railroads of the USSR are already overtaxed. That the Trans-Siberian Railroad could serve the military needs of the Far East during a major conflict is doubtful; *ergo,* the increased importance of the maritime route. The Global Concept involves more than the realization that the shortest distance between the US and the USSR is along an arc of a great circle which bends over the Arctic. The outcome of a future conflict may well hinge upon the ability to construct and maintain installations in the Arctic. This is a race that can not be won after the outbreak of hostilities. It is a race being run by the Soviet Navy at present; we must not play the part of an overconfident hare.

The navigational season along the Northern Sea Route is admittedly short, varying from 70 to 120 days between the end of June and the middle of November. The extremities of the route are ice-free before the central section. In one respect this is advantageous, as it allows the formation of convoys on the eastern and western flanks in anticipation of the freeing of more internal waters. River mouths are ice-free before the sea; this permits the staging of freight at river ports prior to the arrival of east-west shipping. The crux of the economic and military problem is the quantity of freight that can be moved. This, in turn, depends not alone on the length of the navigational season but additionally upon such variables as ships' speed, turnaround time, and the capacity of freighters. The Soviets may be unable to substantially lengthen the navigational season, but they are attacking the other factors.

Viewed as a strategic maritime link between European and Far Eastern waters, the short navigational season is definitely a limitation; however, the admitted limitation does not preclude the possible decisive use of the route. An illustration of the potential of the waterway is the passage of the German raider *Komet* in 1940 from Novaya Zemlya to Bering Strait in 21½ days, of which only 14 days were steaming time. There is no logical reason why the bulk of the Baltic, Northern or Far Eastern fleets could not be redeployed in the same manner. The numerical and strategic preponderance of the Soviet Navy is capable of redeployment through Soviet inland waterways. It must, therefore, be concluded that the Soviet Fleets are not divided, as tradition would

have it, but that they have a potential of covert redeployment via inland waterways and the Northern Sea Route. This lends a new omnipresence to once divided fleets.

The remarks of Comrade Papanin were, in 1939, directed at Japan. Today, a threat to the security of Japan is a threat to the best interest of the US and world peace. The remarks are equally applicable to Alaska. World domination is a basic doctrine of the Communist Manifesto. That communism can not for long coexist with other political systems has been reiterated and reaffirmed — not denied — by Lenin, Stalin, Malenkov, Krushchev and Bulganin. Increase the potential of the Soviet Navy to correspond with the 1958 order of battle and an additional 18 years of experience in the Arctic, and there exists not only the intent but also the capability to execute Comrade Papanin's caveat.

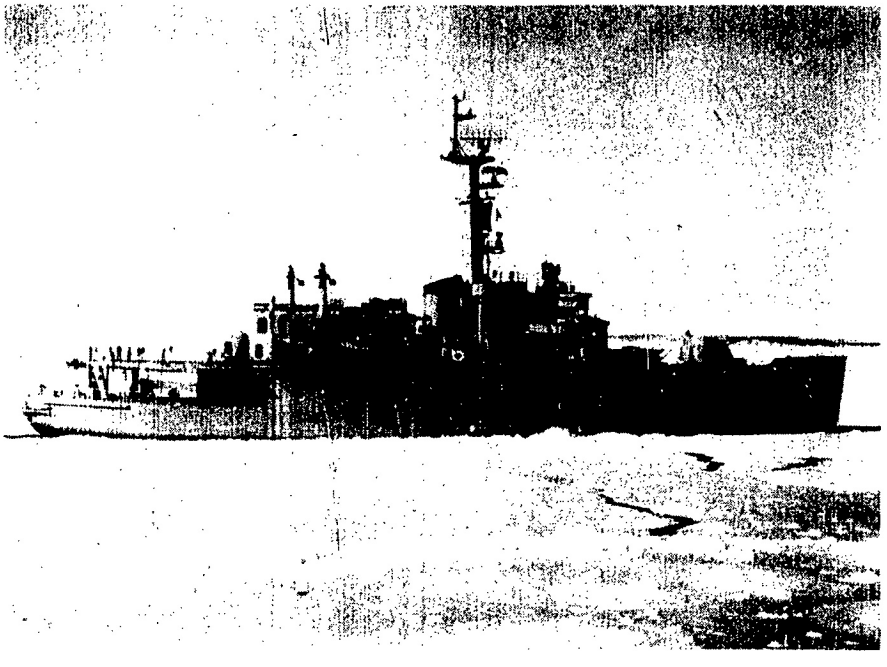
One of the basic tenets of communism is the unity of opposites. In communist eyes every thesis is opposed by an antithesis resulting in a synthesis; every plus is neutralized by a minus. But acceptance of Marxian dialectics is not prerequisite to the realization that Soviet Arctic capabilities must be countermined by our own efforts. To date, what has been accomplished?

The North West Passage was not navigated in its entirety until 1903-06 when Roald Amundsen of Norway made the first through east-west voyage; this event took place 27 years after Nordenskiold had etched his name in Arctic annals. Between the end of WWI and the beginning of the second world conflict, the Soviets accomplished so much more in the Arctic than did Greenland, Canada and the US combined, that a comparison between them is impossible. In 1927, in connection with explorations incident to the Navy's petroleum reserve, an installation was established at Point Barrow, Alaska. An annual expedition of a few ships to resupply this outpost constituted the Navy's first experience with Arctic transport and logistic supply problems. The number of ships and personnel as well as the tonnage carried was insignificant. Just prior to 1940, more than 100 steamers were operating off the Arctic coasts of the USSR, with more than twenty of this number making through passages between European and Far Eastern waters. In the North American Arctic some half dozen steamers were in service; none of this number sailed the full length of the North West Passage. When, in 1937, 26 Soviet ships were frozen in the ice for the winter, the US and Canada combined had no comparable number of ships operating in Arctic waters. Only in 1944 did the *St. Roch*, a Royal Canadian Mounted Police Ship, make the first west-east voyage through the North West Passage.

American captains of industry and finance were not interested in opening an Arctic route. In Russia, the first impetus had come from commercial interests as represented by Sidorov, Sibiryakov and others. Many Canadian financiers who had a share in the railroad didn't wish to see dividends shared with a maritime competitor. Sparsity of population in the Canadian north has been one of the principal factors retarding commercial development of Arctic shipping, but other small nations have been keener in undertaking Arctic commercial investments than have the US and Canada.

The US Navy has acknowledged its Arctic responsibility. Whereas a mantle of secrecy has shrouded Soviet naval activities in the Arctic since WWII, in 1946 the interested US citizen could read of OPERATION ICEBERG, OPERATION FROSTBITE and other Arctic maneuvers. Submarines, aircraft carriers and other fighting ships were pitted against ice and fog. Beginning in 1947, 2 LST's sailed annually to Barter Island in connection with a Loran project. All of these operations were highly commendable, but they were only a small beginning in a strange environment already familiar to the world's most rapidly growing navy—the Soviet Navy. Extensive Arctic transport work was started only in 1951 with OPERATION BLUE JAY. Some 106 ships transported the tons and tons of materiel necessary to establish bases on the coasts of Newfoundland, Labrador and the western shore of Greenland as far north as Thule. After 1951, the resupply of these bases became more or less routine.

In the summer of 1953, a task force landed 10 LSTs on the northern coast of Alaska to deliver equipment and supplies for the Distant Early Warning radar net (DEWLINE) which extends across the frozen top of North America from Cape Lisburne on the northwest coast of Alaska to Baffin Island. In 1955 the Military Sea Transportation Service, a part of the operating forces of the Navy, was charged with further support of DEWLINE. The 1955 Arctic Operation exceeded all past Arctic achievements in the number of ships participating and the tonnage moved. VAdm Francis C. Dene-

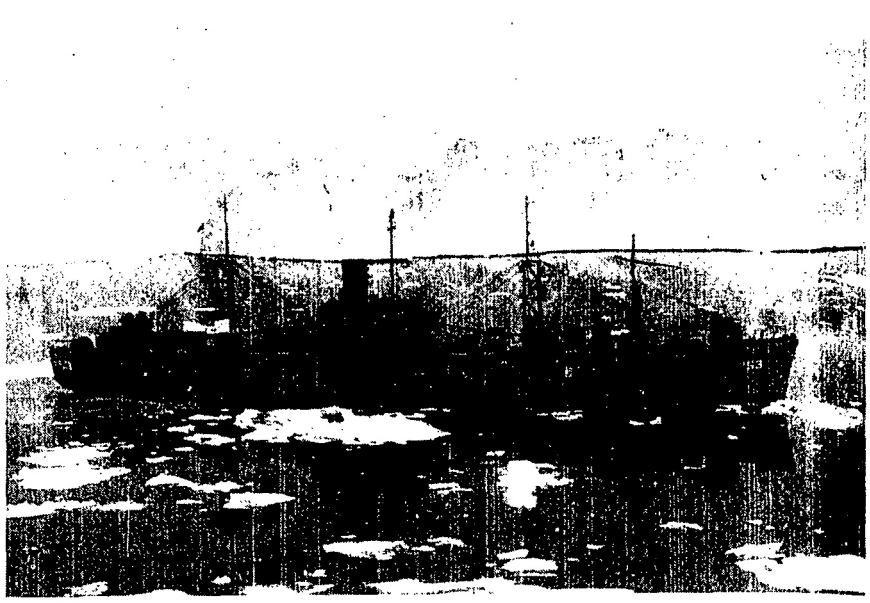


brink, Commander Military Sea Transportation Service, said of the operation:

"It should be understood that in an endeavor of this kind, a basic essential is a knowledge of the geography, topography, and hydrography of the area. Concerning geography and topography, we were quite well informed. . . . In the field of hydrography we were not so fortunate. Bear in mind, please, that until this year [1955], except for the voyages of exploration and icebreaker forays and occasional whalers, no cargo ship had ever gone east of Barter Island nor had any deep draft cargo ship ever gone east of Point Barrow. On the Atlantic side no cargo ships had ever entered Foxe Basin or touched on the eastern coast of Baffin Island. For all practical purposes, therefore, in large sections of the area we were faced with the navigation of waters about which little was known. In Foxe Basin, for instance, our hydrographic data consisted of the reports of the Englishman Parry who explored portions of the area about 1823; the record of some soundings made from a canoe near the northeastern shore by an explorer named Manning and a single-line of soundings made in the central part of the Basin by two icebreakers in 1940."

VAdm Denebrink has been quoted at length to emphasize the crux of our backwardness in the Arctic—inadequate familiarity with the area and inadequate scientific support. Whereas the number of Soviet polar stations is counted by the hundreds, US and Canadian polar stations and bases number only in the dozens. Even if due consideration is given the longer Soviet coast, the comparison is not encouraging. Scientists were put aboard Soviet icebreakers beginning in the 1920's. The data which Comrade Papanin collected on his icy perch in 1937-38 are now integrated parts of sailing directions and long range ice forecasts. Since about 1945, the USSR has issued tidal and current atlases and expansive surveys of her Arctic seas.

Ice forecasts and hydrographic surveys are as essential to Arctic navigation as fuel. If, in 1955, the soundings recorded by Parry in 1823 were the best "hydrographic surveys" available, is there any justification for not proceeding ahead at flank speed to end the enigma of our Arctic waters?



Should the foregoing remarks be judged too sombre, let us hasten to examine a field in which Americans have excelled—marine architecture. The Soviets have always possessed a larger fleet of icebreakers than any other country. This is understandable if one remembers that the White Sea, the Baltic Sea, the Arctic seas, the Pacific, and even the Black and Caspian seas must at times be kept open by the use of icebreakers. It is also worth noting that this frozen maritime environment has contributed to present Soviet experience in the Arctic.

The Soviets claim that they invented the icebreaker in 1868; however, in 1837 *City Ice-Boat No. 1* was built in the US for use on the Delaware. Not until after the strategic lesson of the Russo-Japanese War were 2 icebreakers, the *Taymyr* and *Vaygach*, ordered for use along the Northern Sea Route. During WWI, most of the icebreakers operating about Arkhangel'sk were British built. Only in the 1930's was any serious consideration given to the design of new icebreakers. Prior to this period, practically all icebreakers had been foreign built. The first major Soviet icebreaker, the *Joseph Stalin*, made its debut in 1938. Other ships of the class didn't enter service until just prior to WWII.

Although these were the first large Soviet-built icebreakers, at the time of their launching they were the best equipped breakers afloat. Soviet tactics of "borrowing" tested ideas did not originate with the atomic bomb. British-built ice-breakers delivered to Russia during WWI were studied to develop pre-WWII Soviet craft. During WWII, the US transferred 3 *Northwind* class breakers to the USSR. One ship was returned in 1949, and the other 2 were finally returned in December, 1951. It is certain that any features of these ships which appealed to the Soviets are now incorporated in the Soviet atomic icebreakers reportedly now under construction.

Meanwhile, bigger and better US breakers are sliding down the ways. The *USS Glacier* is equipped with pontoons fore and aft to give the ship extra buoyancy, a 1,200-foot balloon-rigged antenna and other new features. Among developments of the Sea Transportation Service are 3 ship types for Arctic operations: 2 ice-strengthened cargo ships and an ice-strengthened tanker. Although the USSR presently possess the world's largest fleet of vessels designed for Arctic operations, the US Navy's Arctic Fleet is materially second to none.

What then is the deterrent to development of a North West Passage? Is the nature *per se* of the North West Passage an explanation of its retarded development? There are, in fact, numerous potential North West Passages around North America. There is a sharp distinction between the desirability of the various

possible passages depending upon their *raison d'etre*. The vessels of the Hudson Bay Company pick up goods, which have been transported down the Mackenzie River by steamboats, and then take them eastward to Bellot Strait. Other ships sail westward from the St. Lawrence by way of the North Atlantic. Each ship usually turns back after exchanging cargo at Fort Ross. Purely naval considerations dictate the development of a through route. The Canadian Archipelago is divided by a wide furrow of water between Baffin Bay and Beaufort Sea. It is through this furrow—which consists of Lancaster Sound, Barrow Strait, Viscount Melville Sound and McClure Strait—that the American Northern Sea Route must be developed. With the development of Arctic areas and Alaska, such a through route will be found of great interest to industries located on the East Coast and along the St. Lawrence Waterway.

Such a proposed route includes both natural advantages and obstacles. The harbors of southwestern Greenland never freeze over. There are, therefore, natural all-year bases for all types of craft. Conversely, the waters of Greenland contain numerous icebergs during June and July. The west coast of Greenland is also hazardous due to violent local gales. Otherwise, the Northern Mediterranean is one of the least stormy regions of the world. Tay Bay, on the western side of Bylot Island at the entrance to Lancaster Sound, is a good harbor and is clear of icebergs. The course from Baffin Bay to the Beaufort Sea is complicated more by inadequate hydrographic information than by natural impediments.

One of the most difficult sectors of the entire route is in the vicinity of Point Barrow, Alaska. Because of the Gulf Stream, the concentration of Arctic ice is pushed toward the Alaskan side of the Arctic Ocean. The greatest mass of ice is centered not about the geographic North Pole but about the Pole of Relative Inaccessibility.

No attempt has been made to belittle the challenge of the North West Passage. The obstacles are real, but they are alluring and worthy of our greatest attention. The Soviet Northern Sea Route is equally, or more difficult to navigate.

The shallow bottom of the Northern Sea Route vis-a-vis the generally adequate depths of the North West Passage not only are of immediate significance but have the greatest future strategic implications. The ability of submarines to operate for a prolonged period under ice has been proven. It is not too fantastic to forecast the passage of subsurface craft from the North Atlantic to the North Pacific via Arctic waters at any season of the year. The Soviets may be retarded in similar developments due to the shallow bottoms along many of their northern shores. Inadequate depths may complicate lateral navigation of subsurface craft under the ice.

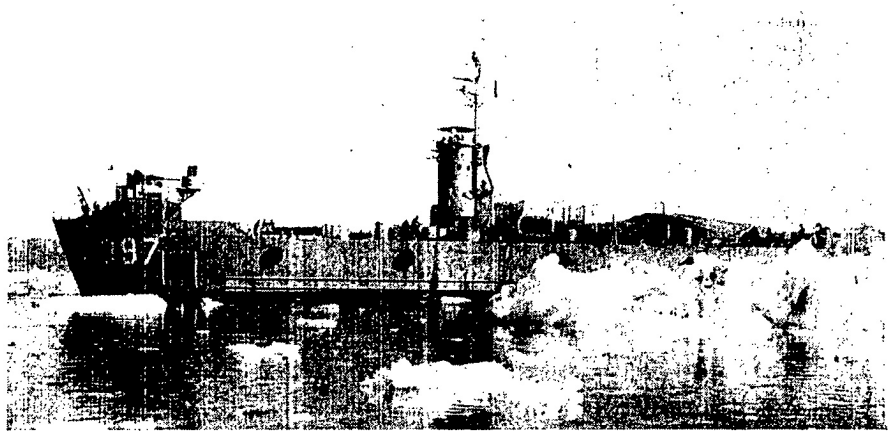
Vilhjalmur Stefansson states that, mile for mile, the North West Passage is no more difficult than the Northern Sea Route, and that 2 round trips per navigational season should be possible between the North Atlantic and the North Pacific. It is the responsibility of the US Navy to prove the validity of Mr. Stefansson's words.

American development of the North West Passage as an antithesis to the Northern Sea Route has been proposed. It is, indeed, ill-advised to blindly oppose all communist endeavors on the basis that their very being must be counterbalanced. Such "strategy" is worse than no strategy and leads to entrapment. But we should recognize the facts: The distance between the North Atlantic and the North Pacific is less via the North West Passage than through the Panama Canal. There is little basis of comparison between the distance through the North West Passage and that around Cape Horn. The *North* Atlantic and *North* Pacific were not selected to prove a *parti pris*. Every one of the world major powers lies north of the equator. Within the Northern Hemisphere are located Eurasia, North and Central America, half of Africa and a small portion of South America. Within this area every one of the major wars of history have been fought. This is not to infer that US interest in the Antarctic is ill-advised, but to assume that future communications between the Atlantic and Pacific oceans will be routed via Cape Horn is to deny the existence of the North West Passage. It is anachronistic thinking of the Japo-Russian War period.

In the September, 1955, issue of the *Naval Institute Proceedings*, Adm Carney stated:

> "Today there can be little doubt that the interim strategy of the Soviet Union is one of controlling selected sea areas adjacent to their own coastal frontier, and then expanding that control as their resources and capabilities increase."

Among the selected areas is the "Soviet" Arctic. Contiguous seas and terra firma are the direct concern of both the US and Canada. Alaska is a prime target for Soviet expansion. The Soviets are aware of Alaska's importance; Alaska guards the Dardanelles of the Arctic Mediterranean. In the event of war, an early attack on Alaska to protect communications between the Soviet Far East and the European USSR via the Northern Sea Route would undoubtedly occur. The ability of US fleet units to repel such an attack would depend to a great extent on familiarity with the waters, adequacy of Arctic bases, and especially Arctic experience — all of which must be



provided now.

The need for air bases, polar stations, ground forces and radar nets in the Arctic is generally recognized. If a trans-polar air attack is to be thwarted, anti-aircraft and anti-rocket sites are needed in the Arctic. All of these installations require logistic support. To again quote Adm Carney:

> "The Navy has always had, and will continue to have, an active and participating interest in improving our national airlift capacity, but we also know the bulk of overseas lifts must for the foreseeable future be moved by sea and protected in transit."

The 1955 Arctic Operations demonstrated the increasing ability of naval transport to meet an ever growing need. As the Polar Concept materializes, so must the ability of the Navy to support the various facets of Arctic operations increase. The desirable, and necessary degree of flexibility will not have been achieved until Atlantic and Pacific Fleets are united by an Arctic maritime highway.

Ships have proven to be the first vehicles powered by atomic propulsion. No other weapon, or mode of transport, presently possesses the degree of maneuverability and the lack of dependence on fixed bases as atomic-propelled ships. It is only a matter of a few years before the US Navy has the beginning of an atomic-powered surface fleet. The combination of atomic propulsion and missile ships portends a revolution not only in naval warfare but a significant revision in our defense concept. It is generally conceded, that if an enemy initiates an atomic war, his first blows will be directed at neutralizing our retaliatory capabilities. Should a potential enemy believe that our retaliatory forces could be neutralized by initial surprise blows, the danger of war would be greatly increased. With the advent of atomic-propelled ships armed with atomic-warhead rockets, the threat of an enemy attack can be significantly lessened. Such vessels are capable of remaining *en garde* for prolonged periods, independent of fixed bases. The location of fleet units at any given time would be unknown; hence, the enemy's inability to neutralize these guardians of peace. If attacked, ships will continue to be less vulnerable launching platforms than fixed bases. They present a small maneuverable target in contrast to a fixed base. They are not targets in close proximity to heavily populated urban areas. For their size, ships possess a greater concentration of anti-aircraft protection than any other launching platform.

The need for hydrographic surveys, polar stations, ice forecasts, and a general greater interest and experience in the Arctic is graphic. Atomic weapons, atomic-propelled ships, and the threat of intercontinental missiles multiply rather than decrease the future importance of the Arctic. Truly, "We must take the current when it serves or lose our ventures."

The Second Polar Year, 1932-33, was organized with the object of obtaining certain geophysical observations at many points on the earth's surface. Even at this early date the Soviets anticipated the strategic value of polar areas and decided to equip new mobile scientific ships and to establish new polar stations. The scientific knowledge acquired at this early date aided the Soviets in establishing their present lead over the US in Arctic research.

Only recently the USSR sent expeditions to the Antarctic to commemorate the International Geophysical Year, 1957-58. The US also had expeditions on the site. We have begun to compensate for past lethargy.

God grant that the Third Polar Year be the peaceful dawn of an Arctic summer, embellished by the splendor of blooming good will among men. Only calm, determined strength can induce such a change of communist permafrost-strategy. The burden of acquiring such strength in the Arctic lies squarely on the relative few who are proud to call themselves Naval officers, men, and interested citizens. US MC

ED: *Since this article was written, the* Nautilus *has proven the feasibility of under-ice operations by steaming more than 1,400 miles under polar ice. In August of last year, the* New York Times *reported the discovery of a new Arctic passage. These events demonstrate the feasibility of the ideas proposed by the author.*