

GEOGRAPHIC SUPPORT STUDY

CURRENT TRENDS IN SOVIET ANTARCTIC
INTERESTS AND ACTIVITIES



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CURRENT TRENDS IN SOVIET ANTIARCTIC
INTERESTS AND ACTIVITIES

No basic changes are currently observable in Soviet long-range interests in Antarctica. Therefore, the Soviets are expected to continue an extensive program of research to acquire detailed physical environmental knowledge, not only on the area, but in relation to total world processes in order to foster more accurate Soviet worldwide forecasting of physical environmental phenomena for peaceful as well as military requirements. Concurrently, they hope to gain prestige from their achievements and to establish an image of Communist superiority and cooperativeness in their international Antarctic relationships.

For the next few years the Soviets are expected to maintain their basic research in glaciology, geology, terrestrial geophysics (including seismology, geoelectricity, geodesy), meteorology, upper atmosphere physics (including geomagnetism, ionospherics), and oceanography. The distinctive Soviet research in geodetic gravimetry is also likely to be given continued emphasis not only for glaciological study but also as a part of the Soviet study on the size and shape of the earth. The coverage of oceanographic surveys by the Soviet Antarctic flagship, the Ob', has been reduced since the Sixth Expedition (1960-61) because it was necessary to subordinate survey activity to the primary mission of resupplying three coastal stations along a 2,000 nautical mile supply route. Any increase in survey activity beyond the present en-route coverage is unlikely unless the number of ships in the Antarctic operation is increased from two to three. In a move to consolidate polar operations and studies, the governmental operational and research activities for Antarctica were transferred about mid-1963 from the Northern Sea Route Administration, Ministry of the Marine Fleet, to the Chief Directorate of the Hydrometeorological Service (GUGMS), which is attached to the Council of Ministers. A Directorate of Arctic and Antarctic Studies was formed under GUGMS to which the Arctic and Antarctic Scientific Research Institute is now attached. Interagency planning and coordination is expected to continue through the Interagency Commission on the Study of Antarctica of the Academy of Sciences, which also functions as the Soviet National Committee for Antarctica. The effects of these changes are not yet observable.

The four permanent stations of the present Soviet network -- Mirnyy, Vostok, Novolazaryevskaya, and Molodezhnaya -- are likely to form the foundation for continental research for some years to come. Mirnyy, which for the past nine seasons has been both the main base for continental operations and the main station for research, is being displaced in these functions by the shift of the Expedition headquarters to Molodezhnaya. Although the latter is the newest station, it already has the second largest Soviet research staff.

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Mirnyy will continue as a logistic base to resupply Vostok at the Geomagnetic Pole and will also conduct some routine observations. In addition to the four permanent stations, Komsomol'skaya will continue to be reactivated for traverse and flight support in summer; Sovetskaya and the Pole of Inaccessibility stations also may be reactivated to support traverse operations between Novolazaryevskaya and one or more of the other permanent stations.

Field operations are now being concentrated on the last major Antarctic research-gap areas, the interior between 20°W and 60°E. Such operations will probably be mounted from the newly developing station, Molodezhnaya, and from Novolazaryevskaya. Within the research-gap area, in March 1964, a traverse connecting Vostok, the "Pole of Inaccessibility," point 78°00'S-20°00'E, and Molodezhnaya was completed. Another traverse from Novolazaryevskaya to point 78°00'S-20°00'E and on to Molodezhnaya probably will be undertaken, possibly in the 1965-66 season. Such operations are being undertaken to secure concurrently scientific and political benefits that result from making new discoveries and publishing original observational data on an unknown area. The Soviets continue to include mineral-resource studies in their geological surveying and mapping activities, but there is no indication of an attempt to exploit any of the deposits they may have discovered. Soviet Antarctic leaders want to increase operational efficiency through the early (November-December) annual delivery of operational personnel by air and through the introduction of jet aircraft in intracontinental operations. Alternate flight routes to Antarctica via South Africa or South America and return routes via New Zealand and Australia also have been studied.

The Soviet use of satellites (Sputniks I, II, and III, Vostoks III and IV, and Electron II) in Antarctic research has been limited so far to simple visual and photographic observations and radio monitoring. Soviet sources indicate that radio monitoring has been used in radio wave propagation studies and that 20 star positions of Sputnik III have been determined. There have been no recent indications of plans to undertake sophisticated tracking. Possibly the next development in the Soviet tracking of satellites may come if and when the Soviets launch high-inclination satellites. The Scientific Committee for Antarctic Research (SCAR) of the International Council of Scientific Unions at its meeting in Cape Town in 1963 called to the attention of the Committee for Space Research (COSPAR) the value of high-inclination satellites for new Antarctic data on eight topics of study, and the International Association of Geodesy in August 1963 recommended satellite observations in Antarctica. Such formal affirmative assertions may aid Soviet Antarctic specialists in justifying an increased use of satellites in Antarctic research. Earlier this year a US program was announced for a worldwide satellite triangulation system using a passive satellite and a photographic technique to formulate precisely positioned triangles on the earth's surface. Thirty-six stations were selected initially, based on the best geometry and on the distribution of landmasses. Of these stations, three are located in Antarctica: Peter I Island, Dumont d'Urville Station, and Molodezhnaya. The US program may well invite Soviet participation since it would be a logical

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extension of Soviet geodetic research in Antarctica, would be consistent with the Soviet policy of cooperation in Antarctica, would give added scientific prestige to Soviet activities, and would offer the USSR a safe back-door entry into international geodetic satellite research without risking the disclosure of Soviet domestic geodetic data or positions.

Soviet whaling operations now include four flotillas: the Slava, the Sovetskaya Ukraina, the Ivan Dolgorukiy, and the Sovetskaya Rossiya. Despite the general concern over depleting whale stocks, the Soviets have stated that they do not intend to reduce their present 20 percent quota set by the International Whaling Commission. Since the 1947-48 season the Antarctic flotillas have included one whaler for research, and in the 1960's the number was increased to four. The Soviets claim that research operations now accompany whaling in all three ocean sectors: the Atlantic, Pacific, and Indian Oceans. Research on whaling includes oceanography, hydrobiology, biology of whales, and the technology of the whaling industry. The feasibility of adapting whaling ships to fishing operations has been studied. The whalers also are used for propaganda purposes when they stop at various ports -- including such remote points as Tristan da Cunha -- and natives are invited aboard and shown Soviet films. Thus, there is little doubt that Soviet Antarctic whaling operations are likely to continue into the indefinite future.

The two-volume Atlas Antarktiki, in preparation since 1961, is now scheduled for publication in 1965. More than 21 research institutes participated in the production of this 500-map atlas, which has been designed to be comprehensive in content and to utilize exhaustively both Soviet and non-Soviet sources in order to offer the "most complete presentation of the natural characteristics and the history of exploration of the south polar region from a position of the leadership of Soviet science, and to help make the atlas understandable and meaningful for the wide mass of our readers." One of the sections of the atlas will tend to show a superiority of Soviet research in Antarctica through the use of Soviet and non-Soviet maps at large scale. Since Soviet maps cover more area of Antarctica at scales 1:200,000 and larger and with more detailed symbolization than those of other countries whose map coverage is at smaller scales, the areas of Soviet activity will appear to have been studied with much greater accuracy. The atlas will be an impressive cartographic production and will be disseminated and shown widely as an effective showpiece of Soviet Antarctic achievements.

The Soviets can be expected to continue to observe the major provisions of the Antarctic Treaty, to support all activities that will insure freedom of access to all of Antarctica, and to support all programs that will stimulate the collection of observational data and assure access to such data. Although no intentions to alter the Treaty are currently indicated, the Soviets can be expected to oppose any proposals that would tend to curb freedom of research or require burdensome reporting of, or accountability on, Antarctic activities. The Soviets are opposed to the establishment of a Secretariat or any arrangements that would start a trend in that direction.

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Their lack of enthusiasm for exercising the inspection provision of the Treaty is currently explainable by their satisfaction with the annual exchange of scientists, who incidentally perform a type of inspection. The Soviets are not likely to be enthusiastic about promoting inspection, but they probably would oppose any moves to restrict or eliminate that right from the Treaty. They are likely to exploit or support proposals that would liberalize the present Treaty restrictions and might afford broader accessioning and participation in the Antarctic Consultative Meetings. The Soviets can be expected to continue to encourage Bloc participation in their Antarctic operations. Up to now, East Germany, Czechoslovakia, Hungary, and to a limited extent, Poland have participated. It is not likely that Poland will reactivate its station in Antarctica, and it is doubtful whether any of the other Bloc countries will mount stations of their own, despite Czechoslovak references to a "Czechoslovak scientific expedition." Exchanges of scientists with non-Bloc countries, such as the one with the United Kingdom for the 1963-64 season, may be broadened. Similar exchanges could even include Chile and Argentina -- especially if Soviet Antarctic ships use either Montevideo or Buenos Aires as a resupply port of call. The Soviets may also broaden non-Bloc scientific cooperation along the lines of the two joint projects already undertaken with the French: (1) the recent joint glaciological traverse and (2) conjugate point magnetic research between the Soviet Arctic and Kerguelen Island.

Although the Soviets appear to be completely satisfied with the Antarctic Treaty and with their participation in SCAR, they were the first to disrupt the harmonious relations among the Treaty signatories. In protest against the racial policies of the Republic of South Africa, the Soviets boycotted both the Seventh Meeting of SCAR and the Symposium on Antarctic Geology which were held at Cape Town in 1963. This action was followed by the abandonment of Cape Town as a resupply port for Soviet ships en route to and from the Antarctic. Even earlier, in 1962, two Soviet military commentators who were intent on deriding the value of the US ballistic missile early warning system pointed out that Soviet rockets can now be launched southward over Antarctica. Such propaganda uses the Treaty prohibition against military installations in an artful maneuver against the US military power image.

Although no further unfriendly actions can now be foreseen, there is no doubt that the Soviets are pursuing a policy of political competition in enhancing the Soviet image. Not only are the usual claims made for the uniqueness and superiority of Soviet achievements, but two new lines of political action have emerged. First, the Soviets have extended their program of historical research and publication into a determined effort to prove their claim of prior discovery of Antarctica by the Russians Bellingshausen and Lazaryev, despite the general decline in publications on the historical sovereignty theme by other Treaty signatories. Second, they persist in labeling US activities as militarily motivated and dominated. In 1963, two authoritative Soviet Antarctic specialists repeated the 1956 unofficial

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remarks of US Admiral Dufek on the value of US Antarctic operations to the US Navy. One of them -- a Soviet exchange scientist who wintered at a US station -- lists the Department of Defense, specifically including each of the three military services, as the leading agency in US Antarctic operations. He ranks the National Science Foundation as fifth in importance, the National Academy sixth, and CIA seventh. In his 1963 book the Director of the Soviet Arctic and Antarctic Scientific Research Institute, A. F. Treshnikov, rehashes old accusations of imperialism against pre-IGY Antarctic activities of the United States. He also ascribes the assignment of research during the IGY to the US Navy by US political and military leaders to two motives: (1) the desire to train military personnel in polar warfare and (2) the desire to explore and map Antarctica because of the importance of exploration and mapping in settling the political status of the continent. He states categorically that operational support for IGY operations of the United States was a cover for military objectives. He also states that US scientists actually fell into complete dependence on the military command, which viewed scientific interests as last in priority. Late in 1963 a USSR broadcast from Moscow for the domestic audience severely derided Cardinal Spellman's Christmas visit to Antarctica, as if the visit of a chaplain arranged by the US Navy were an impingement on the spirit of the Antarctic Treaty. Although these discordant and prejudicial views do not indicate a change in basic Soviet political policy on the Antarctic, they do represent a deliberate Soviet effort to paint the United States in a militaristic image.

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