

HISTORY OF UNITED STATES POLICY

IN

ANTARCTICA

AND

EXPLORATION AND CLAIMS

IN

ANTARCTICA

BY

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December 2, 1963

I think it would be presumptuous really for me to comment on Ambassador Daniels' contributions to harmony in the Antarctic and to the conclusion of the treaty. It seems rather hard for a person who has been in the Department for a number of years to think of anyone else who might have been able to do quite as well and quite as quickly and quite as deftly what the Ambassador did between 1957 and 1959 in consulting with other governments and in bringing about the Antarctic conference in October of 1959 and the treaty which ultimately came out of that conference. I will start this morning, not as your outline indicates, with the past policies of the U.S. with respect to the Antarctic, but rather I will start with a discussion of U.S. exploration in the Antarctic and U.S. activities in the Antarctic. I will exclude the activities of other countries in the Antarctic, not because I am not interested in them but because of the limits of time.

To begin with, the U.S. has been active in the Antarctic for roughly 200 years. This activity began as a result of an expedition which took place under the aegis of the British Government by Captain Cook between the years of 1772 and 1775. During that period, Cook circumvented the Antarctic and after he had done so he finally arrived up here in the region of the South Shetland Islands where he discovered herds of seals. He came back to London and reported this to his Government. These reports became public, and enterprising British and American whalers and sealers quickly drove their ships, which were fragile indeed, further into the South waters in quest of what Cook had seen. They did this almost alone for the last two decades of the 18th century.

In the early part of the 19th century fleets of whalers and sealers from Argentina, Australia, Spain and Russia also penetrated the South Seas. Consequently, in the early decades of the 19th century there was a feverish activity on the part of six nations at least, and probably more, anxious to get as many of those seal pelts as they could for use in trade with China. The United States was, as I said, particularly active right after Captain Cook had made his discovery. It is also interesting to note, and it is something that has been a part of U.S. policy regarding the Antarctic during all of these years, that when Benjamin Franklin learned that Cook was going to take this great expedition down into the South Seas, he had instructions sent to our shipmasters to the effect that these ships were not to be treated as enemy ships. These people were to be treated as those who were in quest of knowledge and in quest of broadening the world's knowledge of geographic areas. This is a traditional U.S. attitude towards science and towards discovery and towards geographic exploration. It is a tradition which started with the beginnings of the Republic and it remains paramount, as Mr. Simsarian will, I am sure, confirm when he explains current activities of the U.S. with respect to the Antarctic.

In the 1819-1820 season, the first season about which we pretend to know very much, according to logs which have been kept in family attics for generations in New England, James Sheffield probably, not absolutely, but probably, cruised along this eastern tip of the Palmer Peninsula and may very well have seen land. There are historians, in England especially, who claim that Bransfield may have also done some exploratory work this far south; but it is really in the next season--1820-1821--that we have it very flat that there were discoveries, that there were things seen, and there were things done in the Antarctic. In that season, in November, Nathaniel Palmer coming from Stonington, Connecticut, a most remarkable young seaman, whaler and sealer, drove his vessel down along the Palmer Peninsula and not only saw it but commented on what he saw. In January 1821, mind you, this is the second season about which we know anything now, in the pay of the Russian Government, Bellingshausen, after whom this sea was ultimately to be named, came to the Antarctic and made a similar journey to that of Cook around the continent without knowing really what he had seen. He was an extremely sophisticated explorer; don't discount that for a moment. He finally arrived in the area of the Bellingshausen Sea, and discovered and named it Peter I Island. He also seems to have come further east and to have seen what he called "Alexander Land," which is now called "Alexander Island." There is a story not confirmed that he and Palmer actually met. And that when Palmer described to Bellingshausen what he had seen, that Bellingshausen shook hands with the young man and said this must be known as the Palmer Peninsula. In any event, whatever the validity of that story, there is no question in anyone's mind now that Nathaniel Palmer deserves the credit for having seen and examined in some detail this area of the continent first.

On February 7, 1821, something even more sensational happened. A gentleman by the name of Davis who had his own ship and who came to the South Seas in the company of another captain by the name of Burdick came down along the Palmer Peninsula and landed. He has been marked as the first person in history to have set foot on the continent. That seems to be the length and breadth of the substance of what was done in the field of discovery in the Antarctic in that season, and considering that Captain Cook had been there more than a generation, almost two generations earlier, it is quite remarkable.

In the seasons of 1829-1830-1831, Pendleton, accompanied by Nathaniel Palmer and his brother, came down into the Antarctic waters, but more importantly, not specifically for whaling and sealing. Rather, he came down into these waters for the purpose of scientific work. He was accompanied on this expedition by Dr. James Eights who headed a scientific group. Pendleton cruised along the western coast of the Palmer Peninsula and down into the Bellingshausen Sea area, sealing and whaling as he went in order to support the scientific effort he had undertaken. Those who do scientific work in the Antarctic today examine the literature of Dr. James Eights because his natural history of the Antarctic is regarded as most advanced.

From 1831 for the next five years nothing much happened with regard to U.S. exploration in the Antarctic. But in 1836 Congress decided to appropriate money for a naval expedition into Antarctic waters. This expedition left in 1838 under the leadership of Lieutenant Charles Wilkes. Wilkes was given instructions by the Secretary of the Navy as to what he was to do. Secretary of the Navy Paulding instructed Wilkes to explore the South Seas and "take all occasions not incompatible with the great purpose of your undertaking to extend the bounds of science and promote the acquisition of knowledge." I think that is a fairly lofty kind of an assignment and Wilkes proceeded to live up to just exactly what it was the Secretary had hoped for. He came down into the Southern waters of South America into Terra del Yuego. He split his expedition in two--three vessels going over to Thurston Peninsula and three vessels going down along the coast of the Palmer Peninsula. Strangely enough, in this first phase which took place in February 1839, the Thurston Peninsula contingent did not apparently see much of anything, but the group that came along the Palmer Peninsula had much to report. After March, as you know, it is not very good sailing weather in the Antarctic. So they went north again and went into the area of the Fiji Islands where they did a good deal of exploratory work and they accomplished much research in botany, zoology and other scientific disciplines. They went to Sidney and then on south to the Antarctic.

Two vessels, one of which Wilkes himself was aboard, proceeded to cruise 1,500 miles westwardly from the Ross Sea roughly to the Davis Coast. He delineated in great detail the landfalls, the mountains, other natural features that would be important to observe and wrote these all up in a seven volume work on the Antarctic. Six of those volumes have been published. The seventh volume, the plates of which are in the Smithsonian Institution and have never been printed as the seventh volume shows the maps of this whole area. Wilkes concluded that Antarctica was a continent. But when all of this was published, the British explorer Ross, after whom the Ross Sea was named, said that the areas that Wilkes claims to have discovered as land in the Antarctic was water over which he had sailed. So a conflict developed over what Wilkes had done. After World War II, Australian explorers, using their more sophisticated instruments of navigation and measurement, sailed Wilkes' course and found it absolutely remarkable that he delineated what is now known as Wilkes Land under such difficult travel conditions.

No one contests Wilkes' discoveries any longer. From the time of Wilkes' expedition to 1853 there were about sixty U.S. whaling and sealing expeditions into these waters, some of them in the sub-Antarctic and some of them in the Antarctic zone itself. In 1853 Captain Heard, accompanied by his wife, the first woman in history really to go into Antarctic waters, took a great circle route apparently relying somewhat on the charts of Matthew Fontain Maury of whom we will discuss later. Heard discovered Heard Island

and sailed to Sidney where he put claim to the island for the United States. He was immediately involved in controversy, as had been the case with Wilkes a decade earlier. His wife pressed his claim for years after his death.

In 1860 Commander Matthew Fontain Maury, Superintendent of the United States Naval Observatory Hydrographical Office of the United States Navy, made certain recommendations concerning Antarctica. Now this is not the beginning of Maury's career. It is the end really. He had been in office, I think, since 1834 and took an active interest in Antarctic exploration toward the close of his tenure of office in 1860. Commander Maury's name was familiar among whalers, sealers and scientists of many countries who used his charts on winds and currents, and he was also a man who was of interest to government officials in the various maritime nations concerned with the character of the ocean. In a letter dated March 31, 1860, Maury recommended to the Secretary of the Navy, Isaac Tousey, that he might wish to "encourage further Antarctic exploration because the climate of these seasons was mild enough to render it habitable" and observed that "improved appliances would seem to promise a degree of success now that was beyond the reach of previous explorations in that quarter." The commander continued to contemplate the possibilities of further Antarctic exploration which might take the form of an American expedition to the area but no concrete proposals emerged from all of this because of the advent of the Civil War in April 1860. But this did not mean that the work that Maury had done would be lost. As we will see in the talk about policy that I will try to give after eleven o'clock, that between 1866 and 1879 the United States undertook another 39 private whaling and sealing expeditions to the Antarctic.

After 1879 the seal trade dwindled as the herds were exterminated. In 1893 the last of the whalers and sealers were hunted in Antarctic waters. In 1874, Lt. Commander Ryan, USN, undertook-- what was to turn out to be a very interesting expedition to the Antarctic--to examine the transit of Venus across the face of the sun. After a great many trials and tribulations, he finally put his ship in at Kuranelen Island where he fulfilled his mission. Several other countries also sent scientists into the Antarctic and sub-Antarctic Ocean for the same purpose. It is the beginning of the very thing which Maury had hoped for. Then the interest of the U.S. in the Antarctic appears to have lessened for a period of years and did not reawaken until the 20th century.

But it is important to note the efforts of Ross and Shackleton who approached to within 127 miles of the South Pole. Moreover, in 1911 Roald Amundsen of Norway put in at the Ross Ice Shelf area and, using dogs, came along the Beardmore Glacier area and on into the South Pole where he placed a standard on December 14, 1911 to give evidence that he was the first to arrive. Strangely enough, Amundsen said it was all very well and good to have been the first

man to have touched down at the South Pole but that all he had wanted was to be the first man to reach the North Pole. So you see, no matter what we accomplish, it seems never to be enough for us. Scott, who did not know that Amundsen had accomplished his mission, had two bases: a storage hut right near our McMurdo Base during the IGY; and a hut near Cape Evans, beautifully built (I had thought that it would be a crude thing) complete with laboratories. On the outside it has a forge for preparing the hardware for building and for preparing sleds and all this sort of thing. But he used ponies rather than dogs. He and four other men arrived at the Pole on January 17, 1912, noticed that Amundsen had preceded him and on the return, almost 150 miles from his bases, he and his party perished only ten miles from a cache.

You have all read, or should read, some of the diary of Scott which is extremely moving literature. Others say if he hadn't been such a good writer he wouldn't have been remembered at all but I think that is quite untrue.

The name which we must all revere very decidedly when we talk about U.S. activity in the Antarctic is the one which comes on the scene in the third decade of the 20th century, Rear Admiral Richard E. Byrd. Byrd's first expedition to the Antarctic was undertaken in 1928-1930. There he established a base called Little America I right in this vicinity on the tip of the Ross Ice Shelf. After having established his base he did a number of traverses in the area and examined mountain ranges. But the main effort was to protect an aircraft which they had brought with them; it almost was destroyed by the quick storms that come up in the Antarctic. In November 1929 Byrd, with a plane laden with fuel, a little like Lindbergh's plane, made the first flight all the way into the South Pole. He turned round and came on out again having made one or two stops for refueling along the way. It was this flight which of course dramatized U.S. reentry into the Antarctic picture. It is important, it seems to me, always to stress, especially when talking to people of nations that have history as long if not older than our own, to dramatize, at least to think if not to talk about it in any great detail, the fact that we have so long been active in the Antarctic. So Byrd came out and this was the major accomplishment of his first expedition. Byrd was also active in the Palmer Peninsula at the same time Sir Hubert Wilkins, who was sponsored in part at least by the Hearst People, made great use of an airplane to explore areas of the southern base of the Palmer Peninsula and along in the Bellingshausen area.

In 1933-35 Byrd undertook his second expedition to the Antarctic delineating geographic features in the area not so distant from what was known as Little America II. He went over into the Marie Byrd Land area which now bears his wife's name. In 1935, on November 23, a young man of some means, Lincoln Ellsworth, whose father had been, I think, in the coal and steel business, came to the Antarctic. After having made two previous efforts in 1933-34-35, when his plane was damaged and he suffered other mishaps, in 1935-36

he came down to Dundee Island and flew an aircraft making four stops, 2,300 miles, to accomplish the first trans-Antarctic flight all the way over to within 14 miles of Little America. He named the area over which he had flown after his father, and it is now known as the Ellsworth Highland. Lincoln Ellsworth again visited the Antarctic in 1939 when he overflew the area named the American Highlands down where the Australian station and the Soviet station and another Australian station are today. In 1939-1941 the persistent and dynamic Byrd was again in the Antarctic on his third expedition to the area. He established Little America III at roughly the same point on the Ross Ice Shelf as the other two Americas had been and a second base at Marguerite Bay on the Palmer Peninsula rough 1,700 miles away. That's quite an accomplishment considering that this was before the war and before the advent of track vehicles. A number of studies were done during that expedition, especially in geology, meteorology, and biology. But the expeditions' efforts had to be called to a halt because World War II had started and the U.S. for the moment withdrew from the Antarctic only to return again in 1946-47.

Again Byrd came to Little America and called it Little America IV. He flew into the South Pole again carrying a cardboard box containing the flags of all the nations that were members of the United Nations which he dropped over the Pole and came on out.

In 1947-1948 Finn Ronne who, together with his father, had served with Byrd on his earlier expeditions, striking out on his own, explored the Palmer Peninsula area and Marguerite Bay to Stonington Island, named appropriately after the birthplace of Palmer. He established a base at Marguerite Bay at Stonington and two bases on the Weddell Sea in order to have support for his aircraft. Accompanying Ronne, one of his pilots was a man by the name of Darlington whose wife also came with him and Ronny brought his wife with him, the first two women in modern times in Antarctica. To be sure from the literature one reads about it, it did introduce a new dimension into the Antarctic; it was not only unprecedented, it was not repeated.

The accomplishments of the expedition in brief were first, to fly a good deal on the Palmer Peninsula area all the way down into the base of the peninsula into what is now known as Edith Ronne land after Ronne's wife. They also undertook a joint traverse expedition with the British who were also active in the Palmer Peninsula for reasons which the Ambassador has referred to earlier and also for scientific reasons.

The final expedition that I want to talk about and then we will be through with expeditions for a bit is called Operation Windmill and took place in 1947-48. Operation Windmill was so named because of the wide use of helicopters. Two ships came down to the Ross Ice Shelf and based themselves there temporarily; overflights were made in the vicinity of the Ross Ice Shelf and efforts were made not only to photograph the regions over which they were flying but also to establish geodetic control points so

that the flights and photographs would be all the more meaningful. They then withdrew the ships with the aircraft aboard and went down around where Wilkes had traveled all the way over 90° and turned round and went back again and all the way around up more than 180° to the base of the Palmer Peninsula. This was a very large undertaking, as you can imagine, and they overflowed a great deal of the coastal area. I think one can say that at least a good part of the names that have resulted along here are the result of this very careful effort to map the ice shelves surrounding the Antarctic. These were roughly the expeditions that have been undertaken by the U.S. during this whole period from the close of the 18th century through mid-point in the 20th century.

In starting the second half of this discussion of Antarctica which pertains really to the development of the policy of the U.S. regarding the area, I must tell you, and this is not false modesty, that I enter upon it with a certain amount of fear because I have two men in the room--the Ambassador and also Mr. Simsarian--both of whom are terribly familiar with what I am going to discuss and will quickly be able to point out any problems or any errors which I might commit.

Although the U.S. had been active in the Antarctic, as I have explained to you earlier, since the latter part of the 18th century, it is really not until the third decade of the 20th century that we really begin to get a policy in the U.S. regarding the area. Now this is not due to any apathy or any lack of interest in the Antarctic on the part of U.S. officials or private individuals. No. It is due to the fact that certain countries began to get more interested, possibly possessive, regarding the Antarctic. So that by 1924, in fact in that year the British government outlined in some detail what it said had long been true, that it had not only an interest but it had actually maintained and had sovereignty over large portions of the Antarctic. The Ambassador has gone into this in some detail so I shan't. But here on this map you can see very easily that the British claim extends over most of the Palmer Peninsula and far over here into the Weddell Sea area, this being the British claim here. Overlapping that claim rather they overlap the claims of two other countries which were really espoused somewhat later than 1924, that of Chile which comes further over to the west in the Bellingshausen Sea area, and the claim of Argentina which overlaps that of both Chile and the U.K. One couldn't ask for a more complicated claims picture, it seems to me. In any event, in 1924, in order to assure other governments exactly of the position the U.S. intended to take in these matters, Secretary of State Hughes made the following statement: "The discovery of lands unknown to civilization even when coupled with a formal taking of possession does not support a valid claim of sovereignty unless the discovery is followed by an actual settlement of the discovered country." Hughes also noted that on occasion the U.S. citizens and others, meaning other nationals, had not followed their exploration by permanent settlement upon any part

of the continent. That was the position taken by Hughes in 1924 and out of it developed the policy which the U.S. was to follow, namely, that the U.S. does not recognize the claims of any government with respect to the Antarctic nor does the U.S. intend for the moment to make any claims, but the U.S. reserves all its rights in the area. In 1934, the U.S. had a chance to explain this policy to the British because they sent us a note explaining that the Ross Dependency area was to be administered by New Zealand. We replied that we did not recognize anyone's claims in the area. In 1939 we had an occasion to explain the same thing to the French Government, who also communicated to us regarding their very small claim in this region just south of Australia.

The war came and when it ended the U.S. was terminating total reliance upon this policy of not recognizing others claims and reserving our rights. This policy of 1924 continues through all the period and is reflected in the text of the Antarctic treaty as you will see if you will note in Article IV. But after World War II the U.S. decided it would have to go further and that the U.S. would have to interest itself in something more than merely claiming it didn't recognize claims. It would have to concern itself with the area because of this very unusual situation in the Palmer Peninsula. After World War II, in 1947, for some reason the Argentineans and Chileans, in bringing down their citizenry into the Antarctic in the region of the Falkland Islands, as the British call them, and the Palmer Peninsula nettled the British who construed their conduct as an effort to exert authority or sovereignty in the region. The British Government, therefore, appealed to these two governments and said, "Look here, this is an area over which we have long maintained that we are sovereign." A dispute resulted and Argentina and Chile were asked by the U.K. to appear before the International Court with the U.K. Argentina and Chile refused. Then in the spring of 1948 the UK sent the Nigeria and the Snipe, two British warships down into the Falkland Islands and Palmer Peninsula areas to demonstrate the British authority in this region. Well, this clearly represented for the U.S. a matter to be concerned about. After all, our interests in the area were over a long period of time. Byrd had been long active there. He had already accomplished his fourth expedition into this region landing at Little America in 1946-47 and now in the 1947 and 1948 period we have this somewhat explosive situation developing in the Palmer Peninsula area. So the U.S., in January of 1948, approached the British Government suggesting that there be some kind of international arrangement regarding the Antarctic to be entered into by the claimant countries and the U.S. The British Government replied that until the claims issue was settled, they would not enter into any arrangement regarding the Antarctic, couched in beautiful British language, of course. But this was the substance of it. Secondly, Britain said that any arrangement with respect to the Antarctica should not include Deception Island, the Southern Gateway to Drake Passage. The third objection of the British to any arrangement for the moment was that they did not

quite know what treatment should be given to certain noises coming already from the Soviet Union. It is not altogether clear how loud those noises were in 1948 and some have even suggested that it was really only after that date that the noises started. But in any event this was the substance of the British reply.

In March, and June 25, 1948 the U.S. drew up a trusteeship arrangement and submitted it to the British for their comment. The arrangement was to be as follows. The U.S. would make a claim to be merged with those of the other seven claimants and south of 60° South these governments would be on an equal footing. The British reply was a very simple one. It was to say that they really preferred some kind of an arrangement similar to the condominium proposal which the U.S. had mentioned orally to them at an earlier stage. Consequently the U.S. obligingly returned to its condominium idea which had only been just voiced orally. On August 9, 1948, we sent a note to the seven claimant countries stating that we would be favorably disposed to some kind of an international arrangement in the Antarctic, and that this arrangement might be a condominium in which event the U.S. would make a claim and these seven governments would be sovereign in this area. We also mentioned, interestingly enough, that there might have to be some kind of an Antarctic Commission established. Although this proposal of the U.S. of August 9, 1948, was not particularly well received by the countries to whom the notes were sent, it did generate a good deal of discussion in those governments, and one result of it was to have both the Belgian and the South African Government indicate to us that they would like to be included in any future discussions regarding settlement arrangements for the Antarctic because of their historic role in the Antarctic. This really closes the second phase of U.S. policy in the Antarctic insofar as you can divide this into compartments because really the movements overlap.

When we had sent our note of 9 August 1948, the Chilean Government had replied with a counterproposal for what was known as a modus vivendi. Another title for this modus vivendi was the "Escudero" declaration. Still another title was that this should be some kind of a "standstill" agreement. These are all ways of describing the Chilean initiative of 1948 which the U.S. now turned to in 1949 and considered quite seriously through 1955. The substance of this Chilean proposal was that the U.S. should make a claim, that the claims of the other claimant countries should be taken into account by the U.S., and that the area of applicability of the modus vivendi would be south of 60°, and that the claims of these countries should be mutually recognized. Each country was to have a claim in the Antarctic, including the U.S., and that these countries would then give one another permission to travel and to do exploration and scientific research throughout the whole of Antarctica, and interestingly enough the proposal also contained a suggestion that there should be an Antarctic Commission but that this Antarctic Commission would have very distinct purposes, namely, to consider the applications of other countries

possibly interested in Antarctic research or exploration to undertake that research in the Antarctic. This Commission had no other purpose. The question of claims--and this contains just a germ, just a suggestion of what ultimately was to evolve--was really to be put in abeyance for from 5 to 10 years. Well, surely this was a very interesting document from the Chilean Government, and the U.S. not only considered it but revised it many, many times over in order to meet the interests of and desires of other nations, and it was still under very active consideration in 1952 when again the eyes of all Antarcticans were again focused on the Palmer Peninsula. Because in the fall of 1952, really during the 1952-53 season if my memory serves me correctly, the Argentinians already had a party located at the tip of the Palmer Peninsula. The British having decided to go into the Antarctic that season and almost every season after World War II came down and attempted to land. When they got their party ashore the Argentinians, noting that they were there, indicated that they would like to have the British get back on their ships and go away. The British refused and the Argentinians fired a machine gun over the heads of the British explorers and the British were then compelled to re-embark. As Ambassador Daniels has said many times, this gets to be pretty serious business when you start shooting in the Antarctic. The British re-embarked and it looked as though the whole incident was closed but the feelings were there and on Deception Island the Argentinians determined to establish in the early months of 1953 a hut right alongside of the British airstrip which had been built in 1928. It is not altogether clear to me how an airstrip built in 1928 would be all that clearly delineated in 1953, but in any event they built and occupied this hut right alongside the British airstrip. Next came the Chileans and they built a hut and marked on the outside "Chile" and left the hut and went off to sea again, back to their warm areas in the north. Well, the British arrived on the scene and tore down both the Argentine and the Chilean huts. I would not, therefore, pretend to suggest anything to you regarding what you should do in the Antarctic but I wouldn't suggest that you discuss anything of this nature with them even in a jocular fashion because it can be quite sensitive--but more importantly for 1952 and 1953, both the incident of the gun being shot in anger and the tearing down of the huts reflecting the conflicting claims of those three countries in that peninsula caused the U.S. to reconsider in a very serious way that modus vivendi proposal of 1948 put forth by the Chilean Government. Nevertheless, in spite of consideration, redrafts and everything else, nothing came out of it.

From 1954 to 1956 we really enter into a new phase, the fourth phase of Antarctic policy in the U.S. This phase is known really as a period when the U.S. at least internally were anxious to assert our rights very definitely in the Antarctic. Obviously we had never acted in any other way but in the national interest, but we talked more about this, it seems to me, in the period 1954-1956.

We were anxious to consider still the modus vivendi of Chile but we were not going to leave a stone unturned to let the world know that we had rights in the Antarctic. Actually we did leave many stones unturned which don't appear. The really strongest assertion of U.S. rights for many, many years doesn't come until the invitation note of May 2, 1958, drafted very largely by the Ambassador in the room here. This tendency came about at a very time when the U.S. was getting very concerned with what was known as the IGY. But I can't talk to you about the IGY without discussing a few of the antecedents to that IGY.

The IGY was a comprehensive effort in international cooperation which extended from July 1, 1957, to December 31, 1958, among the scientists of about 67 nations, to increase and improve mankind's knowledge and understanding of the physical universe, especially the earth, the sun, the atmosphere and the ionosphere. This objective was to be realized through a variety of programs of simultaneous worldwide geographical observations devoted to specific scientific disciplines and geographic areas including the Antarctic. That is the part of course we are interested in, where scientists of interested nations were to coordinate their individual national efforts.

Now the Antarctic phase of the IGY was anticipated in large part almost a century earlier by the gentleman whom I named earlier, the superintendent of the U.S. Naval Observatory and Hydrographical Office, Matthew Fontaine Maury. I can't emphasize that name enough because here was a whole man, here was a man who was a classicist, a man who wrote beautiful prose, a man who had a great knowledge of military as well as political matters, and a man who had an all encompassing interest in science. During 1860-61, in his correspondence with interested officials and private citizens both in Australia, Brazil, France, Great Britain, the Netherlands, Prussia and Russia, Commander Maury urged the cause of Antarctic exploration by means of a national or joint Antarctic expedition. Moreover, in an address before the Royal Geographical Society in Great Britain during November 1860, Maury stressed the need for further Antarctic exploration with a view to selecting a proper place for the observation of the next transit of Venus. I ask you to remember that last part--the next transit of Venus--because it will come up a little bit later. In a letter dated April 9, 1861, Commander Maury recommended to the Secretary of the Navy, Gideon Wells, that he encourage Antarctic exploration by extending "into those unknown regions that combined system of cooperation and research among maritime nations that has already been so fruitful, and brought such practical results to this country and advantages to the world." He was referring here to all these wind charts that he had developed and current charts which he had developed in the 1830s, 1840s and 1850s, so the germ of international cooperation in the Antarctic has at least in part its genesis in a program in the genius of one man's brain because in the '30s, in the '40s and in

the '50s of the last century, this man was handing out to every master of a ship who was going to sea, charts, saying, "Now look, I understand you're going down to South Africa. I understand you're going here. I understand you're going to Australia. I understand you're going to the Pacific Coast. Will you for heavens sake fill out these charts that I am giving to you. Give me the information as to the water temperature, the wind velocity and all of these other details that is requested." These gentlemen cooperated to an amazing extent. Not only Americans but people of other nations; captains of ships of other nations did the same. All of these charts came funneling in to Maury and before Maury was through he had been able to shorten the time that it took a vessel to go from New York to London by a week.

That was how this program of international cooperation that Maury devised in the '30s and '40s and '50s was working. But not only was it working for the U.S., it was also working for other Governments. So he sent out these charts after he had evolved the best route. "If you're going such and such a route, take this course and tack at this point and so forth." So that governments became interested in what Maury was doing. He was recognized abroad as a world authority on the character and the nature of the ocean especially with respect to winds and currents. That was extremely important during this revolution that was going on in nautical matters. So this is what he referred to in extending this kind of cooperation to the Antarctic and how to do it.

On the following day less than two weeks before resigning his commission to accept another in the Confederate Navy--Confederate States Navy--Commander Maury sent identical long and eloquent letters to the Austrian, Brazilian, British, French, Netherlands, Portuguese, Russian, Sardinian and Spanish Ministers in Washington. This shows you the grasp of the man, the knowledge of the man and his understanding. These letters synthesized his ideas with respect to the Antarctic. In describing the motivations which induced man to penetrate the unknown, Maury said the following: "If, in pleading the cause of Antarctic exploration, I be required to answer first the question of Cuibono, which is apt to be put to me, I reply it is enough for me when contemplating the vast extent of that unknown region to know that it is part of the surface of our planet and to remember that the earth was made for man, that all knowledge is profitable, that no discoveries have conferred more honor and glory upon the age in which they were made or been more beneficial to the world than geographical discoveries, and that never were nations so well prepared to undertake Antarctic exploration as are those that I now solicit." Certainly fine language. Certainly a fine proposal. "Among the factors that made this moment propitious," he said, "for undertaking an effort to 'unbar the gates to the south' were the growth in scientific knowledge and the improvement of facilities available for exploration, including the development of the sea steamer." Moreover the evolution of the joint system of national cooperation for the purpose of searching out the mysteries of the sea which was recognized by the maritime nations rendered a cooperative exploratory effort practicable. "Such a program," Maury continued, "could be implemented by the adoption of the following procedures."

Underline these procedures because you'll see them develop a century later. You will also see some of the thought that is here in the May 2 note. "The first step, I submit, should be to send a steamer down from Australia to search for one or more ports or places where the exploring vessels that are to follow may find shelter. And whence they might dispatch boat or land or ice parties according to circumstances. This reconnaissance also would alone occupy one season. The next season vessels suitably equipped for two or three years might be sent to take up their positions where, at the return of summer, they might be visited from Melbourne again and arrangements made for the next season. For many reasons this exploration should be a joint one among the nations that are most concerned in maritime pursuits. The advantages are manifold such as each one of the cooperating powers, instead of equipping a squadron at each expense, would only furnish one or two steamers, and these should not be too large nor should their cost be extravagant."

In 1882-83 came really the first Polar Year. This was preceded by taking council first of all of the fact that Ryan went down on the observation of Venus in 1874-75, a suggestion which had been made by Maury. Little did he dream that it wasn't quite the way he was thinking but at least there were several nations involved in these observations of Venus. First the 1882-83 Polar Year is really the beginnings of seeing Maury's policy being followed. In 1882-83, the first Polar Year emphasized, several nations established stations in the northern zone, the north polar area, and one or two were established in the south. In the second Polar Year, 1932-33, the same thing was done. The emphasis was still in the north but there were also stations down at South Africa and in the Georgia Islands, as I recall. So these were the first two Polar Years, but then in 1950, when the U.S. was still contemplating the possibility of a modus vivendi regarding the Antarctic, the scientists were very active here in Washington and out at the house of Lloyd Burkner in Silver Spring. They contemplated the possibility of a new third Polar Year. The plans were changed after they went through the International Council of Scientific Unions and the various affiliated organizations until finally an International Geophysical Year was proposed for the years 1957-58.

In developing these plans nations were invited to send representatives from their individual scientific community to meet in Paris, in Brussels, and several other areas in Europe where they drew up plans for observance of the International Geophysical Year. Mr. LaLaverre of France chaired the Antarctic conferences where the Antarctic phase of the IGY was planned. It was decided at these conferences that there should be an even distribution of stations, that those countries interested in being active in the Antarctic should not waste their efforts by having stations all in one area but they should be evenly distributed throughout the Antarctic and sub-Antarctic. So as the planning went forth the U.S. began to get extremely active. In 1953 the U.S. established a national committee for the IGY.

This committee had a sub-committee which was called the Antarctic Committee which completed all their planning with the National Science Foundation, National Academy of Sciences, State Department and also the Defense Department, especially the Navy which would of course have to assume obviously a good deal of the logistic responsibility for supporting any scientific effort in the Antarctic.

In 1954 we really begin to adopt something along the lines but certainly not really analogous to the Maury plan. We sent the USS Atka down from the U.S. and it cruised along the Palmer Peninsula and around in a westerly fashion to the Ross Ice Shelf and selected sights which would be most appropriate for our stations only. In the following season, when Deep Freeze I started, in that year--1955-56-Deep Freeze I was implemented. The vessels came down to the Antarctic with plenty of supplies, some of them stopping at Christchurch, which became, by mutual arrangement but nothing particularly written in the beginning, a staging area for our Antarctic explorations. They came to Christchurch and on into the Ross Ice Shelf and established first Little America V, becoming the first base that we established plus, at McMurdo Sound, establishing a U.S. naval air facility. This was the first effort to prepare for the IGY. After all, internationally they had prepared for the distribution of the stations. Now the U.S. knew where the stations that they were being asked to put up would be established.

In the following season 1956-57, on the eve of the beginning of the IGY, the U.S. sent a second expedition to Deep Freeze II. In connection with Deep Freeze II, I should perhaps mention as part of the continuity of Antarctic exploration the fact that Byrd was head of that first Deep Freeze operation and that when Byrd came down it was his suggestion that it be Little America V and that Admiral Dufek, who was then the Captain, was his second in command. Under Deep Freeze II, besides having the stations at Little America and the station at McMurdo Air Facility, we established the Scott-Amundsen South Pole station, the Byrd station on the Marie Byrdland Plateau, the Ellsworth station right here at the base of the Weddell Sea and the Wilkes station here just south of the American Highlands explored by aircraft by Ellsworth many, many years before. We also determined to operate jointly with New Zealand a station here called the Hallett station right on the tip. It is marvelous when you fly out of the Antarctic, the pilot will casually mention where you are going. I wish they would do more of that. They were flying out and they said, "If you would look over to the left about 60 or 70 miles down through the fog you will see Hallett station," and we sort of vaguely saw it down there. So here we have this array of seven stations at the time that the U.S. had established them, and, as you can see from here, the other nations were not exactly inactive themselves. You will see Argentina, Chile and the U.K. mentioned many times through this obvious area where they of course had very important interests. So this in brief is the IGY.

This is what blossomed forth in 1957 and this was what caused John Foster Dulles, Secretary of State, to consider, based largely on what the Ambassador has told you himself to consider, namely, what do we do now regarding the Antarctic? And he, therefore, with a view to really giving very serious consideration to being sure that the U.S. could take whatever initiatives it might feel sensible at this time, invited Ambassador Daniels to come down and advise the Department on Antarctic matters. The Ambassador appeared on the scene in September 1957 and stayed there very actively until the conclusion of the Antarctic Conference in 1959. In the very beginning, as he has outlined to you, the going was fairly slow. But it was interesting because there were so many sensitivities that had to be taken into account; not only the Chileans, the Argentinians, the U.K., but there were also the feelings of the French and the Australians. In fact every country had very peculiar and very different interests towards Antarctica, but gradually an area of understanding developed. The Ambassador had done what most people who are extremely well trained do. He sat down first and wrote out his instructions, had them approved by the Secretary, and then went to work implementing them. His consultations with the other governments were sufficiently fruitful so that by the spring of 1958 he was able to issue first the May 2 note to the parties, an extremely interesting document.

This note was sent to the claimant countries and the note was also sent to Japan, Belgium, South Africa and the Soviet Union. And we, of course, ourselves would make the twelfth power.

"I have the honor to refer to the splendid example of international cooperation which can now be observed in many parts of the world because of the coordinated efforts of scientists of many countries to seek a better understanding of geophysical phenomena during the current IGY. These coordinated efforts of the scientists of many countries have as their objective a great increased knowledge of the planet on which we live and will no doubt contribute directly and indirectly to the welfare of the human race for many generations to come. Among the various portions of the globe where these cooperative scientific endeavors are being carried out with singular success and with a sincere consciousness of the high ideals of mankind to which they are dedicated is the vast and relatively remote continent of Antarctica. The scientific research being conducted in that continent by the cooperative efforts of distinguished scientists from many countries is producing information of practical as well as theoretical value for all mankind. The IGY comes to a close at the end of 1958. The need for coordinated scientific research in Antarctica, however, will continue for many years into the future.

"Accordingly, it would appear desirable for those countries participating in the Antarctic program of the IGY to reach agreement among themselves on a program

to assure a continuation of the fruitful scientific cooperation referred to above. Such an arrangement could have the additional advantage of preventing unnecessary and undesirable political rivalries in that continent, the uneconomic expenditure of funds to defend individual national interests and the recurrent possibility of international misunderstanding. It would appear that if harmonious agreement can be reached among the countries directly concerned in regard to friendly cooperation in Antarctica there would be advantages not only to those countries but to all other countries as well. The present situation in Antarctica is characterized by diverse legal, political, and administrative concepts which render friendly cooperation difficult in the absence of an understanding among the countries involved. Seven countries have asserted claims of sovereignty to portions of Antarctica, some of which overlap and give rise to occasional frictions. Other countries have a direct interest in that continent based on past discovery and exploration, geographic proximity, sea and air transportation routes, and other considerations.

"The U.S. for many years has had and at the present time continues to have direct and substantial rights and interests in Antarctica throughout a period of many years commencing in the early 1800s. Many areas of the Antarctic regions have been discovered, sighted, and explored and claimed on behalf of the U.S. by nationals of the U.S. and by expeditions carrying the flag of the U.S. During this period the Government of the U.S. and its nationals have engaged in well known and extensive activities in Antarctica. In view of the activities of the U.S. and its nationals referred to above, my Government reserves all of its rights, all the rights of the U.S. with respect to the Antarctic region, including the right to assert territory claim or claims."

I don't remember language like that for a very long time in connection with the Antarctic, if ever.

"It is the opinion of my Government, however, that the interests of mankind would best be served in consonance with the high ideals of the charter of the UN if the countries which have a direct interest in Antarctica were to join together in the conclusion of a treaty which would have the following peaceful objectives.

- A. Freedom of scientific investigation throughout Antarctica by citizens, organizations, and governments of all countries and a continuation of the international scientific cooperation which is being carried out during the IGY.

- B. International agreement to insure that Antarctica be used for peaceful purposes only.
- C. Any other peaceful purposes not inconsistent with the charter of the UN.

"The Government of the U.S. is prepared to discuss jointly with the governments of other countries having a direct interest in Antarctica the possibility of concluding an agreement which would be in the form of a treaty for the purpose of giving legal affect to these high principles. It is believed that such a treaty can be concluded without requiring any participating nation to renounce whatever basic historic rights they have in Antarctica or whatever claims of sovereignty it may have asserted. It could be specifically provided that such basic rights and such claims would remain unaffected while the treaty is in force. And that no new rights would be acquired and no new claims made by any country during the duration of the treaty. (This is the substance of Article IV of the Treaty.) In other words, the legal status quo in Antarctica would be frozen for the duration of the treaty permitting cooperation in scientific and administrative matters to be carried out in a constructive manner without being hampered or affected in any way by political considerations. Provisions could likewise be made for such joint administrative arrangements as might be necessary and desirable to insure the successful accomplishment of the agreed objective. The proposed treaty could be deposited with the UN and the cooperation of the specialized technical agencies of the UN would be sought. Such an agreement would provide a firm and favorable foundation for a continuation of the productive activities which have thus far distinguished the IGY and would provide an agreed basis for the maintenance of peace and orderly conditions in Antarctica during the years to come and would avoid the possibility of that continent becoming a scene of international discord. In the hope that the countries having a direct interest in Antarctica will agree on the desirability of the aforesaid high objectives and will work together in an effort to convert them into practical realities, the Government of the U.S. invites ~~these~~ other governments to participate in a conference for this purpose to convene at an early date in a place that will be mutually agreeable."

There followed sixty meetings between the U.S. and representatives of other governments here in Washington. These conversations as the Ambassador has suggested were often tedious, very often difficult, and instructions were often not forthcoming from governments to allow the representatives to be more cooperative. But ultimately by the fall of 1959, a sufficient area of agreement had been arrived at so that the conference could be convened on October 15, 1959.

That conference lasted six weeks. It was an extremely interesting conference. The U.S. had a rather large delegation to it. The Ambassador was exceedingly active, it seems to me, throughout the whole of it, bringing to fruition something which he had long envisaged. The working papers drafted by the group during consultations in Washington for that eighteen month period figured very greatly at the conference although at first there was some dispute as to their status. Finally, on December 1, 1959, we had the treaty signed by all the parties and now the ratification process had to be gone through and this took another year and a half. It took until June 23, 1961. In the meantime, in accordance with the final act of the conference, interim meetings were held in Washington among the twelve governments concerned. Finally, when the treaty came into force, and in accordance with its provisions, the first consultative meeting under the treaty was held in Canberra in July 1961; a second consultative meeting was held in Buenos Aires in the summer of 1962. At consultative meetings, countries discuss their problems in the Antarctic and propose draft recommendations which are considered by the other representatives; if approved, they become part of the final act of the consultative meeting. The final act is then sent back to Washington and to Wellington and to all the other capitals where it is approved. The recommendations therein became a part of the body of, I hesitate to say it, almost the body of law regarding the Antarctic. Recommendations resulting from consultative meetings have been approved on the following subjects: scientific cooperation; exchange of information; logistics -- how one country can help another? The question of conservation -- precipitated I must say in large part by the activities of SCAR--the Scientific Committee on Antarctic Research which was established in February 1958 in order to carry on the kind of international cooperation after the close of the IGY; preservation of historic sites; mutual help in case of emergency -- we had some very dramatic cases of emergencies in the Antarctic. For example, a Soviet scientist at the Byrd Station got quite ill and we finally flew him to McMurdo from Byrd Station and on to a hospital in Wellington. The Soviet Government was of course very grateful and we were very happy to be able to do this. But we are not too anxious to have lots of recommendations on the subject of aid to one another during that time of emergency because we feel it is a sort of unwritten law in the Antarctic and has been for generations. You'll remember, if you've read something about Shackleton back in the earlier part of the century when I've forgotten, it seems to me it was down in the Highland area, he had a group of men who were stranded on the ice and his boats had been cracked up and there was only one boat that was free and he went all the way around to the Palmer Peninsula and all the way back to Latin America and came back and saved every single man aboard that ship; But the distribution of mail--you can get into very difficult questions in the Antarctic on the question of mail, because people like to say that their post office is representative of active sovereignty or something; the exchange of information on nuclear power plants -- we have a power plant at McMurdo which operates roughly 47% of the year, and it is operating so well that it is almost at the point that the Navy is happy with the Martin

contract. It is a remarkable plant and when you get to McMurdo you will hear an announcement over the radio speaker: "We are now going on nuclear power. Your rooms will be heated with neutrons"; shipments of specimens and instruments -- the question has arisen as to why the customs people take so long to process these items; telecommunications -- during the IGY at McMurdo the U.S. had an international data gathering center where representatives of several countries -- scientists, meteorologists -- gathered and ~~collected~~ all of the information from all the stations by radio and said, "O.K. It's all right to fly to Mirnyy today. O.K. It's not all right to fly to Byrd today. All right, the weather is reasonably clear over the USSR station here. All right, you can fly on the Palmer Peninsula area today." It is extremely vital in the Antarctic to have the latest and most accurate information on meteorology that you can hope for. In fact, it is so important that we even have a vessel which is right halfway between New Zealand and the Antarctic which radios the weather as is seen from the vessel and serves as a beacon for pilots flying into McMurdo. That is a good ten hour flight in there, by the way. And I would advise you to have a little rest before you take that one, but it is extremely comfortable too. So these are the Subjects of Recommendations passed at consultation meetings. But these consultation meetings also will act as a very live and very important forum for the resolving of any kind of an international dispute which could possibly arise over the question of claims, jurisdiction, or discovery of minerals.

It is important to consider these consultative meetings as a forum for the resolving of any dispute among those countries involved in the Antarctic.

I think I would want to close by only saying that this Treaty is a great instrument for peace; that you are engaged in what seems to me to be an opportunity through Article VII of the Treaty for furthering the understanding among our countries; and that your efforts to dispel any possible suspicion of anything being done in the Antarctic in contradiction to the Treaty will only help to further international understanding in the area.

Thank you very much.