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FIRST COMMITTEE
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Chairman: Mr. MATSCH (Austria)

Question of French nuclear tests in the Sahara (continued)

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AGENDA ITEM 68

QUESTION OF FRENCH NUCLEAR TESTS IN THE SAHARA (A/4183) (continued)

The CHAIRMAN: I should like to draw the attention of the Committee to the twenty-Power draft resolution (A/C.1/L.238) which has been circulated. I am informed that the French and Russian texts of this document will be available shortly.

I now call upon the representative of Morocco, who wishes to speak in exercise of his right of reply.

Mr. BENHIMA (Morocco) (interpretation from French): I shall endeavour to be brief, because what I wish to say does not relate so much to the substance of the question, to which my delegation will revert subsequently.

In my speech yesterday morning I acknowledged the limitations of my scientific knowledge but I specified that I was referring to studies that were unquestionable and hitherto unquestioned, to indicate the risks and the dangers to which the peoples concerned would be exposed by the nuclear explosions. I cited certain works and gave the opinions of scientists who are recognized authorities.

In the portion of his speech prepared before he had heard me, Mr. Moch emphasized the difficulty of pleading a cause against "objections of an emotional and impassioned nature", when arguments based on reason and science and common sense were opposed to "statements based on hearsay, on beliefs or rash generalizations of scientific data erroneously taken out of context."

(A/C.1/PV.1043, page 16)

My statement was not based on passions, public rumours or fetishistic incantations. My arguments were based on juridical and political considerations, which cannot be disregarded without grave consequences, and also on scientific considerations supported by authoritative scientists including a number of Frenchmen.
I expressed my surprise and regret that the representative of France, who acknowledged the lack of passion in my speech and who very indulgently exaggerated my knowledge of the French language -- since that merit belongs to his country alone -- qualified my explanations as "scientific data erroneously taken out of context", thus seeking to question the intellectual probity which the culture of my country demands and which my Government requires of all its representatives.

As for the scientific data mentioned by the representative of France, I will say that I agree with him when he assures us as to the maximum security measures within the proving grounds and the evacuation and movement control measures during and immediately after the explosion. But he did not reassure us -- since that would be difficult -- about the long-term consequences of radioactive fall-out, the radioactive effects of the explosion. There are still men, women and children in Japan who are dying as a result of the first explosions, and Mr. Moch is surely not unaware of the remarkable studies carried out by the great French geneticist, Mr. Philippe Lhéritier, concerning the effects of radioactivity on heredity.
The representative of France put forward with serenity, sometimes with emotion, his conviction that he was defending a defensible cause, and he said that, if he had been convinced that there was any risk or danger in the wake of the planned explosion, he would not have come here to present the point of view of his country and to defend his thesis, all the more so since he was the father of a son, himself an atomic scientist, who had lost his life in the last war. During the 150 years of French presence, Africa did not have the privilege of having atomic scientists among her sons. But she did, during that period, give many of her children for France's liberty, and today Africa has the right to defend her own liberty and her own future.

At another point in his speech, Mr. Moch quoted a sentence by Jaurès. All of us are aware of the values attached to the life of this great French statesman, humanist and democratic leader, who made the greatest sacrifice -- the sacrifice of his life -- in opposing war, albeit non-atomic war. If Jaurès said that one must seek out the truth and say it, all of it, I am sure that if he had lived in the atomic era he would indeed have told the truth -- all of the truth -- and he would have opposed this proposed test explosion.

The representative of France said, I believe, at another point in his speech -- and, if I am mistaken, I hope he will correct me -- that it was unworthy of a chief of government, a high official or representative of one's country, to let himself be led into error by considerations of emotion or passion in putting forth in international bodies theses which presumably he knew, in his heart of hearts, not to be reasonable. Of course, there is a margin of error in interpreting the thought of Mr. Moch, and I do not wish to quote his statements in a spirit of bitterness. He knows my temperament, he knows that our Governments are responsible and that we are fully cognizant of the responsibility we bear before public opinion and the people. If we assumed the burden of putting forth this thesis before an international body, it was done with full knowledge and conscientiously. And, even if we are led to some extent by public opinion, that is a sign of democracy, and it is so both in the East and in the West.
Mr. COOPER (Liberia): It was with a deep sigh of relief that the world learned the intentions of the three nuclear Powers to suspend the testing of nuclear weapons while the discussions among them continue and there is possibility of reaching agreement on the suspension of such tests. It is gratifying that since the inauguration of such discussions there has been no further testing of nuclear weapons.

In our discussion of general and complete disarmament, almost every representative who spoke referred to the prospect of a general agreement on nuclear tests as a hopeful sign in connexion with general and complete disarmament. It was therefore gratifying to learn from the three nuclear Powers in Geneva that the preamble of a treaty had been agreed on and that seventeen articles had been accepted.

It is therefore regrettable that, despite such achievements, the world is likely to have its hopes dashed or frustrated if France insists on carrying out nuclear tests not only in the Sahara, but anywhere else in the world. It matters not whether the bomb to be exploded is a small one or a big one, whether it is an atomic bomb or a hydrogen bomb, for the explosion of any nuclear bomb would be likely to open the floodgates to the wholesale testing of nuclear weapons. It must be borne in mind that there are other countries which have the know-how and are in the position to test nuclear weapons but have not done so, I believe, owing to the success of the Geneva talks.

In this regard, permit me to quote an extract from a pamphlet entitled Unmeasured Hazards:

"Opposition to the prohibition of tests is also coming from Governments which aspire to possess hydrogen weapons but have not yet developed them. Their attitude might change after they have successfully developed their own weapons. Clearly, however, if any agreement has to be postponed until all Governments that desire to do so have developed hydrogen bombs, irreparable damage may already have been done by the time the prohibition is agreed, and in particular the intercontinental rocket missile with hydrogen-bomb warhead may have already been developed."
"Furthermore, in general, the greater the number of nations that possess such weapons the greater is the peril of their use by some group of irresponsibles in the Government of some country."

We have listened particularly and eagerly for some words of hope from the representative of France, in our discussion on general and complete disarmament, with regard to the suspension of tests. But no such words have been forthcoming. What puzzled my delegation and, I suppose, many other delegations was the fact that, despite the many appeals and protests not only from African States but from countries far removed from the Sahara, and despite the horror with which the world views the continuation of such tests, France shows no desire or willingness to stop the preparation of the proposed tests in the Sahara.

Some have attributed France's intentions to prestige -- that is, her desire to be classified as a nuclear Power. But the world had admired France not so much for her military prowess but for her culture, her arts, her science and the love of liberty which she has defended resolutely and gallantly in two World Wars. We were therefore touched when, in Mr. Moch's statement on general and complete disarmament, he referred to those sacrifices in such moving terms when he said:
"Every French statesman has lived through at least one world war, often both of them. The oldest ones were brought up with the memory of a yet earlier conflict and of the amputation of two ardently French provinces which lasted for forty-seven years. No one has forgotten the frightful balance sheet of the two world wars: out of 20 million adults, more than 2 million who disappeared on the battlefields or in the concentration camps, and ruins from the two conflagrations which were equivalent to many years of the national product, of the cumulative work of all the French people." (A/C. /PV.1030, page 31)

Is France's intention or the testing of nuclear weapons to be considered as a measure of defence which would act as a deterrent to any potential aggressor? I think in a nuclear war there is no deterrent -- man has discovered a monster against which he has no defence. It was once asked by one of the leading scientists, who was responsible in the formation and explosion of the hydrogen bomb, whether there was any deterrent against such weapons. His reply was, "Yes, the only deterrent is peace." If peace is the only deterrent or repellent means to nuclear weapons, it therefore follows that in the nuclear war which will engulf the whole world the nuclear Powers, as well as the non-nuclear Powers, will suffer the same fate -- annihilation.

The African States, in particular, have asked for the inscription of this item on the agenda not as an embarrassment to France but rather as a further appeal not only on behalf of Africa, but for mankind in general. The African States have shown by their direct appeal to France for the suspension of these tests that they harbour nothing sinister or spiteful but solely from the fear and horror with which the African people regard the testing of such weapons in any part of Africa. The independent States meeting in Accra and in Monrovia have made known their fears and anxiety to France in this regard. It was hoped that France, in view of such strong protests not only from the African States, but Africans living under a foreign rule, as well as the deep concern of the people of the world, would pay heed to these appeals and protests. The only assurances we have received so far have been that the bombs will not be large ones, that radiation fall-out would not be great, and the site selected for such tests would be far removed from inhabited areas.
If prestige is involved, what assurance have we that the explosion of an atomic bomb in the Sahara would not lead to a wholesale test of nuclear weapons in that region. Until the three Powers meeting in Geneva decided to suspend nuclear tests, there was a whole series of such tests to produce bigger and more powerful bombs. What guarantee have we that France will not continue testing nuclear weapons until she has caught up or reached parity with other nuclear Powers?

We have no control over the forces of nature, and no one can guarantee what will be the results of such tests. Permit me to quote in this regard an extract published by the World Federation of Scientific Workers:

"To continue test explosions of nuclear weapons is to assume a very heavy responsibility since we have inadequate knowledge of the results and no one can guarantee that they are not serious. On the contrary, everything we know lead us to think that we are nearer than we thought to the limit of the number of test explosions about which the danger will be manifested."

We know in the testing of nuclear weapons on Bikini that despite the precautions taken:

"Catastrophe overwhelmed the crew of the little Japanese fishing boat Faukuryu Maru, that over 300 Marshall Islanders and military personnel on Rongelap Atoll and other atolls up to 250 miles from Bikini were seriously injured."

In view of this statement coming from scientists of the world, how can the Foreign Minister of France, Mr. Couve de Murville, justify his statement:

"At least some of the African countries have expressed their fears of the possibility of radioactive fall-out upon their territories. We are prepared to give them every useful explanation on this subject. The precautions that will be taken will absolutely eliminate all risks whatever they may be." (A/PV.814, page 42)

In further rebuttal of the statement of the Foreign Minister of France, I should like to quote the following from Unmeasured Hazards:
"Genetic effects are not easily understood. Therefore it is particularly important that governments should be honest in their statements about them. Any government which opposes a general cessation of such tests would, if it were honest, say something like this:

'The test explosions which we intend to carry out will be responsible in the future for a number of miscarriages and still births, and for the birth of a number of mentally or physically defective children in all parts of the world. We do not know, to a factor of 100, how many such cases there will be, although we have good reasons for believing that the number will not be so great as seriously to affect the capacity of the human species to reproduce itself. Nevertheless we believe the tests to be necessary for the following reasons...''

The people of Africa owe much to France for, despite the hardships of colonial rule, she has brought to many parts of that continent art, culture, science and industrial revolution such as railways, shipping, as well as health and economic reform which have, in a great way, contributed to the health of the African and a relief to his poverty. He has been encouraged to pursue his health and happiness under more improved conditions. For this he has been grateful and as a testimony of such gratitude he has readily and willingly responded to the call of France in her dire need and struggle for her very existence. He has stood side by side with her in the defence of liberties unknown to him and for a cause far removed from him and which he did not understand. Is it therefore too much to ask France not to inflict upon him the terrors of an unknown thing?

We are still in the initial stages of discovering the effects of radioactivity and the amount and spread of fall-out from a nuclear test. It is contended that the spread of radioactive dust depends on the type of bomb exploded and also upon the height from which it was exploded, but they all agree:

"In addition to the risks of exposure to radioactive dust in fall-out areas, there is the danger that human beings, thousands of miles from a test explosion, may swallow radioactive substances in food or drink and the
radioactive elements may be incorporated into the body as discussed already. After the test explosions at Bikini, fish caught over a wide area in the Pacific up to 1,500 miles from the test area were found to be heavily contaminated. On several occasions during the Spring of 1954 higher levels of radioactivity were recorded in rain falling in Japan. Later it was found in various parts of Japan that vegetables and milk were also contaminated."

This is a very gruesome picture. It would be saying that any test in any part of Africa, despite the pledges given by the French, would likely have the same results as obtained in Japan. Furthermore, the place selected for such tests is the Sahara where at certain periods there is a strong wind, with dust, that is felt over the whole of the continent. We ourselves, in my country, which is far removed from the Sahara, have come to know about such winds which we call the Harmattan Winds. Can France guarantee that there will be no such wind or could she direct the course of such wind in case of a nuclear test in that part of the world? Scientists have discovered that some radioactive elements decay quickly while others continue to emit ionizing radiation for many months or even years.
If one could calculate the exact dose received by human beings in the open air, the actual dose might be reduced considerably, according to the World Federation of Scientific Workers, when account is taken of the time spent indoors. In European countries, where the population spends a large fraction of its time inside substantial brick or stone houses, the walls of these houses provide protection from external radiation. In the tropics and in many Eastern countries, the walls of dwelling places are much thinner and may provide very little protection.

Since the discovery and explosion of nuclear weapons, there has been a widespread demand for the ending of the tests and, according to the Scientific Workers:

"Some governments may oppose this demand but there is no doubt that it effects a response in the hearts of all countries. In the words of Prime Minister Nehru, speaking in New Delhi on the 29th of March 1954, 'man is unleashing forces which are completely beyond his control. It almost looks like the creation of a Frankenstein, the explosion of a hydrogen bomb which affected the waters of the oceans and the animals living in them, while no one knew whether it was safe to eat fish at all. It is a problem of vital concern to humanity and not merely to this power bloc or that.'" This concern has not only been shared by the countries of the East, but by the whole world in general.

France may contend that the Sahara is only land of desolation. This might be so for the moment, but through man's ingenuity vast areas of desolation and waste have been turned into fruitful lands where the harvests have been plentiful and hunger has been averted. We also know that there is a possibility, which France on its own initiative has found through experiments, that in the Sahara there is oil to be found. The representative of Morocco has given us a graphic picture of the Sahara and the possibilities of life being sustained in that area. It would, therefore, be useless to argue that a nuclear bomb of the size used on Hiroshima or even smaller would not be a threat to people living in and around the Sahara desert. In the words of Mr. Jules Moch, in the general debate on disarmament,

"only a few pounds of nuclear matter would destroy millions of beings and would prohibit all life within thousands of square miles." (A/C.1/PV.1030, p.31)
We fail to understand how this statement of Mr. Moch coincides with that of the French Foreign Minister that:

"The precautions that will be taken will absolutely eliminate all risks, whatever they may be." (A/PV.614, p.42)

I should like to close this discussion in the words issued by the Federation of Scientific Workers, which are as follows:

"The choice then is clear: on the one hand there is the risk of increasing suffering and death for many generations over the whole world; on the other, the possibility of ending this danger by concluding an agreement to cease from further test explosions. This latter course would at the same time encourage the development of an atmosphere of mutual confidence in which the Powers concerned could more easily make further advances along the road to controlled disarmament."

My delegation reserves its right to speak, if necessary, following this debate.

Mr. ORMSBY-GORE (United Kingdom): There was a particular passage in the speech of the representative of Morocco when he introduced the subject now under discussion which I regard as significant. He said:

"For reasons which my delegation does not have to emphasize, France has not found itself in the same position as certain other States in the field of atomic weapons. Atomic power has become in this new hierarchy of values a new criterion of authority in international affairs. Does France consider that it must catch up in order to strengthen its position? We do not see any objection to that." (A/C.1/PV.1043, p.13)

This passage from the opening speech in our debate made it clear that in putting this item on the agenda, the Moroccan intention was that the discussion would be confined to the specific question of the effect in the Sahara itself and in the surrounding countries of an atomic test. This confirmed the impression I had previously obtained from reading the explanatory memorandum submitted by the Moroccan delegation last August, which is contained in Document A/183.
This particular and definite question is certainly worthy of our serious consideration. If there might be damage to the health of peoples living in and around the Sahara, it would indeed be of concern to us. The United Kingdom has a very special interest in ensuring that no action which is contemplated could do harm to those peoples living in Africa who have not yet attained independence and for whose welfare my Government has a special responsibility. We have taken every step on their account as well as that of other nations to satisfy ourselves that the measures to be taken by France will ensure the safety of all concerned.

At the beginning of his first speech to the Committee, the representative of Morocco made the following remark:

"I would refer to serious studies and irrefutable evidence establishing the certainty and the reality of the danger and the nature of the harmful effects to which the African populations would be exposed." (Ibid., p. 4)

The Moroccan representative speaks of the certainty and the reality of the danger. These are very categorical terms to use, and I should therefore like to devote a few minutes to considering how serious the threat to human health might really be from a French atomic test conducted in the Sahara in the neighbourhood of Reggane.

But before I do this, there is one point which I would like to clear up. From some of the statements that have been made, it has struck me that there may be some confusion in the minds of certain members of the Committee as to what it is the French intend to explode. Mr. Moch has made it clear that the French experiments will be concerned with what is commonly called an atomic or A-bomb.

Great as is the force of such a weapon, it is a mere fraction of the force of a thermonuclear weapon, commonly called an H-bomb. An H-bomb is something that projects a large quantity of radioactive matter high into the stratosphere. We are not concerned with that here. We are dealing with an A-bomb. This makes a profound difference.
As the Committee is aware, my country has conducted a number of nuclear weapon tests at Maralinga in Australia. We can therefore furnish some information which will perhaps help to put the extent of any danger there may be into proper perspective.

I should perhaps begin by reminding the Committee that the nearest Australian town to the Maralinga testing site is at a distance of only sixty-two miles. We have heard Mr. Moch tell us how the nearest centre of population to the French test site, and that a small oasis, is at about the same distance as Las Vegas from the Nevada testing site -- that is, just short of seventy-five miles. This question of distance is one of considerable significance because, as I shall shortly show, the amount of radioactivity decreases sharply as the distance from the point of explosion increases.
When the nuclear device is exploded, a quantity of radioactive debris is produced. This debris assumes the shape of a gigantic mushroom, with which we are all so familiar from the many published photographs of nuclear explosions. Most of the radioactivity resides in microscopic particles of dust, which comprise the dome of the mushroom -- the so-called mushroom cloud. The balance of the radioactivity resides in the heavier debris forming the stem of the mushroom. I intend in the course of my remarks to say something about what subsequently happens to these two parts of the mushroom. But before I do so I wish to emphasize to the Committee the speed at which all the radioactivity from a nuclear explosion, that is to say, the radioactivity both in the stem and in the dome of the mushroom, decreases.

As the result of measurements made by our own scientists, we know that if the radioactivity one hour after an explosion is given the nominal value of 1,000, then within seven hours it has fallen to a value of 100; that is to say, it has already decreased to one-tenth of its earlier value. After two days it has gone down to a figure of 10; that is already one one-hundredth of what it was an hour after the explosion, and after two weeks the figure is down to one-thousandth of the activity an hour after the explosion.

I would now ask the Committee to bear with me while I examine the genesis and the subsequent course of the two parts of the mushroom. First, what I have called the stem.

When the explosion takes place there is a strong up-rush of intensely hot gases which draw up a quantity of sand, stones, and similar material from the surface of the earth beneath the explosion. This material becomes highly radioactive, but being relatively coarse and heavy, in comparison with the microscopic dust in the cloud itself, it falls back to the ground almost at once within a few miles of the point of detonation. Its radioactivity decays just as quickly as that of the cloud. It has been found at Maralinga that this material travels only a very short distance indeed. For instance, at the living quarters which are less than twenty miles from the Maralinga test site, there has not been enough measured radioactivity to call for any precautionary measures, notwithstanding strong dirt-laden surface winds in that area of the world. This strikes me as an extremely significant scientific fact.
The Committee will be aware, for Mr. Moch has reminded us of the fact, that in the Sahara there blows for a part of the year the Hermattan wind. This is a low-level thermal wind blowing in a westward direction from October to January. This is a very important point for my Government because, as the Committee will realize, any westward wind over the Sahara blows in the direction of territories for whose safety and welfare we are at present responsible. And I am thinking in particular of Nigeria. In a year's time we look forward to welcoming Nigeria as an independent member of the United Nations. But at the moment it is up to us, the United Kingdom, to satisfy ourselves that no danger can come to the peoples of Nigeria as a result of a French atomic test in the Sahara.

The nearest Nigerian territory to Regan is at a distance of about 900 miles. That is why I have laid great stress on the fact that the radioactive material from the so-called stem produced in a nuclear explosion is deposited on the ground quite near the point of explosion. I would like therefore to repeat the figure which I quoted earlier of the distance from the Maralinga test site in Australia to the nearest Australian town: it is 62 miles. Thus we have this very striking comparison between 62 miles and 900 miles. And, of course, whenever we ourselves have conducted an experiment at Maralinga we have always had to satisfy -- and have most willingly satisfied -- the competent Australian authorities that no risk was involved for the people living in the area.

I shall turn now to the behaviour of the dome of the mushroom, better known as the mushroom cloud. The height to which this cloud rises depends upon the course of the explosion; broadly speaking, the greater the explosion, the higher the cloud rises. In the case of an explosion of the size which Mr. Moch has indicated to the Committee, the mushroom cloud would rise to a height of 20,000 feet to 30,000 feet. This height is important, because over the Sahara, winds at this height blow eastwards across the Sahara all the year round except for a period between June and August or September.

Our experience in Australia has been that aircraft given the task of following the cloud and equipped with the most sensitive apparatus for detecting radioactivity, have usually "lost" the cloud in a matter of four to ten hours after the explosion -- so dispersed has become its radioactivity. By this time the cloud has been carried a distance of from 100 miles to 400 miles from the site of the explosion.
The very fine particles carrying the radioactivity in the cloud drift slowly down to earth, their radioactivity decreasing all the time at the rate I have already mentioned. Eventually, these decaying radioactive particles reach the ground as fall-out. They do, of course, add to the natural radioactivity there, to which man has been subject from time immemorial, but the question is, how much. This radioactivity is measured in units called milliroentgens. Over the surface of the world, excepting in a few areas where natural radioactivity is unusually high, such as Kerala in India, man normally receives a "dose" of 100 units to 150 units per year.

Now, let us consider what happens at a place down wind of a nuclear explosion, that is, at a place which is in the direction where the fall-out from an atomic cloud is likely to be the most concentrated.
At a place 900 miles down wind -- though in fact, of course, Nigeria is not "down wind" of Regenelle -- a man would receive from the fall-out originating from an explosion such as I have taken as my example a total additional dose of radiation of about eight units. Of these eight units, two would be received in the first year and the remainder in diminishing amounts over the rest of his life; that is, in the year after the explosion an addition of two units to a normal background dose from nature of between 100 and 150 units. These figures have to be set against the fact that the accepted safe dose of radioactivity for the general population, including the most sensitive members such as young and unborn children, is 500 units per person per year.

I have gone into this scientific data at some length because I believe that it is incumbent on us, as a Power that has tested nuclear weapons, to make available to the Committee information, which my colleagues will find convincing, that a French atomic test of the magnitude described by Mr. Moch conducted in the Sahara will not be endangering the health and safety of the peoples of Africa, still less of those living further away.

I have thought it right at an early stage in the debate to make available to the Committee my country's view based upon the best scientific advice available to us and upon a considerable degree of experience in this field. I have confined myself to the technical aspects of the matter, and I would like to reserve my country's right to speak again if necessary later in the debate.

The representative of France yesterday dwelt upon the considerable additional knowledge which we could all derive from the experience of the United States of America in carrying out their tests in Nevada, many details of which they have made public. Again we know that the Soviet Union has carried out many tests in quite close proximity to large centres of population. We can all assume, of course, that the Soviet Government would not dream of carrying out such experiments if they entailed grave dangers and risks to the Soviet people. I have no doubt, therefore, that the Soviet representative will be eager to tell the Committee that from their own experience they can say categorically that they have not been endangering the lives of their citizens, and this in itself will reassure those countries in Africa and elsewhere who have expressed concern about the French tests.
The whole subject of nuclear science is not easy for the normal layman to follow, and we are keenly aware of the very real anxiety that exists in the minds of many of our friends. It is our duty here to discover the true facts for our peoples and to approach these matters in a responsible and rational manner. As I have indicated, we in the United Kingdom have acquired much expert knowledge in this field, and I felt that it was only right to let my colleagues have the fruits of that knowledge in language as plain as I can make it and without bias. That has been the limited task I have set myself this morning.

The CHAIRMAN: Before calling upon the next speaker, I should like to consult the Committee about the meeting this afternoon. It is scheduled to be held after the plenary meeting, which is expected to end about 4 p.m. At the moment, however, we have no speakers for this afternoon. Unless some member indicates now his wish to speak this afternoon, I shall be obliged to cancel that meeting. Does any representative wish to speak then?

There seems to be no representative ready to speak. Therefore, the meeting for this afternoon is cancelled.

It was so decided.

Mr. QUAIASON-SACKEY (Ghana): Before proceeding with the development of my delegation's position in this debate, I would like to emphasize one point which may have been overlooked in our discussions on this item.

Before placing the question of French nuclear tests in the Sahara before this Assembly, the African countries and the African peoples, conscious of the proper usages among nations, first of all approached the Government of France directly and expressed their alarm and anxiety at the intention of the French Government to conduct nuclear tests in the Sahara. It is a matter of distress to us who live in Africa that the French Government scornfully disregarded our genuine anxiety over their proposed test. If France had respected our apprehensions at the prospect of nuclear tests in the Sahara, this debate would not have been necessary.
My delegation wishes to assure this Committee that this question has been brought to this Assembly not to embarrass France but merely to place our anxieties before the world's court of last resort. We hope that our deliberations here will help to influence and persuade the Government of France to reconsider a course of action which cannot but create misunderstanding between it and the peoples of Africa.

In this debate, an attempt has been made to reduce the issue of nuclear tests in the Sahara to one of a test of sovereignty over a territory on which this experiment is to be conducted. As far as my delegation is concerned, our main concern with the question of French nuclear tests in the Sahara is not one of French sovereignty over the Sahara region. At the very best, this is a debatable point. We in Africa maintain that alleged French sovereignty over the Sahara is a result of imperialism and cannot be accepted without considerable reservations. In any case, the whole issue of French sovereignty in the Sahara is today being debated on the field of battle between the armies of France and the forces of the Provisional Government of the Algerian Republic. Consequently, this question of sovereignty is not very relevant to the real issues which have motivated my delegation in participating in this debate. There is little doubt that the broadcasting of the by-products of nuclear explosions presents a real threat to the very future of the human species.

In his eloquent and persuasive statement yesterday, the representative of France, Jules Moch, marshalled an avalanche of figures to persuade us that the effect of French nuclear tests in the Sahara would be very marginal and indeed negligible. His whole thesis flowed from the premise that the radiation effects of all nuclear tests since the end of the war is much less than the radiation which is naturally absorbed by the human body from cosmic, terrestrial and artificial sources. He further developed a very plausible argument with reference to prevailing winds and their angular deflections to suggest that, in fact the bomb which is to be dropped in the Sahara will have much less effect in the radiation content of the atmosphere in that area than has been the case of test sites in the United States, Australia and in the Soviet Union.
British and French empires which are progressing towards independence, it is our very fervent desire that, regrettable as this is and with the hopes that it will be abandoned, especially in view of the circumstances I shall later mention, this will not become an issue between white and non-white, between Africa and France, or introduce questions of a different character. Le Monde stated:

"In some months perhaps, one bomb will be exploded in French silence. It depends upon us" — that is, Frenchmen — "to stop it. Because one has chosen an African desert for this explosion, shall we be slow? Shall we leave only the unquiet voice of Africa to raise a protest, in the middle of the suspicious silence of the big atomic proprietors? Explosion without danger of contamination ... precautions taken ... negligible risks ... We are being reassured. That which reassures us above all is that these atomic tests are to take place near Temanrasset rather than near Dunkirk. The great France a little polluted towards its south, Europe a little dirtied from the direction of Africa, who should be disquieted by this?

"Fourteen years ago, the bomb which we manufacture today 'for the prestige and the defence of the community' (speech of General de Gaulle) hit Hiroshima and then Nagasaki. In some seconds 300,000 died, men, women and children. They were yellow in colour it is true. We should thank Japan."

Those are not our statements. The article ends:

"If France carries out the tests that have been announced, she will only be speaking for herself, a mediocre atomic Power of the fourth order, detested by Africa, and responsible, exactly with the same rights as the three others, for the poisoning of the skies, the earth, the sands and the seas. France will be no more nor less than the victim of an improbable atomic conflict where there will be none other than victims, and France will simply be a non-innocent victim.

"The day when the blinding flash of Hiroshima exploded over Japanese soil, let us remember our horror, our anguish, and later, when we understood it, our shame. The day France becomes, by her first explosion, an atomic Power, we will become at that instant, if we do not agitate now, the accomplices of Hiroshima."
These comments with regard to Hiroshima and France are not ours. There are two other aspects in the argument put forward by the representative of France to which my delegation wants to apply its mind. First of all, why does France want this test? The main argument, put forward by the President of the French Republic, is that of non-discrimination in terms of prestige, and this perhaps has been overstated by the Moroccan delegation. What did Mr. Moch say? Mr. Moch is respected in this Assembly and would not be expected to give any support to the idea that arguments of this character should be enlisted in support of the promotion of weapon of mass destruction. Mr. Moch stated:

"We do not accept any indirect discrimination. We do not accept any tacit monopoly. Our precise, permanent and fundamental objective is nuclear disarmament for all, for that alone will bring about the full equality of peoples. If the fact that France is the fourth State to liberate the explosive energy of the nucleus of the atom -- if this fact should cause the other three Powers to turn towards the necessary and urgent elimination of nuclear weapons, then the present efforts of France and the research of its scientists would, without fear of the verdict of history, have served the cause of peace." (A/C.1/PV.1043, page 51)

That is one approach to it; the other approach of Mr. Moch is as follows:

"So long as there remains the agonizing insecurity of a world dedicated, as it is, and despite ourselves, to the arms race, each State has the right -- and each Government the duty -- to ensure the protection of its country, France as well as all others." (Ibid, page 46)

He went on:

"During nearly ten years we have been faithful to that declaration, hoping thus to set an example which, alas, has not been followed. Ought we, in the insecure world of today, to remain without modern weapons?" (Ibid)

Without any disrespect, I should like to apply myself to that paragraph. I am sure that Mr. Moch did not mean what is implied by his statement. The first part of it is an appeal and a sanction to all the Powers of the world to become nuclear and thermonuclear Powers, because he states that each
But equally competent scientists, who are as learned as doctors and professors of France, have provided equally convincing evidence that, indeed, the effects of radiation emanating from nuclear explosions are greater and more dangerous than Mr. Moch's persuasive arguments would suggest. I do not wish to burden the Committee with detailed facts and figures, but I would take this opportunity to suggest a few sources of evidence which support a case diametrically opposed to the arguments developed by the representative of France.

I would, first of all, refer the Committee to the report of the United Nations Scientific Committee on the Effects of Atomic Radiation. The fifteen eminent scientists from many parts of the world have drawn conclusions which are, rightly, very much more cautious and less optimistic than the opinion of the French scientists on whose authority Mr. Moch based his statement yesterday. The conclusions of the United Nations Scientific Committee on the effects of radiations on man are particularly relevant. They indicate that man may prove to be unusually vulnerable to ionizing radiations, including continuous exposure and low levels, on account of his known sensitivity to radiation, his long life, and the long interval between conception and the end of the period of reproduction.

Present knowledge concerning long-term effects and their correlation with the amount of radiation received does not permit an evaluation with any precision of the possible consequence to man of exposure to low radiation levels. Many effects of irradiation are delayed; often they cannot be distinguished from effects of other agents; many will only develop once a threshold dose has been exceeded; some may be cumulative and others not; and individuals in large populations or particular groups, such as children and foetuses may have special sensitivity.

These facts render it very difficult to accumulate reliable information about the correlation between small doses and their effects either on individuals or on large populations. Even a slow rise in the environmental radioactivity in the world, whether from weapons tests or any other sources, might eventually cause appreciable damage to large populations before it could be definitely identified as due to irradiation.
Appearance and elimination of adverse genetic effects would be very slow, and as the radioactive contamination accumulated, it might so act as to increase the likelihood of somatic injury in individuals due to the additional exposure. Such a situation requires that mankind proceed with great caution in view of a possible under-estimation.

The Committee concludes that all steps designed to minimize irradiation of human populations will act to the benefit of human health. Such steps include the avoidance of unnecessary exposure resulting from medical, industrial and other procedures for peaceful uses on the one hand, and the cessation of contamination of the environment by explosions of nuclear weapons on the other.

The report of the Scientific Committee of the United Nations makes quite clear, beyond any doubt, the kind of serious threat that is involved in fall-out from nuclear explosions, and I would emphasize this conclusion from the report:

"Even the smallest amounts of radiation are liable to cause deleterious genetic, and perhaps also somatic effects." (A/3838, page 41)

In other words, the attempt of the French Government to justify their intention to explode a bomb in the Sahara by minimizing the scientific effects are very debatable and are not borne out by other independent and uncommitted investigations. In April 1958, Dr. Linus Pauling gave figures of casualties that might be expected from radioactive carbon 14, another product of nuclear explosions. At that time these figures were vigorously contested but, subsequently, a publication of the Atomic Energy Commission conceded substantial agreement with Dr. Pauling. In April 1957, Dr. Albert Schweitzer, in a "Declaration of Conscience" issued under the auspices of the Nobel Prize Committee, said in part:

"We are forced to regard every increase in the existing danger through further creation of radioactive elements by atom bomb explosions as a catastrophe for the human race, a catastrophe that must be prevented ... We are committing a folly in thoughtlessness ... we must muster the insight, the seriousness and the course to leave folly and to face reality."
Again, in May 1958, Dr. Schweitzer issued a second statement, which was reprinted in full by an American paper The Saturday Review, in which he said, among other things:

"We must not regard our responsibility to guard against the possibility that thousands of children may be born with the most serious mental and physical defects. There will be no excuse for us to say later that we were unaware of that possibility. Only those who have never been present at the birth of a deformed baby, never witnessed the whimpering cries of its mother, should dare to maintain that the risk of nuclear testing is a small one ... There is no time to lose. New tests must not be allowed to increase the already existing danger ..."

On balance, the argument of the representative of France, in plain and simple language, is that the atmosphere is being poisoned, but the poison is in small doses. The additional poison to be injected into the atmosphere by the French test is so small that in fact, we, the people who are absorbing this poison, need not worry about it, but should gladly absorb it. Now may I be permitted to suggest that, for the victim, this argument is not convincing. To us in Africa the question is not the dosage of poison we are expected to absorb but that anybody should expect us to take poison at all. We may not have eminent scientists but we do have enough intelligence to realize what is good for us; and we know that the absorption of radioactive particles is certainly not good for us, no matter what the most optimist scientists would say.

I have already indicated convincingly that the evidence at best is not conclusive one way or the other. There is a very large area of serious doubt regarding the possible effects of artificial radiation. For instance, it is quite obvious that the genetic effects of radiation cannot be known here now and would only become manifest after, perhaps, a generation or two. The most that the eminent scientists can do is to venture a probable guess, but, where human lives are concerned even the best guess is too much of a gamble. It seems to my delegation that the weight of evidence, would suggest that where artificial radiation is concerned, sensible men should rather err on the side of caution than on the side of optimism.
The representative of France yesterday made reference to the ass who was reproached for cropping "a mouthful of grass"; but the irony is that the ass, were it to be cropping grass on the Sahara after the French nuclear explosion, will probably get itself a dose of radiation and will certainly be reproached by future generations of asses for being such a "big ass". I suppose the metaphor here is that France, who is supposed to be contributing so little to the pollution of the atmosphere, has been brought before this Assembly and that the nuclear Powers who have been responsible for most of the artificial radiation created since the war have got away scot-free. But I would like to point out that, in fact, world alarm at the dangers of nuclear fall-out has been so great that the three nuclear Powers themselves have been influenced to enter into negotiations towards the cessation of nuclear testing and that since 1958 these Powers have desisted from further tests.

At the thirteenth session of the General Assembly, a resolution was adopted urging the nuclear Powers to reach early agreement on the suspension of the testing of nuclear weapons and to refrain from undertaking further tests while the negotiations towards the banning of such tests are in progress.
At this very moment, these negotiations are proceeding and it is hoped that an agreement will be reached. Under these circumstances, it is incomprehensible to my delegation that the Government of the Republic of France should declare its intention of undertaking a nuclear test and, in particular, to conduct such a test in the Sahara. Such an action is bound to complicate the whole situation and to make the work which is proceeding at Geneva more difficult. It is unfortunate that Mr. Moch who was described here as the great "disarmist" during the debate on disarmament should have given such an invigorating speech on rearmament yesterday.

I would beg the Committee's indulgence in order to make a few more brief comments on the other parts of the French statement yesterday. Mr. Moch, in his interesting intervention, made the dramatic disclosure that since the proposed French tests would only add two-thousandths of one unit to the average of 150 units of the total radiations to which man is exposed, we should lay our fears to rest. But, what the French nuclear test will do to the world's average of radiations is not really the point. It is well-known that fallout is not uniformly introduced into the earth's atmosphere nor is it uniformly distributed. Furthermore, it does not fall to earth in a uniform way. Therefore, to pretend that the French blast would contribute as much fallout to Australia or the Cape of Good Hope as it would to, say, Morocco or the Mediterranean area, is really very difficult to accept. Furthermore, to lump together artificial and natural radiation and to draw conclusions from this is merely to confuse the issue.

It is true that individuals, for diagnostic reasons, may decide to undergo x-ray treatments or examination. In these cases, the benefits are balanced against the deleterious effects and, in any case, it is a purely voluntary choice. But to take radiation for medical purposes and to include it in the world's averages is to give the impression that all the world's peoples normally and involuntarily receive medical x-rays. This is a travesty of the truth. To include these extraneous figures would obviously minimize the effect which additional bomb explosions would have on the natural radiations to which the human race is subject.

Regarding the contention that the effect of the French bomb test, so far as radiation is concerned, is marginal and negligible in proportion to the effects of the total explosions that have been carried out to date is not significant and
may be misleading. It is generally agreed that any increase in radiation, no matter how small, represents an increase in human damage genetically and, perhaps, also somatically. The United Nations Scientific Committee's report categorically, points to this. Any attempt to give the impression that there is no danger from a small increase in radiation is, therefore, incorrect and must not be accepted by this Committee. It is also important to appreciate that while the average damage may be low, this is meaningless since some persons will show severe damage and others none at all.

Finally, the French statement that the major African population centres are almost twice as far removed from the proposed French test site as San Francisco and Los Angeles are from the Nevada proving grounds has very little, if any, significance in this debate. It is possible that winds in the Sahara will carry radioactive clouds in many unpredictable directions and that fallout will occur in areas which cannot be determined ahead of time. We can expect that the amount of fallout, whether it travels hundreds or thousands of miles, can only be determined in the months and years after the explosion actually takes place. In short, my delegation is not convinced at all by the persuasive arguments advanced by France yesterday and by the distinguished delegate from the United Kingdom today.

The Government of Ghana is deeply alarmed over the French Government's intention to use the Sahara as a test site since, as an African State bordering on the Sahara region and conscious of its responsibilities not only towards its own citizens but also towards the inhabitants of the African continent as a whole, it is convinced that this test will subject the population of the African continent to hazards, whose extent and effect cannot now be foretold. The prevailing winds which blow across the Sahara have a southerly direction and, as such, inevitably cover the area which my country, unfortunately, finds itself. Countries like Italy, which lies across the Mediterranean to the north of the bomb site, are concerned with the effects of the fallout which will be generated by such an explosion in the Sahara. It is, therefore, easy to understand the apprehension of my Government and all African Governments and dependent countries at the prospect of a French-generated nuclear fallout.
The French Government claims that enough safeguards will be adopted to protect the populations bordering on the test area from any undue danger. This is very generous, but we, in Africa, will feel much happier if the test is not conducted in Africa at all. If, however, France must explode its bomb, then it is quite welcome to do so somewhere in France itself. Surely they can intensify any safeguards they have against fallout. We, in Africa, refuse to be the guinea pigs of any great Power's ambitions. We have no interest in such ambitions, which we consider to be ephemeral and pointless to the great destiny of the human race.

The concern of the peoples of Africa at the prospect of French nuclear tests in the Sahara have been so spontaneous and immediate that I need not labour the point here. However, it would be useful to emphasize that all the African countries have protested vigorously against these tests in the Sahara individually through diplomatic channels and, collectively, at the Monrovia Conference of August, 1959.

Protests have also been voiced by the Non-Self-Governing Territories in Africa either through mass meetings or through those metropolitan Governments which are responsible for their welfare. In its diplomatic representations to France, my Government, among other things, expressed the hope that

"... the Government and the people of France will appreciate the horrors and terrible effects which nuclear explosions in the Sahara Desert will engender and that the Government of France should therefore, take heed of the appeal by the Government of Ghana and should refrain from any action which will bring misery and destruction to the African people".

My Government's Note appealed to France to refrain from these tests as an earnest of a positive French contribution towards eliminating the dangers inherent in the present competition in nuclear arms between the great Powers. Such a decision, my Government's Note continued, would serve to strengthen the bonds of friendship between the African peoples and the people of the French Republic. In making this appeal, my Government was confident of the full support of all African peoples including the people of the African territories which, at present, form part of the Franco-African community, who we know share the apprehensions of the other countries of Africa, even though they may not at present be able to give voice to their apprehensions.
But, as I pointed out, these protests are not confined only to the independent States of Africa. On 14 July 1959, the Federal Prime Minister of Nigeria, in a statement to the House of Representatives in Lagos, said that the people of Nigeria had the right to protest against the explosion of an atom bomb in the Sahara by the French Government. The Prime Minister recalled that the House of Representatives on 24 February 1959 had clearly expressed the general feeling in Nigeria towards such a test. The text of the resolution then debated was subsequently sent to the Secretary of State by the Governor-General with the request that the apprehension felt in Nigeria should be brought to the notice of the French Government. The Prime Minister was most unhappy to learn from Press reports and from news bulletins that the French Community at their meeting in Madagascar had proposed that the tests should proceed regardless of the Nigerian protest. He expressed the hope that the United Kingdom Government would renew their representation on the subject. So far, no reassuring reaction has been forthcoming from the Governments of France and of the United Kingdom.
After having carefully considered the statement of the representative of France, we cannot but conclude that this test is designed merely to make France a nuclear Power and to make it an equal partner in the councils of the great Powers.

If this were so, it would be a pathetic gesture, because the mere flexing of one's muscles does not attest to greatness. Real greatness lies in the world of today, not in the exhibition of the trappings of power. It resides in the exercise of the finer qualities of the human mind and of human ingenuity directed towards constructive ends, in which France itself has always excelled. France has already contributed a great deal to the advancement of human civilization and to the dignity of man, and we believe that this persistence in endangering the lives of millions of people who have nothing to do with the power of France will merely set France back in the estimation of Africa and the world.

Those days when the destiny of Africa was decided at conference tables outside Africa and by the unilateral actions of Powers whose main aim was the exploitation of the African are over. Any nation which does not recognize this fact has many surprises in store.

If French nuclear tests are essential at all, perhaps some of France's allies would kindly make available to it the testing grounds for atomic weapons. Better still, they would spare us a great deal of anxiety if they would give France the secrets of the bomb, if it must have them.

I shall now make a few observations regarding the draft resolution which has just been placed before the Committee and which is sponsored by Ghana together with nineteen other Powers.

The substance of this draft resolution has already been dealt with in general in the preceding parts of my statement. I have already indicated that the French intention to conduct nuclear tests in the Sahara will expose the populations in neighbouring territories to unpredictable hazards, and that this is causing great anxiety among the peoples of Africa. We regret particularly that the appeals to France by my Government and Governments of other African States and territories have been summarily disregarded.
The twenty-Power draft resolution reflects the anxieties of the peoples of the world regarding the dangers attendant on nuclear tests everywhere and reflects particularly at this time the concern of the African peoples at the prospect of atomic explosions in the Sahara.

The hopes of millions in Africa are centered on our deliberations on this question which is of such vital importance to them. We cannot fail them merely to appease the ambitions of one Power. We in this Committee, whether we like it or not, represent the conscience of the world. We cannot abrogate our responsibilities, neither can we equivocate on an issue on which, in the past, this Committee has taken a clear stand.

With these words I commend to representatives the twenty-Power draft resolution with the conviction that this Committee will adopt it and that the General Assembly will approve our action.

The CHAIRMAN: Does the representative of the United Arab Republic wish to exercise the right of reply?

Mr. ZEINEDDINE (United Arab Republic): I should like to make a few observations at this time in order to exercise the right of reply.

After listening with great interest and attention to the statements which have been made -- particularly the statement of the representative of the United Kingdom which supported in many ways the viewpoint expressed yesterday by the representative of France regarding the possible physical consequences of a test explosion -- I can see that such a test explosion would appear to be somewhat seductive. It would have no bad effects physically; it would, in a way, calm the apprehensions of France and it would tend to create equality and non-discrimination. In addition, it could abolish the existing panic among some peoples as well as the propaganda that some heads of Government, and others, have been undertaking, as referred to yesterday in the statement of the representative of France. Nevertheless, the idea continues to be disagreeable and unacceptable, in our humble opinion.
To begin with, regarding the question of the winds which might carry the atomic fallout -- their timing and their direction -- there is a considerable variety of scientific opinion. To say the least, it is to a large extent the affirmation of a weather man, who may be quite mistaken. A mistake in this case would not take place in a laboratory. It would not simply produce a shower instead of a fair day, but it would expose many people to the nefarious effects which could not be remedied later on.

If we were to admit that the physical consequences of an explosion -- considered dangerous by many Member States -- would not take place, there would still remain the more important aspects of the question before us, to which we referred yesterday and would like now to re-emphasize.

In the first place, there is the limitation of the use of the atomic bomb and of possessing it, the possibility of atomic alignments with those who possessed the bomb by those who feel that the possession of it is essential; and there would remain all the other consequences which I have referred to and to which not sufficient justice has been done in the debate so far by those who oppose our point of view regarding the French test.

Reference was made yesterday to the fact that the regional sub-committee of the Eastern Mediterranean, concerned with the atomic bomb, was an Arab sub-committee and that, therefore, the two resolutions of which I have spoken were not impartial. To begin with, that sub-committee -- there are two sub-committees, A and B, and I am referring here to sub-committee A -- is composed of Ethiopia, France, Iran, Iraq, Italy, Lebanon, Libya, Pakistan, Saudi Arabia, the Sudan, Tunisia, the United Arab Republic and the United Kingdom. Not all of its members voted for the resolution, it is true, but that was the composition of the sub-committee; it was not an Arab sub-committee. However, supposing for the sake of argument that it was composed of Arab members only, it was still an international body because the fact that some of its members were Arab did not give it in any way a national Arab appearance.

It has been said that had such test been fraught with risk for the peoples near the area where it took place, then some countries, such as the Soviet Union, for example, would not have undertaken it, and that, in the case of Australia, Australia would not have permitted it. There is a fundamental difference
between the French test and the other tests. In the case of the French test, people outside France would be exposed and, unlike the case of the Soviet test or the Australian test, it will not be undertaken with the agreement of those whom such tests would affect. The test in Australia could affect only the people of Australia.
We all know that the French bomb is an atomic bomb. It is not of the most modern kind, and it is by no means an H-bomb. But we all know likewise that small atomic bombs breed, with time, bigger bombs, and that this would endanger the safety — not only physically, but politically and morally — of the people concerned.

The CHAIRMAN: For the reason indicated earlier, the meeting of this afternoon will be cancelled. The next meeting will be at 10.30 tomorrow morning. There are speakers listed for that meeting, but only a few for the subsequent meeting. May I once again urge Committee members to inscribe their names so that we can plan our work for the future.

The meeting rose at 12.10 p.m.