

Letter from Albert Einstein to U.S. President Roosevelt on the Prospect of an Atomic Bomb (August 2, 1939)

Abstract

Many of the Jewish scientists who fled Nazi Germany emigrated to Great Britain, other European countries, or the United States, including a group of physicists who had knowledge of German experiments with uranium and rocketry. This group included Albert Einstein, who had been in America since the Nazi takeover in 1933. The group was aware of Germany's attempts to build a series of new weapons, including the V1 and V2 rockets, and they also knew of German plans to develop a nuclear bomb using uranium. The V1 and V2 "Vengeance" [*Vergeltung*] rocket systems were early cruise missiles (the V2s were guided ballistic missiles) that used jet propulsion to deploy explosives over a long range. Aware of the German nuclear projects as well, these physicists decided to inform the American government of the potential dangers. Albert Einstein's international reputation in the field of theoretical physics and his personal relationship with American president Franklin Roosevelt made him uniquely suited to pen the following letter to Roosevelt, warning him of the prospect of uranium being used in the creation of "a new type of bomb." Although it was written on August 2, 1939, Einstein's letter did not reach Roosevelt until mid-October, due to the outbreak of war in Europe. Upon reading the letter, Roosevelt ordered his generals to take action on the matter—a directive that would eventually lead to the Manhattan Project and the development of the first nuclear bombs.

Source

Albert Einstein
Old Grove Rd.
Nassau Point
Peconic, Long Island

August 2, 1939

F.D. Roosevelt,
President of the United States,
White House
Washington, D.C.

Sir:

Some recent work by E. Fermi and L. Szilard, which has been communicated to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future. Certain aspects of the situation which has arisen seem to call for watchfulness and, if necessary, quick action on the part of the Administration. I believe therefore that it is my duty to bring to your attention the following facts and recommendations:

In the course of the last four months it has been made probable – through the work of Joliot in France as well as Fermi and Szilard in America – that it may become possible to set up a nuclear chain reaction in a large mass of uranium, by which vast amounts of power and large quantities of new radium-like elements would be generated. Now it appears almost certain that this could be achieved in the immediate future.

This new phenomenon would also lead to the construction of bombs, and it is conceivable – though much less certain – that extremely powerful bombs of a new type may thus be constructed. A single bomb of this type, carried by boat and exploded in a port, might very well destroy the whole port together with some of the surrounding territory. However, such bombs might very well prove to be too heavy for transportation by air.

The United States has only very poor ores of uranium in moderate quantities. There is some good ore in Canada and the former Czechoslovakia, while the most important source of uranium is Belgian Congo.

In view of this situation you may think it desirable to have some permanent contact maintained between the Administration and the group of physicists working on chain reactions in America. One possible way of achieving this might be for you to entrust with this task a person who has your confidence and who could perhaps serve in an unofficial capacity. His task might comprise the following:

a) to approach Government Departments, keep them informed of the further development, and put forward recommendations for Government action, giving particular attention to the problem of securing a supply of uranium ore for the United States;

b) to speed up the experimental work, which is at present being carried on within the limits of the budgets of University laboratories, by providing funds, if such funds be required, through his contacts with private persons who are willing to make contributions for this cause, and perhaps also by obtaining the co-operation of industrial laboratories which have the necessary equipment.

I understand that Germany has actually stopped the sale of uranium from the Czechoslovakian mines which she has taken over. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizsäcker, is attached to the Kaiser-Wilhelm-Institut in Berlin where some of the American work on uranium is now being repeated.

Yours very truly,
Albert Einstein

Source: Letter from Albert Einstein to Franklin Delano Roosevelt discussing the possibility of an atomic bomb and Germany's interest in the same (August 2, 1939). Available online at: <http://www.fdrlibrary.marist.edu/archives/pdfs/docsworldwar.pdf>

Recommended Citation: Letter from Albert Einstein to U.S. President Roosevelt on the Prospect of an Atomic Bomb (August 2, 1939), published in: German History in Documents and Images, <<https://germanhistorydocs.org/en/nazi-germany-1933-1945/ghdi:document-5163>> [January 21, 2025].