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- II. THE CURRENT SCIENTIFIC SITUATION AND PROBABLE SCIENTIFIC DEVELOPMENTS.
- 1. Scientific resources. The German Democratic Republic (GDR) has fallen heir to an important portion of pre-war Germany's scientific resources and tradition. The resources include a large share of the scientists of pre-war Germany and such important centers of learning as Berlin, Halle, Jena, Leipzig, Griefswald, and Rostock. The ranks of East German scientists were swelled by recruits from the Western Zones shortly after the war. Despite the subsequent reversal of this trend, the total number of scientists in Eastern Germany is now about equal to the number in that area before the war. In terms of highlevel scientific talent, however, the GDR has been weakened by the emigration of many of its best scientists. Facilities for scientific research and education were crippled by the war and in many cases recovery is not yet complete. There is a shortage of laboratory equipment, although what is available is of good quality. The GDR has little that is unique in the way of special research facilities. In the field of scientific training, facilities include six universities and thirteen technical schools of university rank. In view of the need for scientifically trained personnel in Eastern Germany, the enrollment in these institutions is inadequate. Although rapid expansion is planned,

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the current lowering of higher educational standards will have to be checked if this expansion is to improve the scientific position of Eastern Germany.

2. Soviet policy. Science is encouraged in the GDR both by ample allotments of funds for research purposes and by the preferential treatment given scientists as a class. Scientists generally fare better than other elements of society. Because the regime recognizes that scientists and technicians are indispensible to the economic welfare of the country and cannot readily be replaced, it is hesitant to enforce too harsh measures. While, on the one hand, the uncertainties and fears associated with life in the GDR are enough to cause many scientists to flee westward, on the other hand, availability of funds for research activities and other positive factors make scientific positions attractive. Like other sectors of life in the GDR, science is subjected to the economic, political, ideological, and bureaucratic pressures of the "new orientation." But despite some of its stifling aspects, Soviet-type regimentation has not smothered scientific activity. In fact, the institution of the Soviet system of planning, particularly in industrial research, gives the GDR certain advantages by avoiding wasteful duplication of effort and by directing remearch toward the most urgent needs of the economy. The USSR, as the occupying power, has consigned the control of East German scientific effort for the most part to

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the administrative framework of the GDR. The USSR has apparently decided that it can benefit more from German science by allowing it to develop within certain limitations in its native environment than by integrating it directly into the Soviet system. This policy, together with Soviet reluctance to entrust sensitive research projects to people of doubtful loyalty, accounts for the return to Germany of all but about 100 specialists taken to the USSR after the war.

3. Research trends. Research during Soviet occupation has been limited for the most part to the applied fields as distinguished from basic or pure research. The fields receiving the most emphasis have been those relating to the strengthening of heavy industry and the development of substitute materials. At the present time increasing attention is being given to the fields of electronics and nuclear energy. In the past three years the scope of research activity has been broadened to cover types of research of more longrange significance. Probably in the future more emphasis will be placed on fundamental research. The USSR directly controls research primarily of a military nature, excepting it from the general policy of delegating East German science to GDR administration. During 1945 and 1946 effort was directed toward reconstituting complete data on German military developments such as the V-2 rocket and carrying selected projects forward. During 1947 and 1948 the latter projects were transferred to the USSR. Military research in the GDR has now been reduced to only a few less vital projects.

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- 4. Importance to the USSR. The USSR uses and depends upon East German technology, especially precision mechanics, although to a less extent now than during the two or three years following the war. In scientific fields, however, the USSR itself has advanced to such a point that Eastern German science no longer has many unique capabilities to offer. While German scientists complement Soviet science in several instances, particularly in electronics and bacteriology, the overall scientific advantage of Eastern Germany to the USSR is one of having additional manpower and facilities on its side rather than one of having access to a superior body of knowledge. An added advantage at the present time is the contact between East German and West German scientists, which provides a profitable source of information to the USSR concerning western scientific activities.
  - V. INDICATIONS OF PROBABLE SOVIET COURSES OF ACTION (derived from policies regarding science):
- 1. The Soviet policy of placing the administration of German science in the hands of the GDR would be consistant with a general policy of making the GDR an ecomomically autonomous unit, from which the USSR could gain through preferential trade relations while contributing a minimum of material support.
- 2. The USSR's ability to obtain information about western activities through East German scientists' contact with the west is an advantage which might mitigate further attempts to isolate Eastern Germany from the west.