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## **American Mathematicians in World War I**

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In 1919 D. A. Rothrock published a list of those mathematicians engaged in service in World War I [1; the complete list follows this introduction]. Rothrock gives a brief indication of the nature of the service of each person. Max Mason is listed as one involved in submarine research; Kevles in [4, pp. 117–126] describes Mason’s work and emphasizes that it was important. (Max Mason definitely was a mathematician.) A total of eight, including J. W. Alexander, Dunham Jackson, and J. F. Ritt are listed as being “with Major (F. R.) Moulton” in ordnance. In addition to these nine, there are twenty more who are listed as being “at Aberdeen Proving Grounds.” These twenty include Oswald Veblen, Norbert Wiener, and G. A. Bliss. G. C. Evans, W. L. Hart, Marston Morse, and Warren Weaver, along with many others, are listed as being engaged in a variety of war activities. Thus many of the mathematicians who assumed positions of leadership when World War II threatened had been involved in World War I. Since G. C. Evans was President of the Society in 1939 and 1940, he participated in the appointment of the War Preparedness Committee of AMS and MAA; Marston Morse (President in 1941 and 1942) was its general chairman and W. L. Hart was chairman of its education subcommittee [2], [3]. Oswald Veblen was a Major in Ordnance at Aberdeen Proving Grounds [1, p. 44]; he continued to be a consultant thereafter, and in 1937 he persuaded von Neumann to become a consultant to the Army Ordnance Department at Aberdeen. Then “von Neumann learned from R. H. Kent the related theories of shock and detonation as they were then known, so that by the time of Pearl Harbor in 1941 he was a leading expert in the subject. This expertise led to von Neumann’s involvement with a number of government agencies during the war: as a member of the National Defense Research Committee from 1941; as a consultant to

the Navy Bureau of Ordnance from 1942; and as an active participant on the Manhattan Project at Los Alamos Laboratory from 1943 to 1945” [5, pp. 170–171].

Thus many American mathematicians were engaged in war service in World War I, and some of them exerted an important influence on the participation of American mathematicians in World War II.

#### REFERENCES

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3. Marston Morse and William L. Hart. Mathematics in the Defense Program. *Amer. Math. Monthly*, **48** (1941), 293–302.
4. Daniel J. Kevles. *The Physicists*. Alfred A. Knopf, New York, 1978. xi+489 pages.
5. William Aspray. *The Mathematical Reception of the Modern Computer: John von Neumann and the Institute for Advanced Study Computer*. Studies in the History of Mathematics. MAA Studies in Mathematics, vol. 26. Mathematical Association of America, Washington, 1987, pp. 166–194.