

opinion, an impossible one. Practically all have to enter and leave the Interstate by some road, not a part of it. Enforcement would be a problem that could not be handled by most states. Simply stated, these new heavier loads would be using all highways.

For purposes of Defense there has been established a Principal Highway Network consisting of 244,753 miles, or *one-seventh* of the total Highway Network. These miles include the Interstate System and the cream of the other systems including toll roads. These routes are highways which might be reasonably used for important shipments or movement of troops. On this best of all of our highways, there are approximately 95,750 bridges. Of these, at least 68,700 are designed for less than HS-20, 30,073 for H-15 and less. When all roads in the United States are considered, according to information furnished by the Bureau of Public Roads, there are 518,226 highway bridges in use now that were built prior to 1936. They are over thirty years old and practically none of them were designed for loads over the H-15 design load, and many are for the equivalent of H-12, H-10, and even less.

As you consider this proposed legislation, we will appreciate your giving our testimony serious consideration.

CREDITS AND REFERENCES

Tables 1 and 1A—"Structural Engineers' Handbook" by Milo S. Ketchum C. E., McGraw-Hill, 1924.

Figure 1—"American Civil Engineers' Handbook" by Thaddeus Merriman and Thos. H. Wiggins, John Wiley & Sons, Inc., 1951.

Figure 2—"Stress Producing Effects of Equivalent Design Loads on Modern Highway Bridges" by Henson K. Stephenson and Kriss Cloninger, Jr., Bulletin No. 132, Texas Engineering Experiment Station, 1953.

Tables I and II—"Policy on Maximum Dimensions and Weights of Motor Vehicles to be Operated Over the Highways of the United States", Prepared by the Committee on Highway Transport, American Association of State Highway Officials, 1964.

Charts 1 and 2 by W. C. Zwick, Bridge Engineer, Oklahoma, Chairman Subcommittee on Loads of AASHO Bridge Committee.

Table 2 Figures 3 and 4—"Standard Specifications for Highway Bridges Operating Committee on Bridges and Structures of American Association of State Highway Officials", 1965.

"Structural Steel Design", Fritz Engineering Laboratory, Department of Civil Engineering, Lehigh University, Lambert Tall, Editor-in-Chief, The Ronald Press, 1964.

"Standard Specifications for Highway Bridges, American Association of State Highway Officials". All Editions.

"Maximum Desirable Dimensions and Weights of Vehicles Operated on The Federal-Aid Systems", U.S. Government Printing Office, Washington, 1964.

"Highway and Bridge Record Data as of December 31, 1966" Bureau of Public Roads, 6 November 1967.

Mr. KLUCZYNSKI. Our next witness will be Burton F. Miller of the American Road Builders Association.

STATEMENT OF BURTON F. MILLER, EXECUTIVE VICE PRESIDENT, AMERICAN ROAD BUILDERS ASSOCIATION

Mr. MILLER. Mr. Chairman, with your permission and in view of the circumstances, I would request that my paper be included in the record in full, and I will try to just hit the highlights.

Mr. KLUCZYNSKI. Without objection, it is ordered that the statement of the gentleman, Mr. Miller, will be made a part of the record in its entirety.

(Prepared statement follows:)