

## FOREWORD

This Interim Engineering Progress Report covers the work performed under Contract No. AF 33(615)-1390 from 1 September 1965 to 30 November 1965. It is published for technical information only and does not necessarily represent the recommendations, conclusions, or approval of the Air Force.

This contract with Battelle Memorial Institute of Columbus, Ohio, was initiated under Manufacturing Methods Project No. 8-198, "Development of the Manufacturing Capabilities of the Hydrostatic Extrusion Process". It is being administered under the direction of Mr. Gerald A. Gegel of the Metallurgical Processing Branch (MATB), Manufacturing Technology Division, Air Force Materials Laboratory, Wright-Patterson Air Force Base, Ohio

The program is being conducted at Battelle by the Metalworking Research Division with Mr. R. J. Fiorentino, Associate Chief, as project engineer. Others contributing to the program are Mr. W. R. Hansen, Research Metallurgist, Mr. A. M. Sabroff, Associate Chief, and Mr. F. W. Boulger, Division Chief. Mr. R. L. Jentgen, Project Leader in the Experimental Physics Division, is assisting in the fluid and lubrication studies of the program. Mr. J. C. Gerdeen, Research Mechanical Engineer, Mr. E. C. Rodabaugh, Senior Mechanical Engineer, and Mr. T. J. Atterbury, Chief of the Applied Solid Mechanics Division are contributing to the high-pressure container design study. Data from which this report has been prepared are contained in Battelle Laboratory Record Book Nos. 21990 and 23055.