

JOHN W. BACKUS
A REGISTER OF HIS PAPERS
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Prepared by

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Manuscript Division
Library of Congress
Washington, D.C.

2004

Collection Summary

Title: Papers of John W. Backus
Span Dates: 1951-2001 (bulk 1953-1991)
ID No: MSS84968
Creator: Backus, John W., 1924-
Size: 2,000 items; 12 containers plus 1 oversize; 4.8 linear feet
Repository: Manuscript Division, Library of Congress, Washington, D.C.
Abstract: Computer scientist. Correspondence, memoranda, reports, writings, speeches, notes, slides, photographs, and other papers relating to his work on programming languages, particularly FORTRAN.

Administrative Information

Provenance: The papers of John W. Backus, computer scientist, were given to the Library of Congress by Backus in 2003.

Transfers: A sound recording has been transferred to the Motion Picture, Broadcasting, and Recorded Sound Division.

Copyright Status: Copyright in the unpublished writings of John W. Backus in these papers and in other collections in the custody of the Library of Congress is reserved. Consult a reference librarian in the Manuscript Division for further information.

Preferred Citation: Researchers wishing to cite this collection should include the following information: Container number, John W. Backus Papers, Manuscript Division, Library of Congress, Washington, D.C.

Biographical Note

- 1924, Dec. 3 Born, Philadelphia, Pa.
- 1942 Attended University of Virginia, Charlottesville, Va.
- 1943-1946 United States Army, studied engineering at University of Pittsburgh, Pittsburgh, Pa., and medicine at Flower and Fifth Avenue Medical School, New York, N.Y.
- 1949 B.S. in mathematics, Columbia University, New York, N.Y.
- 1950 M.A. in mathematics, Columbia University, New York, N.Y.
- 1950-1953 Programmer, IBM, New York, N.Y.
- 1953-1959 Manager, programming research, IBM, Yorktown Heights, N.Y.
- 1959-1963 Staff member, T. J. Watson Research Center, IBM, Yorktown Heights, N.Y.
- 1963-1991 IBM fellow, Yorktown Heights, N.Y., and Almaden Research Center, San Jose, Calif.
- 1968 Married Barbara Una Stannard
- 1976 Received National Medal of Science (National Science Foundation)
- 1977 Received A. M. Turing Award (Association for Computing Machinery)
- 1993 Received Charles Stark Draper Prize (National Academy of Engineering)

Scope and Content Note

The papers of John Warner Backus (1924-) span the years 1951-2001, with the bulk of the material dating from 1953 to 1991. They relate primarily to his work as a computer scientist at IBM from 1950 to 1991 where he developed FORTRAN, the first commercially successful high-level programming language. Documents in the Backus Papers are arranged in numerical order according to a system prepared by Backus. His item list containing descriptive comments about individual items or groups of items is located at the beginning of the collection. Another copy is appended to this register.

Included in the collection are correspondence, memoranda, reports, papers, speeches and lectures, notes, articles, manuals, and historical retrospectives relating to Backus's activities as a pioneer in computer programming. Items from the early years include notes on his work with IBM's Selective Sequence Electronic Calculator, a 1954 preliminary report on specifications for FORTRAN, early programming manuals, correspondence with the first FORTRAN customers, photographs from a meeting of the committee working on the international algebraic language ALGOL, and a paper from 1959 in which Backus proposed what later became the Backus-Naur Form (BNF) used to describe grammatical rules for high-level programming languages.

From 1963 until his retirement in 1991 Backus held the position of IBM Fellow and pursued his own research projects relating to mathematical theories of programming and the development of functional programming languages. This work is documented in annual reports, internal project papers, texts of lectures, and photographs of calculations on blackboards. Also included are files documenting Backus's political activism as a member of Computer Professionals Against ABM (anti-ballistic missile system) in the early 1970s and as an opponent of the strategic defense initiative in the 1980s.

Container List

<i>Container Nos.</i>	<i>Contents</i>
1	Item list, n.d. Item numbers Nos. 1-20, 1953-1994, n.d. (22 folders)
2	Nos. 21-33, 1958-1987, n.d. (16 folders)
3	Nos. 34-50, 1980-1990, n.d. (19 folders)
4	Nos. 51-65, 1954-1959, 1973, 1981-1991, n.d. (17 folders)
5	Nos. 66-91, 1951-1961, 1972-1987, n.d. (26 folders) <i>See also Oversize</i>
6	Nos. 92-118, 1953-1958, ca. 1966, 1975-1983, n.d. (27 folders)
7	Nos. 119-134, 1955-1961, 1971-1982, n.d. (18 folders)
8	Nos. 135-143, 1964-1989 (13 folders)
9	Nos. 144-164, 1963-1989, n.d. (22 folders) <i>See also Oversize</i>
10	Nos. 165-184, ca. 1959, 1967-1972, 1979-2001, n.d. (21 folders) <i>See also Oversize</i>
11	Nos. 185-194, 1961-1965, 1972-1974, 1988-1991, n.d. (14 folders)
12	Nos. 195-211, 1985-1994, n.d. (17 folders)
OV 1	Oversize Item numbers No. 71, ca. 1951-1952 (Container 5) No. 164, 1985 (Container 9) No. 169, 1982 (Container 10)