

EXHIBIT A

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BIOGRAPHY

HARRY F. MANBECK, JR.

Harry F. Manbeck, Jr. is an attorney-at-law and a member of the firm of Rothwell, Figg, Ernst & Manbeck. The firm and Mr. Manbeck's offices are located at 1425 K Street, N.W., Suite 800, Washington, D.C. 20005. From March 1990 to May 1992, he was Assistant Secretary of Commerce and Commissioner of Patents and Trademarks of the United States. He was nominated to these offices by President Bush on October 11, 1989 and confirmed by the Senate on March 9, 1990.

Prior to his government service, Mr. Manbeck practiced patent law for over thirty-five years and at the time of his appointment he was General Patent Counsel of the General Electric Company. He joined General Electric in 1949 and advanced to become General Patent Counsel in 1970, which position he held until becoming Commissioner. Prior to joining the General Electric Company, he served in the U.S. Army Signal Corps.

A native of Honesdale, Pennsylvania, Mr. Manbeck graduated with Highest Honors from Lehigh University in 1949 with a B.S. in Electrical Engineering. He received his L.L.B. with Honors from the University of Louisville in 1954. Mr. Manbeck is a member of the District of Columbia, Connecticut, Indiana, Kentucky and Massachusetts bars and is admitted to practice before the Court of Appeals for the Federal Circuit. He is also registered to practice in front of the United States Patent and Trademark Office.

Mr. Manbeck has served as Chairman of the Patent, Trademark and Copyright Section of the American Bar Association; President of the Association of Corporate Patent Counsel; a Director of the Intellectual Property Owners, Inc.; and a Director of the Bar Association of the Court of Appeals for the Federal Circuit. He is also a member of the American Intellectual Property Law Association and the Connecticut Patent Law Association. In 1984 Mr. Manbeck was awarded the Whitney North Seymour Medal of the American Arbitration Association for contributions made to the process of arbitration in the United States.

Mr. Manbeck is married to the former Julia P. McCarthy and they reside in McLean, Virginia.