

ST. PAUL, MINN.

ARLINGTON, VA.

Engineering Research Associates, inc.~~CONFIDENTIAL~~

507 18TH STREET SOUTH, ARLINGTON, VA.

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24 October 1951

Mr. William F. Friedman
3801 Nebraska Avenue
Washington 16, D. C.

Dear Mr. Friedman:

I'm enclosing a copy of a letter from Mr. McPherson concerning Traveling Wave Tube Research which has certain implications with respect to your research program on Ultra Highspeed Computation. This information will probably be of interest to Captain Harper and Dr. Eachus.

Yours,

H. T. Engstrom
Vice President

HTE:nlb
Enclosure

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INTERNATIONAL BUSINESS MACHINES CORPORATION
 590 MADISON AVENUE
 NEW YORK 22, N. Y.

Office of
 Vice President

September 14, 1951

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Dr. H. T. Engstrom, Vice President
 Engineering Research Associates, Inc.
 507 18th Street South
 Arlington, Virginia

Dear Dr. Engstrom:

Relative to the question which was raised at our group's meeting yesterday on Traveling Wave Tube Research, I have received the following comments:

Dr. Lester Field at Stanford, who formerly worked with John Pierce of Bell Telephone Laboratories, is doing an outstanding job on basic research concerning this tube, extending its frequency range and learning more about its characteristics; and the work at MIT under Dr. L. Smullin also involves an interest in operating at higher frequency, but in recent months it is thought that Dr. Smullin has been off the traveling wave tube work and active on the Valley Committee and now on Project Charles.

There is also some work being done on traveling wave tubes at Federal Communications Laboratory in Nutley, New Jersey, under John Bryan; in Sperry Gyroscope under Mr. Sheppard, by a Mr. Wang, a Chinese. This latter project is primarily interested in very high-power applications of the traveling wave tube.

In making my inquiries, I assumed that Bell Telephone Laboratories' work was already known. The people there undoubtedly are doing a very major job on this tube, and you can secure comments on their interest and scope of work by inquiry from Dr. Potter or Dr. Shannon.

Very truly yours,

/s/

John C. McPherson

JCMcP:JW

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