

## MEMO ROUTING SLIP

REF ID: A68371

NEVER USE FOR APPROVALS, DISAPPROVALS,  
CURRENCES, OR SIMILAR ACTIONS

|   |                           |          |                  |
|---|---------------------------|----------|------------------|
| 1 | NAME OR TITLE             | INITIALS | CIRCULATE        |
|   | ORGANIZATION AND LOCATION | DATE     | COORDINATION     |
| 2 |                           |          | FILE             |
|   |                           |          | INFORMATION      |
| 3 |                           |          | NECESSARY ACTION |
|   |                           |          | NOTE AND RETURN  |
| 4 |                           |          | SEE ME           |
|   |                           |          | SIGNATURE        |

## REMARKS

I Talked with Dr. Kullback  
and Dr. Campaigne about this  
and neither knows anything  
about Mr. Wington.

Approved for Release by NSA on 05-20-2014 pursuant to E.O. 13526

|                           |  |            |  |
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|                           |  | <i>JPM</i> |  |
| FROM NAME OR TITLE        |  | DATE       |  |
| ORGANIZATION AND LOCATION |  | TELEPHONE  |  |

DD FORM 1 FEB 50 95

Replaces DA AGO Form 896, 1 Apr 48, and AFHQ  
Form 12, 10 Nov 47, which may be used.

16-48487-4 GPO

BELL TELEPHONE LABORATORIES  
INCORPORATED

463 WEST STREET, NEW YORK 14, N. Y.

CHELSEA 3-1000

July 9, 1954

F. D. LEAMER  
PERSONNEL DIRECTOR

DR. WILLIAM F. FRIEDMAN  
Department of Defense  
National Security Agency  
Washington 25, D. C.

Dear Dr. Friedman:

In reference to your conversation with Mr. A. W. Horton, Jr. of Bell Telephone Laboratories, we are referring the qualifications resume of Mr. Ronald Lee Wigington, a Member of our Technical Staff, who was inducted into the Armed Services on July 8, 1954.

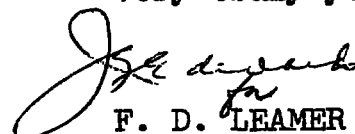
As the enclosed summary indicates, Mr. Wigington was graduated from the University of Kansas in June, 1953, having been awarded the degree of Bachelor of Science in Engineering Physics. He was employed by these Laboratories on June 15, 1953 and was assigned to electron tube analysis and development in our Transmission Development Department. I understand from Mr. Wigington's department that they have a very high opinion of his technical abilities.

We have asked Mr. Wigington to inform us of the completion of his basic training in addition to his military address and serial number. Upon your request we will forward this information to you.

I understand that Mr. Horton also recommended another Member of our Technical Staff, Dr. Harold S. Shapiro, who reported for induction on May 7, 1954. However, Dr. Shapiro has been reclassified 4-F and has since resumed his work with the Laboratories.

If we can be of any further assistance in this matter, please do not hesitate to call on us.

Very truly yours,



F. D. LEAMER

College Education - Undergraduate

Graduated June 1953 from the University of Kansas, School of Engineering and Architecture.

Degree - B.S. in Engineering Physics.

Description of course:

The Engineering Physics curriculum includes the basic physics course of a liberal arts physics graduate with fundamentals of electrical engineering and other basic engineering courses in place of the liberal arts student's non-technical courses, including also a strong emphasis on mathematics.

Graduate Credit

University of Kansas (during spring semester 1953, senior year)  
Six hours' credit in graduate mathematics - Introduction to Theory of Functions and Introduction to Modern Algebra.

Special Project Work in College

During the senior year in a course called Special Problems, Mr. Wigington worked on the design and building of an automatic recording ionization chamber to be used as a safety device in the control room of the school's Van de Graaf generator. It was to be used to record how much radiation the operators of the generator were exposed to.

This project included the design, building, and testing of an ionization chamber to be used as a detector, the design of a special preamplifier housing and ionization chamber mount, the selection of a suitable DC amplifier and the adaptation of an old mechanical recording Wheatstone bridge for measuring current. Mr. Wigington worked on the project alone, was able in the time available to complete all of it except the final building of the DC amplifier and the testing and calibration of the complete system.

Bell Telephone Laboratories, Inc., Communications Development  
Training Program: September 1953 to July 1954

Term 1 - Analysis I  
Physics of Waves  
Probability and Statistics  
Bell System

Term 2 - Analysis II  
Atomic Physics  
Logic and Switching  
Bell System II

Term 3 - Fundamental Circuit Theory  
Solid State Physics  
Communication Theory  
Bell System III

### Technical Employment

Phillips Petroleum Co., Bartlesville, Oklahoma.  
Summer 1951 (June 1 to August 15)

Worked as a laboratory assistant in a chemical laboratory, Research and Development department, Division of Rubber and Chemicals. The work consisted essentially of preparation from the latex of batches of different types of synthetic rubber for use in an exploratory development plastics project and in operation of an experimental type of apparatus used in separating catalyst from reactants in hydrocarbon solution. This included experimentation in methods of operating the apparatus and assisting in evaluating it for efficiency of catalyst removal. Other routine jobs in the project were also performed.

Summer 1952 (June 1 to August 31), Phillips Petroleum Co.

Was employed in the Physical Chemistry research group in the Hydrocarbon Conversion Division (R. and D. Dept.); designing and operating an automatic gas collection system used in evaluating catalysts for hydrocarbon conversion. Radioactive tracer techniques were used.

Bell Telephone Laboratories, Inc. (6-16-53 to induction)

1) June 15 to September 1.

Performed some theoretical temperature studies on the grids of the M 1805 millimeter klystron. A severe grid burnout problem arose in the construction of this tube due to small size of the tube components and the high electron beam power densities encountered. More specifically, the method by which the grid elements are cooled (i.e., conduction or radiation) and comparison of several grid structures for favorable thermal characteristics were studied.

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## 2) September 1 to January 15.

Second assignment was assisting in the building of an experimental interstage network in the 100 - 500 Mc range. The work involved measurements on a scaled up (in size, scaled down in frequency) model of the interstage to get an empirical feel for the criticality of precision in component values, and construction and measurement of components for the 100 - 500 Mc range.

## 3) January 15 to date.

Principal problem was setting up and operating a waveguide system in the millimeter wave range (midband is 55.5 kmc) to measure the Q of cavities by the reflected power method. Included in this work was showing the practicality of using titanium deposited glass vanes for attenuator cards in precision calibrated attenuators for the millimeter wave range.

Some Q measuring studies were set up for exploring the effect of surface treatment of hobbled millimeter wave cavities to check some results obtained by the British and to explore possibilities for improving the Q of the cavity of the M 1805 klystron. These studies are in progress now.