

~~SECRET~~

29 September 1966

MEMORANDUM FOR THE RECORD

25X1A9a FROM : [REDACTED]

SUBJECT: Trip Report - 2nd Symposium on Test Instrumentation

1. I attended the 2nd Symposium on Test Instrumentation and "related problem areas" hosted by Hewlett Packard on the 19th through 22nd Sept. 1966 at Palo Alto. There were approximately 190 participants and 75 companies, colleges, and government groups at the symposium.

2. The first three days were devoted to semi-formal panel-lecture and discussion periods. The fourth day we toured the H.P. facilities and visited Stanford University's 20 Billion Electron Volt Linear Accelerator. All tours were very interesting.

3. The following topics were of particular interest to me:

a. Calibration. Accuracy of calibration, precision, certification, traceability of calibration and equipment recall time were discussed. Nothing really new except the trend to adopt "dynamic" recall time for equipment calibration. This scheme uses a variable recall cycle based upon various factors affecting the particular instrument.

b. Centralization of Test Equipment. Central instrument pools appear to be the trend in industry today. The primary advantages are better control and significant reduction of costs. Many different methods of instrument control were covered including internal renting (green stamps) with computer assistance. I believe central instrument repair and calibration is an area that should be pursued within CIA.

c. Service Contracts. The use of service contracts for instrument repair is popular within industry and government, but has many limitations. The cost generally averages from 1 to 2% monthly of instrument acquisition cost. In-house capability is generally much cheaper, however service contracts have proven very helpful on special instruments. As we have learned, a strong note of caution was directed to the selection of the service company.

*The Lab & T&I
Does
now*

~~SECRET~~

Excluded from automatic
downgrading and
declassification

~~SECRET~~

d. Quality Control. A definite increased trend of poor quality equipment being manufactured was noted. Statements of rejects ranging from 15 to 40% were heard. We aren't alone with this problem. Emphasis was put on trying to adopt DOD's Zero Defects program.

e. Qualified Technicians. A good deal of discussion was devoted to the many related problems, specifically:

(1) Sources of Techs. Two year tech schools were considered the best with the military next in line.

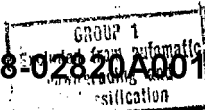
(2) Hiring. The primary point was directed to the necessity of a very good screening process before hiring. This should include several hours of multiple interviews, a preliminary quiz, and a tour through the plant. Industry is hurting badly for qualified techs and the draft is becoming a significant problem for many.

(3) Training. In-house training was considered a must coupled with a good development program directed at promotion from within. Recognition, appropriate title (Lab Supervisor, Field Engineer vice technician) and attention to motivation factors were weighed very heavily.

(4) Wages. By a show of hands the highest paid technician (working on the bench) was about \$800.00 per month which is a little better than the GS-11. The top salary for shop supervisors (non-bench working techs) was approximately \$12,500 which is a little less than a GS-13. It was of particular interest to me that the majority of the companies strongly favor senior technicians to supervise the labs. vice graduate engineers. Again this points out the need for GS-12 supervisors.

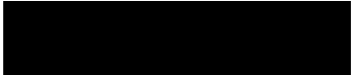
(5) Testing. Testing programs are used widely throughout industry as a tool to assist in evaluating technical proficiency. However caution was urged on it's weighing. Many companies indicated a desire to have a testing program but the unions would not allow it.

~~SECRET~~



f. Logical Trouble-Shooting. A scheme of trouble-shooting titled "Logical Electronic Trouble-Shooting" was explained and strongly recommended as a complement to any training program. I plan to investigate this area further.

4. In summary the Symposium was very interesting. It provided some new thoughts, methods and schemes that may prove beneficial if adopted. Further it was gratifying to see that industry has the same problems as we do and that most of their recommended solutions are very similar to policies presently used within the Agency.



25X1A9a

