

1975

# Final summary report, December 1975

Ronald J. Evans

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## Recommended Citation

Evans, Ronald J., "Final summary report, December 1975" (1975). *Fritz Laboratory Reports*. Paper 1645.  
<http://preserve.lehigh.edu/engr-civil-environmental-fritz-lab-reports/1645>

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FINAL SUMMARY REPORT OF

RONALD J. EVANS

by

Ronald J. Evans

This work was conducted during  
the period September 1974 to December 31, 1975.

Fritz Engineering Laboratory  
Lehigh University  
Bethlehem, Pennsylvania

December 1975

LEHIGH/FL/237-90

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ABSTRACT

This report gives a summary of the work performed under Project 237 and 369 during the period September 1974 to December 1975 at Fritz Engineering Laboratory, Lehigh University.

The report is in two sections. The first describes Project 237, Laboratory Facilities and Research. The second describes Project 369, Planning and Design of Tall Buildings.

Lists and locations of reports and computer programs are given. A summary of work begun yet not completed is also presented. Finally, some recommendations are presented.

1. LABORATORY FACILITIES AND RESEARCH

Project 237, Laboratory Facilities and Research, is an ongoing effort to coordinate and administer the procedures of Fritz Engineering Laboratory.

My areas of responsibility under this project were:

- 1) Maintain Fritz Lab Research Manual
- 2) Maintain Office Procedure Book (F5X)
- 3) Maintain System F
- 4) Assist in C.E. 385
- 5) Maintain Computer X-File
- 6) Maintain Guide Letter Book
- 7) Maintain Computerized Budget Reporting System

### 1.1 Maintain Fritz Lab Research Manual

The Fritz Lab Research Manual is a guide used when conducting research projects. On my arrival the manual was very out-of-date. This situation has been corrected. The memo and list section of the manual are now complete and accurate. A new section was added to the manual, "checklists". This new section provides sequential procedures for various research functions. The remaining section which describes the testing section of the manual has not been completed. Various portions have been started and remaining areas of deficiency have been identified.

As has been the Lab policy, the original and historical research manuals are stored in room 502.

A supply of copies of the research manual to be distributed to new faculty and staff are also stored there.

### 1.2 Maintain Office Procedure Book

The Office Procedure Book is a description of the various functions to be performed by the administrative staff of the lab. The main objective is to provide uniformity to their work. The book has been partially completed. Instructions for continued updating have been left with the secretaries in room 502 and my replacement.

### 1.3 Maintain System F

System F is an overall collection of data pertaining to Fritz Lab. It presents the objectives, environment, resources, components and management of the Lab. The system had been started by Dr. Beedle prior to my arrival. My responsibility has been to collect more data needed by the system and organize it into the various section headings. Also, Roster F7S was developed to relate job positions with personnel.

More work needs to be done to make this system complete. An overall theory relating the various components needs to be developed. Prior to this complete descriptions should be prepared.

#### 1.4 Assist in C.E. 385

Each spring semester C.E. 385 is offered. Dr. Beedle is the professor. This class uses the Fritz Lab Research Manual as a text. It was my responsibility to take the criticisms of the class and incorporate them into the manual. This proved to be very beneficial to me in the updating of the manual.

#### 1.5 Maintain Computer X-File

A system has been developed to transfer punch cards to magnetic tape. This system has been organized so that data transferred to tape may be retrieved for future projects use. To date all projects located on the 7th floor have been transferred to tape except for two. These should be transferred to tape by early spring. A report is presently being developed to describe the uses of the system and a complete listing of the data and program recorded. This will be Fritz Lab Report LEHIGH/FL/237-91.



#### 1.6 Maintain Guide Letter Book

The Guide Letter Book, located in room 502, presents various form letters for use by the Fritz Lab Staff. Revisions to these letters has been started. Instructions for their completion have been passed on to the secretaries in room 502.

#### 1.7 Maintain Roster Book

The Roster Book, located in room 502, should be updated semi-annually. This has been done in a coordinated effort with the secretaries and people who make use of the book. For the book to remain viable it must be updated semi-annually.

#### 1.8 Maintain Computerized Budget Reporting System

A computerized listing of Fritz Lab Report 1B and Report 1C has been completed. It is generated from a system utilizing the CDC 6400 and a data base stored on magnetic tape. Also, List No. 2, a supplement to the Research Manual can be generated by the system. For a complete description of the uses and necessary information to operate the system refer to Fritz Lab Report LEHIGH/FL/237-89.

2. SUMMARY OF REPORTS

237-89	COMPUTERIZED BUDGET REPORTING SYSTEM
237-90	FIRTZ LAB BROCHURE
237-91	COMPUTERIZED X-FILE
237-17(75)	CURRENT FRITZ LAB PROJECTS

### 3. RECOMMENDATIONS

A secretary guide need be developed. This should be coordinated not only with the Word Processing Center but standing procedures such as the Office Procedure Book and the Guide Letter Book. This guide book should be the policy to be followed by all the secretaries associated with the Lab.

Position Descriptions for every position in the Lab (not the C.E. Department) should be developed. These should be developed by the person filling the position and their immediate supervisor. This will focus the responsibilities of the position on the person holding it, and will also show gaps where responsibility is not being covered. These descriptions will also be a benefit to supervisors when assigning new areas of responsibility. This should be the next step in the development of System F.

Assisting in C.E. 385 by the person responsible for the Research Manual should be required. Students present many criticisms that are valuable and should not be under estimated.

The Computerized Budget Reporting System is a small start on a big job. This system can be expanded, with enough time, into a complex system supplying total information to the Lab. For this to take place a computer programmer, with some system analysis background, will be needed. This person, whether full time staff or R.A., could serve the entire Lab. If this cannot be arranged, perhaps another department has a student interested in developing such a program for a thesis. This is too big a task to complete for a thesis, but the organization of the various needs and benefits of a system supplying these needs would be a good topic. This is not a job to be pushed on someone who has other responsibilities. It is much too complex and time consuming.

A Lounge Room should be made available to the staff of the Lab. This would allow much more communication to take place between personnel. Although it might at first seem to be an escape to some, this need not be the case with proper emphasis and example provided by others.

#### 4. PLANNING AND DESIGN OF TALL BUILDINGS

Project 369, Planning and Design of Tall Buildings was the other Project on which I participated. On this project my activity was concentrated to the making and upkeep of several schedules and meeting papers.

My activity can best be summarized by:

- 1) Maintain Schedule 3.1 (Staff Action Items)
- 2) Maintain Schedule 3.3 (Steering Group Action Items)
- 3) Maintain Schedule 6.5 (Editorial Group Action Items)
- 4) Maintain Schedule 3.7 (Meeting Papers)
- 5) Maintain Schedule 3.8
- 6) Maintain Schedule 3.C (Schedule of Activities)
- 7) Maintain Schedule 3.D (Master Time Schedule)
- 8) Develop and maintain Schedule 3.e (Overall Master Progress Control)

In these areas, all were routine procedures of the upkeep of schedules as needed, with the exception of Master Progress Control. For this reason it only will be presented.

#### 4.1 Master Progress Control (3.e)

This schedule contains a listing of the major phases of the project. Each project is identified with the major schedule that controls the particular phase. The main objective of schedule 3.e then is to control the entire project through the control and coordination of all the phases that compose the project. This system has not been completely developed. In the phases that have been developed, the schedules have proven useful.

#### 4.2 Recommendation

Master Progress Control should be the primary short term goal for my replacement. All of the necessary schedules for controlling the individual phases have not been developed. These schedules are the most critical components of the system and should not be overlooked.

Through the development of the Master Progress Control system, I have been in contact with most of the headquarters staff of the project. The majority feel that their work is "...not really research". This situation is not conducive to good moral in a research team.

Others feel that their work on the project is not in their professional field. This is evident in some areas. Only by adding to the present staff can this situation be corrected. This alternative deserves further investigation.

5. ADDRESS

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## 6. SUMMARY

This report presents a brief overview of some of the areas in which I worked as a general administrative research assistant, at Fritz Engineering Laboratory, Lehigh University. It does not include the many small jobs that are required to be completed in the efficient performance of the position.

7. ACKNOWLEDGEMENT

As with most I find this the most difficult page to compose. The task is particularly difficult in my case because of the many contacts I have had with everyone in the Lab. Of course a special word of thanks goes to both Dr. Lynn S. Beedle and Dr. George C. Driscoll, Jr. who offered me the opportunity to work at the Lab and were my supervisors.

A list of all the others who have offered and helped me in my work would be easy to present but rather lengthy. It would be the personnel list of the Lab; rather a simple word of thanks to all.

And to the girls in the Word Processing Center I offer the thought that this will be the last torture test I put them through with my terrible drafts.