

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION
SPONSORED PROJECT INITIATION

Date: July 17, 1980

Project Title: Development of a Video Tape Training Course on the Error Sources
Produced by Law Enforcement Speed Timing Radars

Project No: A-2676

Project Director: Mr. E. F. Greneker

Sponsor: Department of Transportation; National Highway Traffic Safety Administration;
400 Seventh Street, S. W.; Washington, D. C. 20590

Agreement Period: From 5/21/80 Until 9/20/80

Type Agreement: Contract No. DTNH22-80-C-05103

Amount: \$30,797

Reports Required: Monthly Progress Reports; Shooting Script; Video Tape/Film Abstract;
Final Report; Technical Summary

Sponsor Contact Person (s):

Technical Matters

Mr. Ronald E. Engle
NTS-13
202/426-0078

Contractual Matters

(thru OCA)

R. P. McKenzie
Contracting Officer
Department of Transportation
National Highway Traffic Safety Administration
Office of Contracts and Procurement
400 Seventh Street, S. W.
Washington, D. C. 20590

Defense Priority Rating: N/A

Assigned to: RAIL/RAD (School/Laboratory)

COPIES TO:

Project Director
Division Chief (EES)
School/Laboratory Director
Dean/Director-EES
Accounting Office
Procurement Office
Security Coordinator (OCA)
 Reports Coordinator (OCA)

Library, Technical Reports Section
EES Information Office
EES Reports & Procedures
Project File (OCA)
Project Code (GTRI)
Other _____



Georgia Institute of Technology

ENGINEERING EXPERIMENT STATION

ATLANTA, GEORGIA 30332

July 8, 1980

National Highway Traffic Safety Administration
NTS-13, Room 5118
NASSIF Building
400 7th Street, S. W.
Washington, D. C. 20590

Attention: Sergeant William J. Nash
Contract Technical Monitor

Subject: Research Project "Development of a Video Tape Training Course on the Error Sources Produced by Law Enforcement Speed Timing Radars", progress report covering the period from 15 June 1980 through 30 June 1980.

Gentlemen:

This is the first of three monthly progress reports. Note that 15 June 1980 is assumed to be the project initiation date, although the contract was back dated to 15 May 1980. Because of the delay in our internal financial report, the financial information to be furnished to you will be one month in arrears. Thus the financial status sheet for June will be included in the next monthly progress report.

The following activities were completed between June 15 and June 30, 1980.

I. Review of Literature

The Basic Training Program in Radar Speed Measurement Instructor's and Trainee's Manuals were reviewed to outline their order of presentation. Also the NBS report on the anomalies alleged in the Miami-Dade County, Florida hearing, was reviewed. This literature will be used to plan the content and structure of the video tape.

II. Speed Timing Radar Planning Session

A planning session for the content and structure of the video tape was held on June 26, 1980. In attendance were representatives from NHTSA, the Georgia State Patrol, and Georgia Tech/EES. Discussed were program purpose, scheduling, review of alleged error sources, equipment and manpower requirements, and design of the script outline. NHTSA and Georgia Tech/EES personnel agreed that the video tape should be a summary of material in the Instructional Manual rather than a parallel of the manual.

III. Plans for July

The writing of the video tape script is to be accomplished in July. Also planned is the review of the script by NHTSA personnel before the video taping is initiated.

Respectfully submitted,

Eugene F. Greneker
Project Director

Approved:

J. D. Echard, Chief
Radar Applications Division

EFG/ss

Georgia Institute of Technology

ENGINEERING EXPERIMENT STATION

ATLANTA, GEORGIA 30332

August 11, 1980

National Highway Traffic Safety Administration
NTS-13, Room 5118
NASSIF Building
400 7th Street, S. W.
Washington, D. C. 20590

Attention: Mr. Ron Engle
Contract Technical Monitor

Subject: Research Project "Development of a Video Tape Training Course on the Error Sources Produced by Law Enforcement Speed Timing Radars", progress report covering the period from 1 July 1980 through 31 July 1980.

Gentlemen:

This is the second of three monthly progress reports. The financial reports for June and July 1980 were unavailable at the time of preparation of this progress letter, but these reports will be sent to NHTSA as soon as Georgia Tech/Engineering Experiment Station's Accounting Department makes the information available to the project director.

The following activities were completed between July 1 and July 31, 1980.

I. Change to 60-Minute Video Tape

It was decided that the video tape should be expanded from 30 to 60 minutes at no extra cost to NHTSA. This decision was made to ensure detailed coverage of the contract specified material in the video tape. This expansion plan was discussed with Contract Monitor Ron Engle, and approval to proceed with the one hour format was approved.

II. Writing of Script

The first 30 minutes of the video script was completed and was to be sent to NHTSA for approval during August. This first-half of the script covers basic radar theory and an explanation of the Doppler theory, especially as applied to police radar.

III. Logistics for Production

Much of the logistics concerned with production was accomplished. The Georgia State Patrol agreed to supply appropriate manpower and marked cars. The coordination of the video tape equipment and operators was also undertaken. Studio time has also been initiated for the studio segment and editing.



Georgia Institute of Technology

ENGINEERING EXPERIMENT STATION

ATLANTA, GEORGIA 30332

September 16, 1980

National Highway Traffic Safety
Administration
NTS-13, Room 5118
NASSIF Building
400 7th Street, S.W.
Washington, D. C. 20590

Attention: Mr. Ron Engle
Contract Technical Monitor

Subject: Research Project "Development of A Video Tape Training Course on the Error Sources Produced by Law Enforcement Speed Timing Radars", progress report covering the period from August 1, 1980 through August 31, 1980

Gentlemen:

This is the third monthly progress report. Again, financial data is unavailable for furnishing to NHTSA.

The following activities were completed between August 1 and August 31, 1980.

I. Review of First 30 Minutes of Script

The first half (30 minutes) of the 60 minute script was reviewed by NHTSA. NHTSA and Georgia Tech EES personnel conferred on the script via telephone.

II. Writing of Last 30 Minutes of Script

The second half (30 minutes) of the 60 minute script was completed. This second-half covers correct operation of law enforcement speed timing radars, possible error sources, and avoidance of these errors.

III. Logistics for Production

More of the production logistics were taken care of. The use of computer graphic facilities for animation was arranged. Various major manufacturers of speed timing radars were contacted in order to secure

radars to use in the video tape. The services of a professional cinematographer were arranged as were the services of the Georgia State Patrol.

IV. Plans for September

A meeting of production personnel, including the Georgia State Patrol, is to be held September 8, 1980. Filming is to be done September 9 through September 12, 1980. Storyboard and animation work is to be started in September.

Respectfully submitted,

Eugene F. Greneker
Project Director

APPROVED:

J. D. Echard, Chief
Radar Applications Division

EFG/dw



Georgia Institute of Technology

ENGINEERING EXPERIMENT STATION

ATLANTA, GEORGIA 30332

November 19, 1980

National Highway Traffic
Safety Administration
NTS-13, Room 5118
400 7th Street, S.W.
Washington, D.C. 20590

Attention: Mr. Ron Engle
Contract Technical Monitor

Subject: Research Project "Development of a Video Tape Training Course on the Error Sources Produced by Law Enforcement Speed Timing Radars,"
Georgia Tech Project A-2676.

Gentlemen:

This is the final technical progress report to be submitted. This report contains data on project progress and financial information pertaining to the charges incurred through the date of October 31, 1980. This is the first month that the complete financial data has been available from the Georgia Tech Accounting System.

I. Present Status

The production is presently in a "hold" condition. No time is being charged to the project. A 30 minute modified script was sent to NHTSA on November 5, 1980 for approval. The video tape running time has been reduced to the original contracted time of 30 minutes because of unanticipated production problems.

The following steps have been taken in the production of the overall video production.

1. All film has been shot. The primary filming was completed over a one week period. A second session of filming was conducted to reshoot several scenes that did not turn out during the first filming. The Georgia State Patrol participated during both of these productions.
2. The major portion of the film has been edited. The make-up footage must be added to the incomplete scenes to complete editing. The addition of the make-up scenes to the main film will not be done until the modified 30 minute script is approved by NHTSA. Following approval from NHTSA, both the make-up scenes and finished edited segments, will be final edited to cover NHTSA changes.

3. There is no resolution on where the tape will be produced. The Center for Media Based Instruction at Georgia Institute of Technology utilizes 3/4 inch low band video tape exclusively as a copy medium. The plan was to produce all film segments on tape one. The studio narrator would be produced on tape two. The special effects would be on tape three. The master would be assembled from these tapes mixed into their proper slots. A fourth tape of B-roll film would be utilized at proper times to cover the A-roll film scenes. After expending approximately 8 hours studio time and 4 hours shooting the special effects it was determined that a third generation 3/4 inch low band format would not reproduce with the fidelity that NHTSA or Georgia Tech would be willing to distribute.

At the suggestion of NHTSA, Georgia Tech requested an estimate from a commercial production studio as to the cost of producing a 30 minute video tape using a one inch high band video tape format. The estimate was approximately \$5,000 for 30 hours of required studio time. This estimate included 10 hours of full studio time for live on camera narration, 10 hours of announce booth voice over film production and 10 hours of special effects and mixing time. The Georgia Tech Media Based Instruction Center estimate for this same 30 hour production time was only \$1,800. Given this large differential in production cost, a one hour production that would require additional higher priced studio time was thought not to be in NHTSA's best interest. Thus, a modified 30 minute script was prepared utilizing the best of the hour already written and filmed.

Georgia Tech's Recommendation

We are, therefore, recommending that NHTSA consider the modified 30 minute script submitted November 5, 1980 as the final script; that the due date for the productions' deadline be extended to a time frame of 45 days after the modified script is returned to Georgia Tech in order to cover problems with studio availability; and that the one inch format be utilized at the increased cost.

Present Activity

Georgia Tech is preparing a 3rd generation 3/4 inch format tape for NHTSA review. This tape will be produced to allow NHTSA to evaluate the quality that might be expected if Georgia Tech proceeds with the NHTSA production using the Georgia Tech Center for Media Based Instruction facilities.

Respectfully submitted.

Gene Greneker
Project Director

EFG/cp

APPROVED:

J. D. Echard, Division Chief
Radar Applications Division

PROJECT A-2676 CHARGE SUMMARY
AS CHARGED THROUGH OCTOBER 31, 1980

| | | |
|------|---|------------------|
| I. | Personal Services | |
| | Total Budget | \$13,081.00 |
| | Total Charges through 10/31/80 | <u>12,927.04</u> |
| | Total PS Remaining | \$ 153.96 |
| II. | Total Overhead | |
| | To Be Charged at 73% of Wages | \$ 9,941.00 |
| | Actual Overhead Charged | <u>9,828.42</u> |
| | Remaining Overhead | \$ 112.58 |
| III. | Total Retirement | |
| | To Be Charged at a Rate of 11.11% | \$ 1,375.00 |
| | Total Retirement Charged through 10/31/80 | <u>1,436.00</u> |
| | | \$ - 61.00 |
| IV. | Total Materials and Supplies | |
| | Including Contract Facilities & Personal | \$ 6,100.00 |
| | Expended | <u>4,665.47</u> |
| | | \$ 1,434.53 |
| V. | Travel Budget | \$ 300.00 |
| | Expended through 10/31/80 | <u>163.93</u> |
| | Total Remaining | \$ 136.00 |
| | Total Project Balance | \$ 1,776.07 |