STATEMENT OF
ELMER B. STAATS, COMPTROLLER GENERAL OF THE UNITED STATES
BEFORE THE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
OF THE
COMMITTEE ON PUBLIC WORKS--HOUSE OF REPRESENTATIVES
ON
PROBLEMS IN IMPLEMENTING THE HIGHWAY SAFETY IMPROVEMENT PROGRAM ADMINISTERED BY THE FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

WE ARE PLEASED TO APPEAR TODAY AT THE REQUEST OF THE SUBCOMMITTEE TO DISCUSS OUR VIEWS ON THE MANNER IN WHICH THE FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, HAS CARRIED OUT ITS HIGHWAY SAFETY IMPROVEMENT PROGRAM.

WE RECENTLY COMPLETED A REVIEW OF THIS PROGRAM AT THE FEDERAL HIGHWAY ADMINISTRATION'S HEADQUARTERS IN WASHINGTON, D.C., AND IN SIX STATES--COLORADO, ILLINOIS, MISSOURI, MONTANA, OREGON, AND UTAH. OUR PURPOSE WAS TO GAUGE THE RESULTS OF THE FEDERAL HIGHWAY ADMINISTRATION'S ATTEMPTS TO DEVELOP A VOLUNTARY NATIONAL PROGRAM TO ALLEVIATE THE HIGHWAY HAZARD PROBLEM. THE RESULTS OF OUR REVIEW ARE CONTAINED IN OUR REPORT TO THE SUBCOMMITTEE ENTITLED "PROBLEMS IN IMPLEMENTING THE HIGHWAY SAFETY IMPROVEMENT PROGRAM."
AN ANNOUNCED INTENTION OF THE DEPARTMENT OF TRANSPORTATION IS TO MAKE THE NATION'S HIGHWAYS AS SAFE AS POSSIBLE. FEDERAL AND STATE HIGHWAY EXPERTS AND INDEPENDENT ORGANIZATIONS CONCERNED WITH HIGHWAY SAFETY GENERALLY AGREE THAT THE NATION'S HIGHWAYS HAVE DESIGN DEFECTS AND ROADSIDE FEATURES THAT ARE HAZARDOUS TO THE MOTORING PUBLIC AND ARE CONTRIBUTING TO A SIGNIFICANT NUMBER OF HIGHWAY ACCIDENTS AND FATALITIES EACH YEAR. DATA PUBLISHED BY THE NATIONAL SAFETY COUNCIL SHOW THAT HIGHWAY-RELATED FACTORS HAVE BEEN PRIMARY OR CONTRIBUTING CAUSES IN ABOUT ONE-THIRD OF THE DEATHS RESULTING FROM TRAFFIC ACCIDENTS DURING THE 7 YEARS ENDED DECEMBER 1970. THERE WERE ABOUT 55,000 TRAFFIC DEATHS REPORTED IN 1970.

THE IDENTIFICATION AND CORRECTION OF HAZARDOUS SPOTS ON FEDERAL-AID HIGHWAYS HAS BEEN THE PRIMARY PURPOSE OF THE HIGHWAY SAFETY IMPROVEMENT PROGRAM. THE PROGRAM STARTED IN 1964 AFTER THE PRESIDENT EXPRESSED CONCERN OVER THE LARGE NUMBER OF HIGHWAY FATALITIES, AND DESIGNATED THE FEDERAL HIGHWAY ADMINISTRATION AS THE FOCAL POINT FOR AN ACCELERATED ATTACK ON TRAFFIC ACCIDENTS AND FATALITIES. SPECIAL ATTENTION WAS TO BE GIVEN TO HAZARDS ON HIGHWAYS HAVING HIGH ACCIDENT EXPERIENCE. THE PROGRAM WAS TO BE CARRIED OUT UNDER THE FEDERAL-AID HIGHWAY PROGRAM AND THE COST WAS TO BE SHARED UNDER THE SAME GENERAL PROCEDURE USED FOR REGULAR HIGHWAY CONSTRUCTION PROJECTS.
IN THE BEGINNING, THE HIGHWAY SAFETY IMPROVEMENT PROGRAM WAS ESSENTIALLY A "SPOT" IMPROVEMENT PROGRAM THAT EMPHASIZED THE IMPORTANCE OF USING ACCIDENT DATA TO IDENTIFY AND INVENTORY HAZARDOUS HIGHWAY LOCATIONS, AND SCHEDULING SAFETY IMPROVEMENT WORK ON THE BASIS OF ASSIGNED PRIORITIES. THE WORK COULD INCLUDE, FOR EXAMPLE, IMPROVEMENTS THROUGH CHANGES SUCH AS WIDENING, REGRADING, RELOCATING, OR REALIGNING IDENTIFIED DANGEROUS SPOTS ON THE HIGHWAYS, OR INSTALLING OR RELOCATING APPURTENANCES SUCH AS SIGNS, SIGNAL CONTROLS, AND MARKING DEVICES.

THE PROGRAM WAS DIRECTED TOWARD FEDERAL-AID HIGHWAYS OTHER THAN INTERSTATE UNTIL JANUARY 1966 WHEN THE HIGHWAY ADMINISTRATION MODIFIED ITS POLICY TO INCLUDE THE INTERSTATE SYSTEM AS WELL. A FURTHER POLICY CHANGE CAME IN 1967 WHEN THE HIGHWAY ADMINISTRATION ENDORSED A REPORT ISSUED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS ON THE SAFETY CHARACTERISTICS OF THE INTERSTATE SYSTEM AND OTHER HIGH-SPEED HIGHWAYS. THIS REPORT WAS ENTITLED "HIGHWAY DESIGN AND OPERATIONAL PRACTICES RELATED TO HIGHWAY SAFETY". THE REPORT, COMMONLY REFERRED TO AS THE "YELLOW BOOK", RECOMMENDED THAT CERTAIN IDENTIFIED TYPES OF ROADSIDE HAZARDS BE REMOVED FROM EXISTING ROADS AND THAT NEW HIGHWAYS BE ENGINEERED WITH SAFETY AS A MAJOR CRITERION.
YELLOW-BOOK TYPE IMPROVEMENTS ON EXISTING INTERSTATE HIGHWAYS ARE BEING CARRIED OUT. EXCEPT FOR MAJOR RECONSTRUCTION PROJECTS, HOWEVER, SUCH IMPROVEMENTS ESSPENTIONALLY INVOLVE A GENERAL UPGRADE OF STRETCHES OF INTERSTATE HIGHWAY AND ARE NOT REQUIRED TO BE BASED ON AN ANALYSIS OF SPECIFIC LOCATIONS ALONG THE INTERSTATE SYSTEM WHERE ACCIDENTS OCCURRED. FOR EXAMPLE, HIGHWAY SIGNS WITH FIXED SUPPORTS ARE RECOGNIZED AS A TYPE OF HAZARD WHICH CAN BE ALLEVIATED BY REPLACING THE FIXED SUPPORTS WITH BREAKAWAY SUPPORTS WITHOUT THE NEED TO DEMONSTRATE THAT EACH SIGN REPLACED HAD BEEN INVOLVED IN ACCIDENTS.

FROM THE DATE OF THE HIGHWAY ADMINISTRATION POLICY CHANGE AUTHORIZING YELLOW-BOOK WORK ON EXISTING INTERSTATE HIGHWAYS AS PART OF THE SAFETY IMPROVEMENT PROGRAM, THE PROPORTION OF FEDERAL-AID FUNDS USED FOR SAFETY IMPROVEMENTS ON THE INTERSTATE SYSTEM INCREASED SUBSTANTIALLY WHILE THE PROPORTION USED FOR SAFETY IMPROVEMENTS ON NON-INTERSTATE HIGHWAYS DECREASED. YET WE NOTED THAT THE DEATH AND INJURY RATES ON NON-INTERSTATE HIGHWAYS FAR EXCEED THE RATES ON THE INTERSTATE SYSTEM. WE RECOGNIZE THAT YELLOW-BOOK WORK PROMOTES HIGHWAY SAFETY, BUT WE BELIEVE THAT PRIMARY EMPHASIS NEEDS TO BE GIVEN TO DEVELOPING AND EXPANDING THE HIGH-ACCIDENT SPOT IMPROVEMENT CONCEPT ON NON-INTERSTATE HIGHWAYS.

EIGHT YEARS AFTER ITS INCEPTION, THE HIGHWAY SAFETY IMPROVEMENT PROGRAM HAS YET TO BECOME A FULLY EFFECTIVE MAJOR NATIONAL PROGRAM. VARYING DEGREES OF STATE COMPLIANCE WITH
HIGHWAY ADMINISTRATION PROGRAM GUIDANCE HAVE PRODUCED A FRAGMENTED APPROACH TOWARD SYSTEMATICALLY IDENTIFYING AND CORRECTING HAZARDOUS HIGHWAY LOCATIONS. WE BELIEVE THAT THIS FRAGMENTED APPROACH OCCURRED BECAUSE THE HIGHWAY ADMINISTRATION HAS NOT REQUIRED THE STATES TO RESERVE A SPECIFIC PORTION OF FEDERAL-AID HIGHWAY FUNDS FOR USE IN THE SAFETY IMPROVEMENT PROGRAM AND BECAUSE QUANTIFIED GOALS HAVE NOT BEEN ESTABLISHED.


MINUTES OF A SPECIAL MEETING SUBSEQUENTLY HELD BY THE ASSOCIATION'S SELECT COMMITTEE ON TRAFFIC SAFETY IN NOVEMBER 1970 INDICATED THAT THERE WAS LITTLE AGREEMENT ON THE DIRECTION THAT A SPECIALLY-FUNDED HIGHWAY SAFETY IMPROVEMENT PROGRAM SHOULD TAKE, EVEN THOUGH THE EXISTING PROGRAM HAD BEEN IN EFFECT FOR ALMOST 7 YEARS.
All six of the states included in our review were doing some type of work to correct highway hazards. Some of this work consisted of improving the overall safety of the interstate system and other high-speed highways as provided in the yellow book. Some involved wholly state-funded safety projects, including those carried out by state road-maintenance forces. In addition, all but one of the six states were programming federal-aid safety projects specifically to correct hazardous spots involved in highway accidents. Overall, however, the states were not routinely reserving and using federal-aid highway funds to further a systematic program to correct identified hazardous locations.

We believe that an effective program of highway spot improvement is dependent upon

--- routinely setting aside and using funds specifically to eliminate hazardous conditions at highway locations,
--- identifying hazardous locations on the basis of actual accident experience, and
--- correcting hazardous locations in accordance with priorities based on potential for accident reduction in relation to the cost of the correction.

reservation of funds

A highway administration study shows that the benefits obtainable from highway safety improvement work, in terms of lives saved, was about five times greater than that of regular highway construction work. In terms of injuries avoided, it was more than three times greater. The highway administration,
HOWEVER, HAS NOT RESERVED FEDERAL-AID HIGHWAY CONSTRUCTION FUNDS SPECIFICALLY FOR HIGHWAY SAFETY PROJECTS. NEITHER HAD THE SIX STATES IN OUR REVIEW ROUTINELY SET ASIDE AND USED A DESIGNATED PART OF THEIR FEDERAL-AID HIGHWAY FUNDS FOR THIS PURPOSE.

IN 1965, THE HIGHWAY ADMINISTRATION URGED THE STATES TO INVENTORY THE MOST HAZARDOUS LOCATIONS ON THE FEDERAL-AID PRIMARY AND SECONDARY HIGHWAY SYSTEMS AND TO IMPROVE MOST, IF NOT ALL, OF THESE LOCATIONS WITHIN 4 YEARS. THE HIGHWAY ADMINISTRATION DID NOT CARRY THROUGH ON THIS PLAN, BUT IN MARCH 1969 IT REVISED ITS POLICY AND URGED THE STATES TO MAINTAIN A CONTINUING SAFETY IMPROVEMENT PROGRAM. A SPECIFIC FUNDING LEVEL WAS NOT SET AT THAT TIME, BUT IN APRIL 1971 THE HIGHWAY ADMINISTRATION URGED THE STATES TO SET ASIDE 10 PERCENT OF THEIR ANNUAL PRIMARY AND SECONDARY HIGHWAY TRUST FUND AUTHORIZATIONS FOR PROJECTS TO ELIMINATE OR REDUCE SAFETY HAZARDS ON FEDERAL-AID HIGHWAYS OTHER THAN INTERSTATE HIGHWAYS. FROM INCEPTION OF THE PROGRAM THROUGH DECEMBER 1970 THE SIX STATES IN OUR REVIEW REPORTED THAT THEY HAD SPENT ABOUT 3 PERCENT OF THEIR TOTAL FEDERAL-AID HIGHWAY FUNDS AVAILABLE FOR PROJECTS UNDER THE HIGHWAY SAFETY IMPROVEMENT PROGRAM. FOR ALL 50 STATES, THE PERCENTAGE WAS 2.1.

FOR CALENDAR YEAR 1971, ONE OF THE SIX STATES DID COMMIT $10 MILLION OF ITS STATE AND FEDERAL HIGHWAY FUNDS SPECIFICALLY FOR HIGHWAY SAFETY IMPROVEMENT PROJECTS. ABOUT $5.5 MILLION ACTUALLY WAS USED FOR THIS PURPOSE. THE REMAINING FUNDS WERE USED FOR OTHER HIGHWAY WORK, AND THE HIGHWAY SAFETY IMPROVEMENT PROJECTS FOR WHICH THESE FUNDS WERE TO HAVE BEEN USED WERE RESCHEDULED FOR THE FOLLOWING YEAR. NONE OF THE OTHER
STATES IN OUR REVIEW COMMITTED, OR ATTEMPTED TO COMMIT, A SPECIFIC AMOUNT OF FUNDS FOR HIGHWAY SAFETY IMPROVEMENTS.

IDENTIFYING HAZARDOUS LOCATIONS

INVENTORIES OF IDENTIFIED HAZARDOUS LOCATIONS ARE NEEDED TO PROVIDE THE HIGHWAY ADMINISTRATION AND THE STATES WITH A BASIS FOR DETERMINING (1) THE MAGNITUDE OF THE OVERALL HIGHWAY HAZARD PROBLEM IN THE STATES, (2) THE TOTAL ESTIMATED COST OF CORRECTING THE HAZARDS, AND (3) THE ORDER AND PACE AT WHICH SAFETY IMPROVEMENT WORK SHOULD PROCEED TO HAVE A TIMELY AND SIGNIFICANT IMPACT ON REDUCING HIGHWAY ACCIDENTS, DEATHS, AND INJURIES.

EACH OF THE SIX STATES HAD DEVELOPED A SYSTEM WHICH, IN PART, MET HIGHWAY ADMINISTRATION CRITERIA FOR A SYSTEMATIC HIGHWAY SAFETY IMPROVEMENT PROGRAM. FOR EXAMPLE, ALL SIX STATES WERE PREPARING SUMMARIES SHOWING HIGHWAY ACCIDENTS BY LOCATIONS. NONE OF THESE STATES, HOWEVER, HAD A COMPREHENSIVE INVENTORY OF CORRECTABLE HAZARDOUS LOCATIONS THAT WAS UPDATED SYSTEMATICALLY AND USED ROUTINELY FOR DEVELOPING AND CARRYING OUT SAFETY IMPROVEMENT PROJECTS.

PRIORITY CORRECTION OF IDENTIFIED LOCATIONS

BECAUSE ENOUGH MONEY TO DO ALL NECESSARY SAFETY IMPROVEMENT WORK Seldom IS AVAILABLE, STATES NEED TO ESTABLISH PRIORITIES FOR IDENTIFIED PROJECTS SO THAT THOSE HAVING THE GREATEST ACCIDENT REDUCTION POTENTIAL FOR EACH DOLLAR SPENT ARE UNDERTAKEN FIRST.
THREE OF THE SIX STATES WERE NOT RANKING POSSIBLE SAFETY
IMPROVEMENT PROJECTS ON A STATE-WIDE BASIS IN TERMS OF THE
HIGHEST POTENTIAL BENEFIT AT THE LOWEST RELATIVE COST. THE
OTHER THREE STATES HAD DEVELOPED PRIORITY LISTINGS FOR THEIR
SAFETY IMPROVEMENT PROJECTS BUT WERE NOT SCHEDULING AND CARRYING
OUT THEIR SAFETY WORK FULLY ON THAT BASIS.

WITHOUT AN ADEQUATE PRIORITY SYSTEM, NEITHER THE HIGHWAY
ADMINISTRATION NOR THE STATES HAVE REASONABLE ASSURANCE THAT
THE SAFETY IMPROVEMENT PROJECTS--SELECTED ON A CASE-BY-CASE
BASIS BY THE STATES AND APPROVED BY THE HIGHWAY ADMINISTRATION--
REPRESENT THE MOST WORTHWHILE USE OF SAFETY IMPROVEMENT FUNDS.

TO ILLUSTRATE, ONE STATE DETERMINED THAT TWO BRIDGES
SHOULD BE IMPROVED IN THE INTEREST OF SAFETY. THE BRIDGES,
INCLUDING APPROACHES, WERE RECONSTRUCTED IN SEPTEMBER 1969
AT A TOTAL COST OF ABOUT $616,000. ONE OF THE STRUCTURES
SERVED LESS THAN 200 VEHICLES A DAY; THE OTHER SERVED 2,700
VEHICLES A DAY. DURING THE 3-YEAR PERIOD PRECEDING RECONSTRUC-
TION, A TOTAL OF EIGHT ACCIDENTS HAD OCCURRED AT BOTH LOCATIONS,
INCLUDING TWO INJURY ACCIDENTS AND SIX PROPERTY DAMAGE ACCIDENTS.
AT THE SAME TIME A STRETCH OF HAZARDOUS ROAD CONTAINING A NUMBER
OF DANGEROUS CURVES THAT COULD HAVE BEEN IMPROVED AT AN ESTIMATED
COST OF ABOUT $700,000 REMAINED UNCORRECTED. THIS ROAD SERVED
2,700 VEHICLES A DAY. DURING THE SAME 3-YEAR PERIOD, 38
ACCIDENTS OCCURRED ON THIS ROAD SECTION INCLUDING ONE FATAL
ACCIDENT, 32 INJURY ACCIDENTS, AND FIVE PROPERTY DAMAGE ACCIDENTS.

WE RECOGNIZE THAT YELLOW-BOOK WORK PROMOTES HIGHWAY SAFETY. HOWEVER, AS PREVIOUSLY INDICATED, THIS WORK IS DIRECTED PRIMARILY TOWARD CORRECTING GENERALLY RECOGNIZED TYPES OF HAZARDS RATHER THAN TOWARD CORRECTION OF IDENTIFIED HAZARDOUS LOCATIONS AND, THEREFORE, VARIES FROM THE SPOT IMPROVEMENT CONCEPT WHICH IS BASED ON ACCIDENT DATA ANALYSIS.

THE LIMITED PROGRESS MADE BY THE DEPARTMENT'S FEDERAL
HIGHWAY ADMINISTRATION IN THE LAST 8 YEARS TO IMPLEMENT A MAJOR
NATIONAL PROGRAM OF HIGHWAY SPOT IMPROVEMENT RAISES A QUESTION
AS TO WHETHER THE DEPARTMENT HAS TAKEN ALL FEASIBLE ACTION TO
IMPLEMENT A HIGH-PRIORITY PROGRAM TO IDENTIFY AND CORRECT HAZARDOUS HIGHWAY LOCATIONS. AN OPPORTUNITY EXISTS TO MATERIALLY
IMPROVE THE NATION'S TRAFFIC SAFETY RECORD IF THE GOVERNMENT
WILL PROVIDE STRONGER PROGRAM LEADERSHIP.

IN SUMMARY, WE BELIEVE THAT SETTING ASIDE A SPECIFIC PART
OF FEDERAL-AID HIGHWAY FUNDS TO BE USED ANNUALLY FOR THE ELIMINATION OR CORRECTION OF HAZARDOUS HIGHWAY LOCATIONS WOULD PROMOTE
GREATER EFFORTS BY THE STATES TO IMPROVE HIGHWAY SAFETY AND WOULD
GIVE THE CORRECTION OF HAZARDOUS HIGHWAY LOCATIONS THE STATUS OF
A MAJOR NATIONAL PROGRAM IN LINE WITH THE GROWING CONGRESSIONAL,
DEPARTMENTAL, AND PUBLIC CONCERN OVER THE LARGE NUMBER OF HIGHWAY FATALITIES, INJURIES, AND ACCIDENTS.

THE DEGREE OF SUCCESS OF A HIGHWAY SAFETY IMPROVEMENT PROGRAM IS ALSO DEPENDENT ON THE STATES' DEVELOPMENT OF COMPREHENSIVE INVENTORIES OF CORRECTABLE HIGHWAY HAZARDS SYSTEMATICALLY UPDATED THROUGH ACCIDENT ANALYSIS AND ROUTINELY USED FOR DEVELOPING AND CARRYING OUT PROJECTS TO CORRECT THE HAZARDS IN ACCORDANCE WITH ASSIGNED PRIORITIES THAT WOULD PROVIDE THE GREATEST BENEFITS FOR EACH DOLLAR SPENT.
THE SUBCOMMITTEE MAY WISH TO CONSIDER THE NEED FOR LEGIS-
LATIVE ACTION TO ESTABLISH A VIABLE FEDERAL SAFETY IMPROVE-
MENT PROGRAM. THE STATES AND THE DEPARTMENT NEED TO DETERMINE
THE MAGNITUDE OF THE OVERALL HIGHWAY HAZARD PROBLEM IN THE
STATES IN TERMS OF

--THE AMOUNT AND TYPE OF IMPROVEMENTS NEEDED;

--THE TOTAL ESTIMATED COST OF SUCH IMPROVEMENTS; AND

--THE ORDER AND PACE AT WHICH SAFETY IMPROVEMENT WORK

SHOULD PROCEED TO HAVE A TIMELY AND SIGNIFICANT IMPACT

ON HIGHWAY ACCIDENTS, DEATHS, AND INJURIES.

THIS INFORMATION COULD PROVIDE THE SUBCOMMITTEE WITH A BASIS
FOR ESTABLISHING THE LEVEL OF FUNDING AT WHICH THE PROGRAM
SHOULD BE CARRIED OUT.

THIS CONCLUDES MY PREPARED STATEMENT, MR. CHAIRMAN. WE
SHALL BE PLEASED TO RESPOND TO ANY QUESTIONS THE MEMBERS OF
THE SUBCOMMITTEE MAY HAVE.