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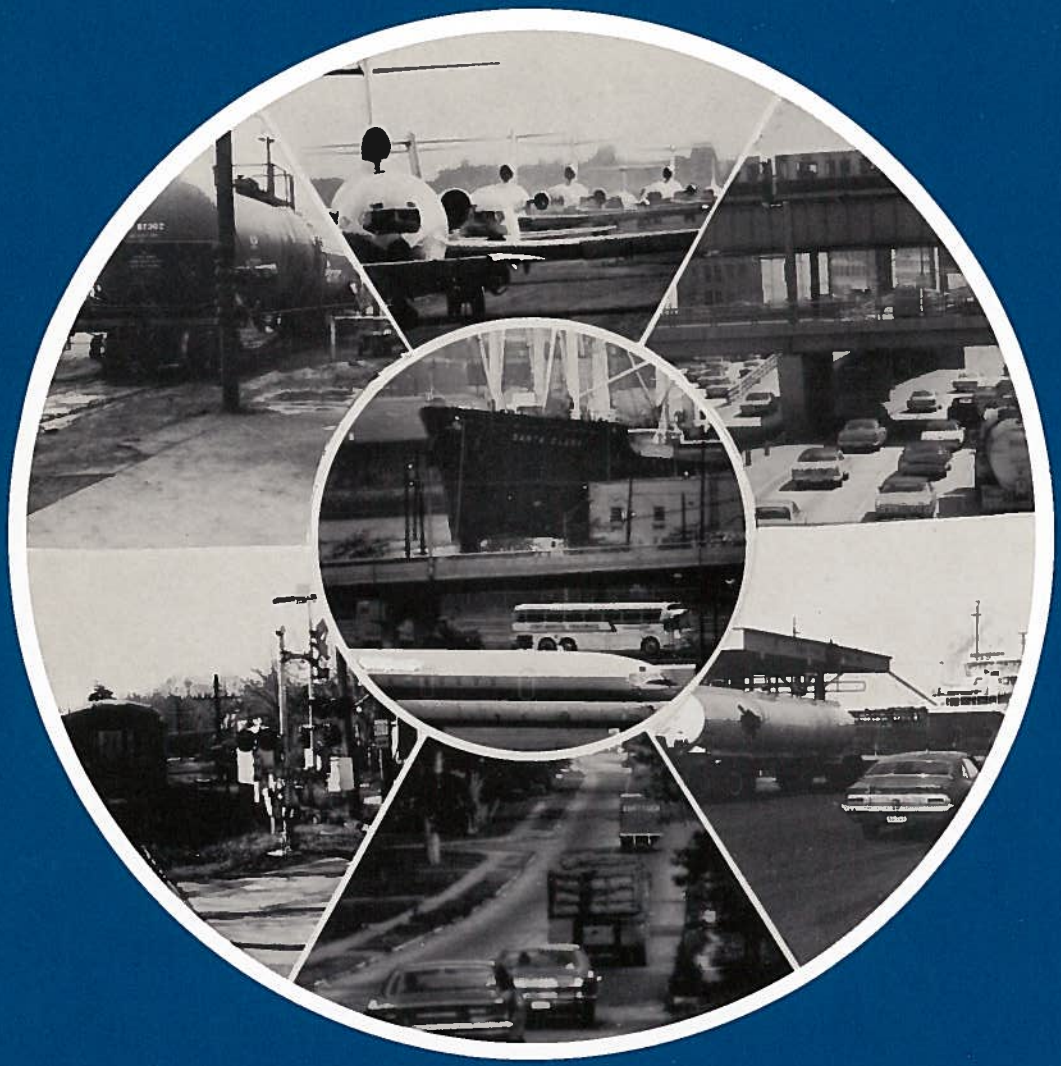
U.S. Department
of Transportation

**Research and
Special Programs
Administration**

Transportation Safety Information Report

First Quarter 1984



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15. Supplementary Notes

16. Abstract

The "Transportation Safety Information Report" is a compendium of selected national-level transportation safety statistics for all modes of transportation. The report presents and compares data on a monthly and quarterly basis for transportation fatalities, accidents, and injuries for the current and preceding year. The report is based on data input to the Transportation Information Safety System (TRANSIS) by representatives in each of DOT's modal administrations and the National Transportation Safety Board.

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TABLE OF CONTENTS

TRANSIS REPRESENTATIVES AND MANAGEMENT

AGENCY	ROUTING SYMBOL	TELEPHONE	ROOM
UNITED STATES COAST GUARD			
LCDR Tony Hart	G-MMI-3	426-6251	1404(TRPT)
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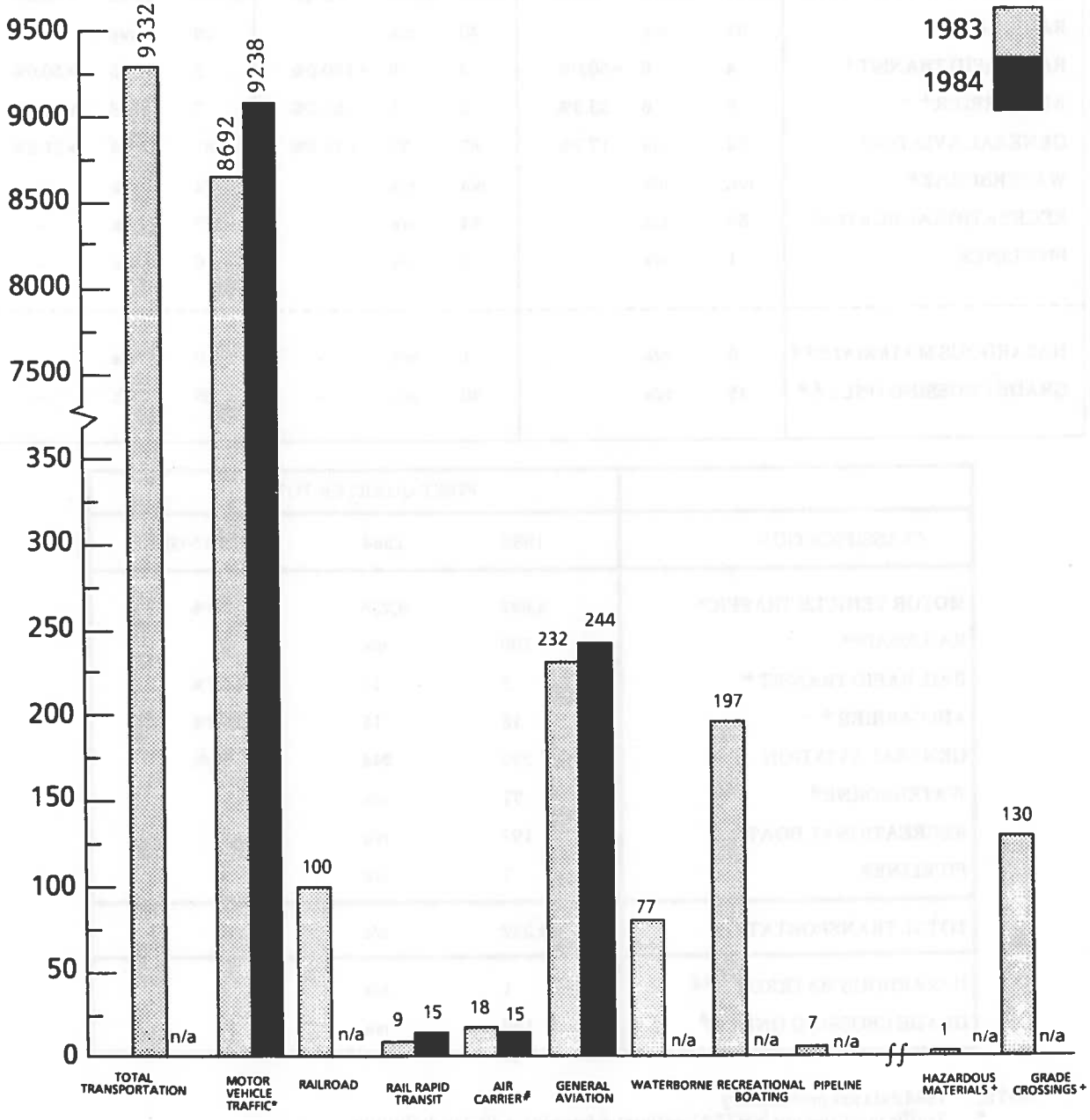
Marjorie Saccoccio	DTS-32	(FTS 837-2450)	1162(TSC)

SUMMARY STATISTICS OF TRANSPORTATION SAFETY

CHART 1.

TRANSPORTATION FATALITIES BY MODE
FIRST THREE MONTHS, 1983 - 1984



Note: 1984 Data are preliminary

* Traffic fatalities are NHTSA's estimates based on a 30-day definition (see Glossary)

\# Air Carrier includes Commuter Carriers and Air Taxis.

\+ These fatalities are included in other modes and Total Transportation.

HIGHWAY

- Motor Vehicle Traffic fatalities increased 6.3 percent in the first quarter of 1984 when compared with the same quarter of 1983. However, fatalities were still 20.0 percent below the totals for the first quarter in the base year 1973.

- Preliminary estimates of travel during the first quarter of 1984 show an increase of 4.1 percent over the same 1983 period.

TABLE 2.

HIGHWAY FATALITIES FOR 1984 COMPARED WITH 1983 AND 1973

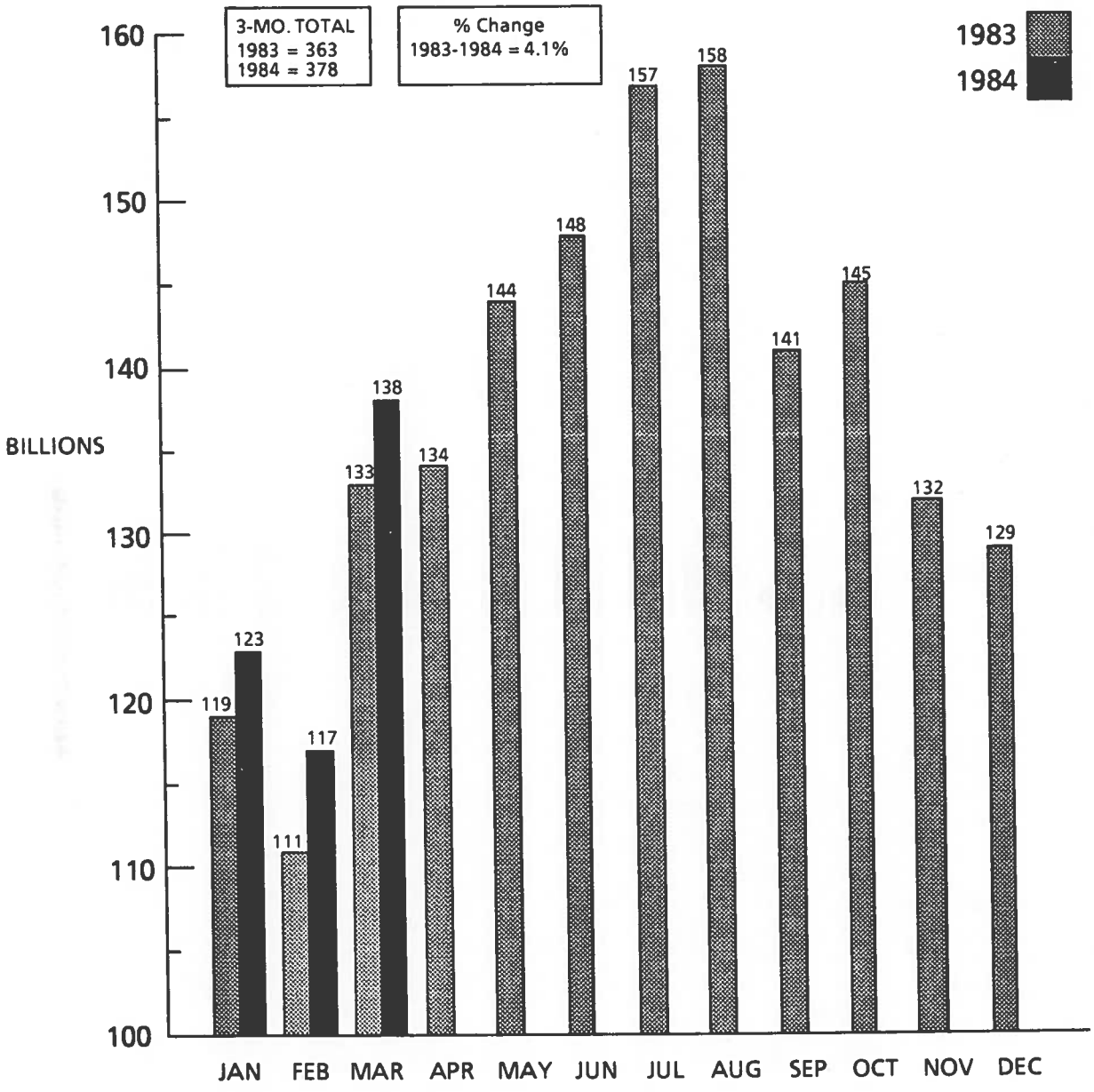
	1973	1983	1984	% Change 1973-1984	% Change 1983-1984
JAN	3,770	2,901	2,911	-22.8	+0.3
FEB	3,497	2,709	2,936	-16.0	+8.4
MAR	4,286	3,082	3,391	-20.9	+10.0
Total First Quarter	**11,553**	**8,692**	**9,238**	**-20.0**	**+6.3**

NOTE: Figures are based on 30-day fatality definition (see Glossary).

SOURCE: 1973 Data from State Accident Summaries (adjusted to 30-day definition).
1983-1984 Data are estimates from NHTSA's Fatal Accident Reporting System (FARS).

CHART 3.

MOTOR VEHICLE MILES OF TRAVEL, 1983 - 1984P



P = Preliminary

SOURCE: FHWA, Office of Highway Safety, HHS-22.

RAIL RAPID TRANSIT

- Derailments were the predominant type of Rail Rapid Transit (RRT) revenue train accidents in the first quarter of 1984. Of the 16 train accidents reported in this quarter, six were of this type (38 percent). In the first quarter of 1983, collisions with persons were the predominant type of revenue train accidents. Seven of the 15 train accidents (47 percent) resulted from collisions with persons during this quarter.

  The following table summarizes train accidents by type.

	1983 FIRST QUARTER	1984* FIRST QUARTER
Collision with Other Train	0	1
Collision with Obstacle	0	2
Collision with Person	7	2
Derailment	5	6
Fire	2	2
Rail-Highway Crossing	1	3
Total	**15**	**16**

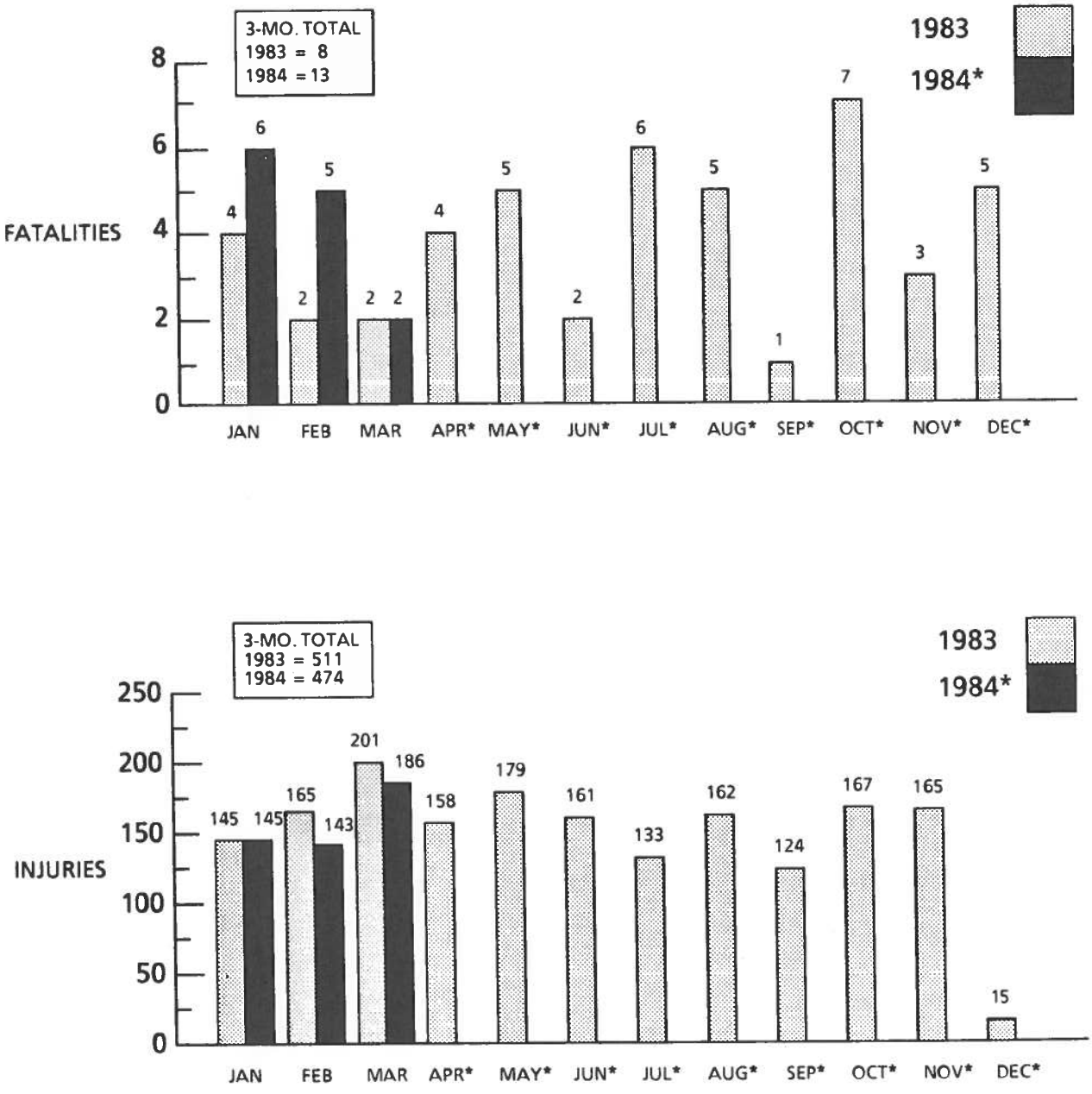
- Approximately 75 percent of all personal casualties (injuries and fatalities) in 1983 and 1984 resulted from persons slipping and falling. Of the 527 casualties reported in the first quarter of 1983, 397 resulted from slips and falls; while in the first quarter of 1984, 369 of the 492 casualties reported were also from slips and falls.

* Preliminary data prior to verification.

Source: TSC, Transit Safety and Security Divison, DTS-65.

CHART 5.

RRT NONTRAIN FATALITIES AND INJURIES, 1983 - 1984



* Preliminary data prior to verification.

SOURCE: TSC, Transit Safety and Security Division, DTS-65, SIRAS.

AVIATION

Beginning in January 1982, the National Transportation Safety Board began reporting aviation accident data according to the Federal Aviation Regulations under which the aircraft was operated at the time of an accident. Revenue operations of Air Carriers, Commercial Operators and deregulated All Cargo Carriers, using large aircraft, are conducted under 14 CFR 121. Commuter Air Carriers' (scheduled) and On-Demand Air Taxi Operators' (unscheduled) revenue operations (using small aircraft) are conducted under 14 CFR 135. Accidents involving flights not being conducted under either 14 CFR 121 or 14 CFR 135 are grouped by the Safety Board into the "General Aviation" category. It is anticipated that classifying aviation accidents according to the operating rules will better serve aviation safety because they set the minimum levels of such safety-related areas as pilot experience, flight and duty time, and maintenance of aircraft. Further exposure data now obtained from the CAB will be obtainable in less and less detail until the CAB's demise, at which time much of this data will be obtained from the FAA. Therefore, it is appropriate to begin using FAA definitions of such terms as air carriers and general aviation.

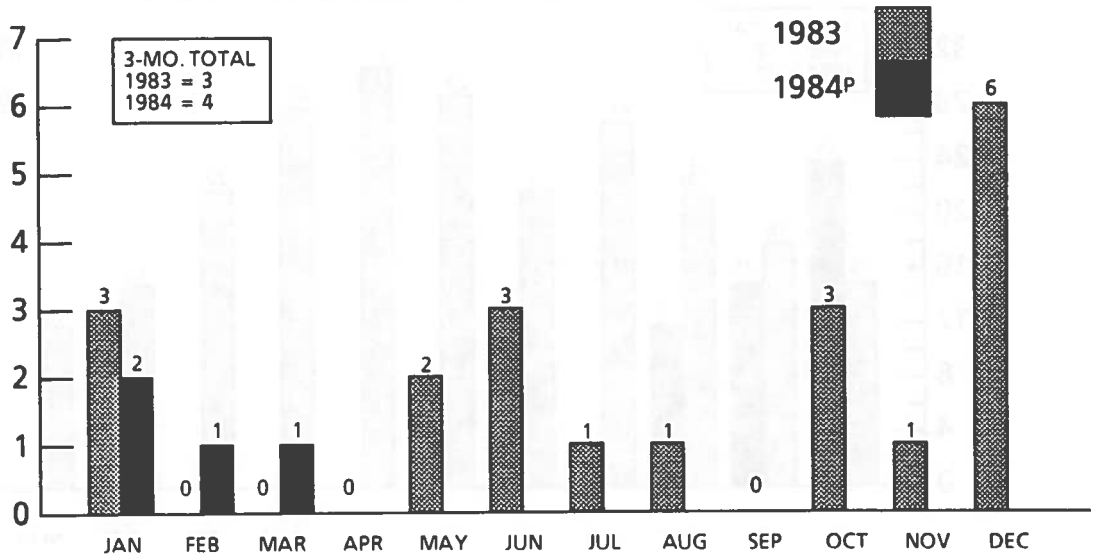
AIR CARRIER

- Four U.S. Air Carrier accidents occurred during the first quarter of 1984; however, no fatalities were reported as a result of these accidents. Only one serious injury was recorded during this period.

- The total number of Near Mid-Air Collision (NMAC's) Reports for the first quarter decreased from 56 in 1983 to 51 in 1984. This decrease represents a 8.9 percent reduction in the number of NMAC's reported.

CHART 8.

U.S. AIR CARRIER ACCIDENTS*, 1983 - 1984



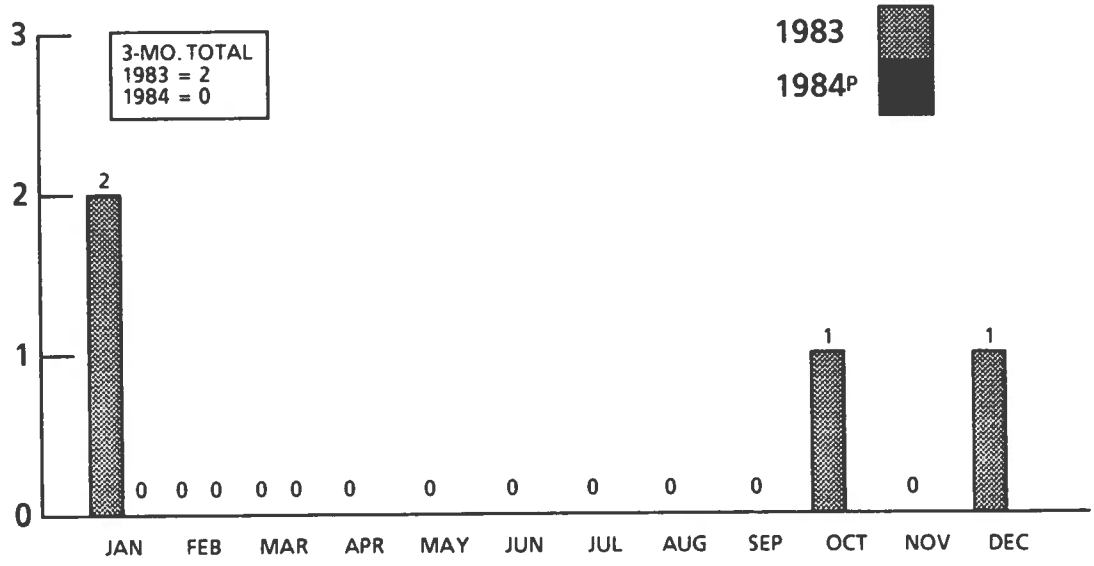
P = Preliminary.

* Large carriers operating under 14 CFR 121 (and 127), all scheduled operations.

SOURCE: NTSB, Safety Studies & Analysis Division, SP-10.

CHART 9.

U.S. AIR CARRIER* FATAL ACCIDENTS, 1983 - 1984



P = Preliminary.

* Large carriers operating under 14 CFR 121 (and 127), all scheduled operations.

SOURCE: NTSB, Safety Studies & Analysis Division, SP-10.

TABLE 3.

COMMUTER CARRIERS* ACCIDENTS, FATALITIES AND INJURIES 1983-1984

	JANUARY		FEBRUARY		MARCH		FIRST QTR. TOTAL	
CLASSIFICATION	1983	1984	1983	1984	1983	1984	1983	1984
FATALITIES	1	0	0	1	0	3	1	4
FATAL ACCIDENTS	1	0	0	1	0	1	1	2
TOTAL ACCIDENTS	2	3	2	6	0	4	4	13
SERIOUS INJURIES	0	0	8	1	0	1	8	2

NOTE: 1984 Data are preliminary.
* All scheduled service operating under 14 CFR 135 (commuter air carriers).

SOURCE: NTSB, Safety Studies & Analysis Division, SP-10.

TABLE 4.

ON-DEMAND AIR TAXIS* ACCIDENTS, FATALITIES AND INJURIES 1983-1984

	JANUARY		FEBRUARY		MARCH		FIRST QTR. TOTAL	
CLASSIFICATION	1983	1984	1983	1984	1983	1984	1983	1984
FATALITIES	4	6	2	0	7	5	13	11
FATAL ACCIDENTS	3	4	1	0	3	2	7	6
TOTAL ACCIDENTS	13	11	5	5	16	8	34	24
SERIOUS INJURIES	1	2	0	1	3	4	4	7

NOTE: 1984 Data are preliminary.
* Non-scheduled service operating under 14 CFR 135.

SOURCE: NTSB, Safety Studies & Analysis Division, SP-10.

TABLE 5.

GENERAL AVIATION FATALITIES BY TYPE OF FLYING 1983-1984

	JANUARY		FEBRUARY		MARCH	
CLASSIFICATION	1983	1984	1983	1984	1983	1984
PERSONAL	62	42	40	51	71	67
BUSINESS	17	14	17	10	4	20
CORPORATE/EXECUTIVE	2	4	0	1	0	0
AERIAL APPLICATION	0	0	0	1	2	0
INSTRUCTIONAL	2	1	2	6	4	1
OTHER	1	8	8	8	0	10
TOTAL GENERAL AVIATION	84	69	67	77	81	98

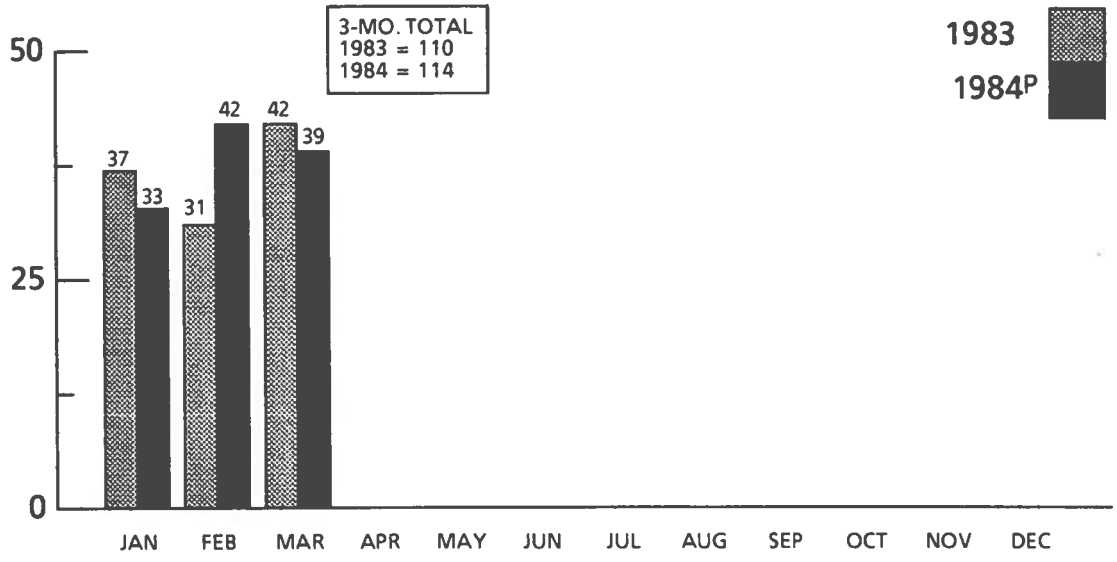
	FIRST QUARTER TOTAL		
CLASSIFICATION	1983	1984	% CHANGE
PERSONAL	173	160	-7.5
BUSINESS	38	44	+15.8
CORPORATE/EXECUTIVE	2	5	+150.0
AERIAL APPLICATION	2	1	-50.0
INSTRUCTIONAL	8	8	0.0
OTHER	9	26	+188.9
TOTAL GENERAL AVIATION	232	244	+5.2

Note: 1984 Data are preliminary.

SOURCE: NTSB, Safety Studies & Analysis Division, SP-10.

CHART 14.

U.S. GENERAL AVIATION* SERIOUS INJURIES, 1983 - 1984



P = Preliminary.
* All operations other than those operations under 14 CFR 121 and 14 CFR 135.

SOURCE: NTSB, Safety Study & Analysis Division, SP-10.

MARINE

WATERBORNE

The Commercial Marine Division of the Coast Guard does not have first quarter 1984 information available at this time since many of the marine casualties are still being investigated or are in various stages of completion. However, there were two noteworthy casualties which occurred in the first quarter 1984 which are described below.

- On February 26, 1984, the U.S. tankship AMERICAN EAGLE was underway in ballast from Savannah, Georgia to Port Arthur, Texas, when an explosion occurred in the cargo tanks while the vessel was located 150 miles south southwest of New Orleans, Louisana. Three persons on board were killed and three were seriously injured. Tank cleaning and gas-freeing of the vessel's last cargo of gasoline were being conducted when the explosion occurred. As a result of the explosion, the vessel lost propulsion and suffered extensive damage forward. The vessel was reported in no danger of sinking and commercial salvage tugs were enroute. During the late afternoon of February 27, 1984, offshore supply vessels on the scene reported that the vessel was breaking up and sinking. A Coast Guard helicopter and the supply vessels rescued 20 of the 24 remaining crew members. As a result of the sinking, two additional persons were killed and two are missing.

  The Coast Guard has convened a Marine Board of Investigation. The National Transportation Safety Board is participating in this investigation.

- On the morning of March 9, 1984, the Bahamian passenger cruise liner SCANDINAVIAN SEA departed Port Canaveral, Florida, for a "cruise to nowhere" with 946 persons onboard, including 744 passengers. Later that afternoon, the vessel reported that there was a fire onboard in a stateroom and the vessel was returning to port. Although the fire was reported to be out when the vessel returned to Port Canaveral, it later reflashed and eventually spread to involve three deck areas. Firefighters from local Coast Guard units, Air Force and local fire departments finally extinguished the fire on the afternoon on March 11, 1984. While the vessel sustained extensive fire damage, no serious personnel injuries were incurred.

  A Coast Guard Marine Board of Investigation has been convened and is investigating this casualty. The National Transportation Safety Board is participating in this investigation.

MAJOR DOT SAFETY REGULATIONS

JANUARY 1, 1984 - MARCH 31, 1984

The actions below are summarized from the final rules and regulations published in the Federal Register (FR) during the period covered by this report. These regulations amend the designated titles and sections of the Code of Federal Regulations (CFR).

U.S. COAST GUARD

46 CFR Parts 25, 33, 35, 94, 97, 107, 108, 109, 160, 192, and 196 -- Exposure Suits; Requirements for Mobile Offshore Drilling Units and Other Oceangoing and Coastwise Vessels

These regulations require exposure suits for personnel on board mobile offshore drilling units and on certain tank vessels, cargo and miscellaneous vessels, and oceanographic vessels on ocean and coastwise service. Vessels and units operating in water where the water temperature does not present a severe threat of injury due to exposure are exempted from the requirements. The regulations also permit the carriage of exposure suits in lieu of life preservers on uninspected vessels not carrying passengers for hire. The need for this action arises from casualties in which some of the loss of life might have been prevented if the persons on board had been provided with exposure suits. These regulations are intended to prevent some of the loss of life that can occur when persons are forced to enter the water after abandoning ship. A number of minor revisions to existing regulations are also included. Effective date August 6, 1984. (49 FR 4479, February 7, 1984.)

33 CFR Part 175 -- Visual Distress Signal Equipment Requirements

This rule amends the regulations governing the carriage of visual distress signals on boats. Members of the boating public have expressed considerable confusion over the language in the present regulation that identifies the waters on which visual distress signals are required. The rule has been rewritten to clearly define where the signals are required. Effective date August 27, 1984. (49 FR 7118, February 27, 1984.)

FEDERAL AVIATION ADMINISTRATION

14 CFR Parts 11, 121, 127, 135, and 145 -- Development of Major Repair Data

This amendment extends the effectivity of Special Federal Aviation Regulation (SFAR) No. 36, which provides that repair stations, air carriers, air taxis, and commercial operators of large aircraft may accomplish major repairs using self-developed repair data which have not been specifically approved by the FAA. In addition, the regulation will continue to provide relief for persons from the burden of obtaining FAA approval of repair data on a case-by-case basis and allow time for the FAA to incorporate the SFAR provisions into the regulations. Effective date January 31, 1984. (49 FR 4354, February 3, 1984.)

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

MATERIALS TRANSPORTATION BUREAU

49 CFR Parts 173 and 179 -- Specifications for Railroad Tank Cars Used To Transport Hazardous Materials

This amendment makes changes in the construction and maintenance standards for railroad tank cars used to transport hazardous materials. References to various specification tank cars are to DOT specifications. The changes are as follows:

(1) After December 31, 1986, specification 105 tank cars built before September 1, 1981, that have a capacity exceeding 18,500 U.S. gallons and are carrying a flammable gas, anhydrous ammonia, or ethylene oxide must by equipped with lower half tank head protection (such as a head shield);

(2) After December 31, 1986, specification 105 tank cars built before September 1, 1981, that have a capacity exceeding 18,500 U.S. gallons and are carrying a flammable gas or ethylene oxide must be equipped with either: (a) High temperature thermal insulation (800° material) and safety relief valves sized according to the requirements for specification 112 and 114 tank cars, or (b) high temperature thermal insulation (550° material) and currently installed safety relief valves; and

(3) After December 31, 1986, specification 111 tank cars that have a capacity exceeding 18,500 U.S. gallons and are carrying a flammable gas or ethylene oxide must be equipped with lower half tank head protection and either (a) high temperature thermal insulation (800° material) and safety relief valves sized according to the requirements for specification 112 and 114 tank cars, or (b) high temperature thermal insulation (550° material) and currently installed safety valves.

The rule requires that all large capacity specification 105 and 111 tank cars used to transport specifically identified hazardous materials must be equipped with the same tank head and thermal safety systems that are required on newly built specification 112 and 114 tank cars used to transport those same hazardous materials.

This action is being taken to increase the safety of transportation by rail of hazardous materials. Effective date March 1, 1984. (49 FR 3468, January 27, 1984.)

GLOSSARY

HIGHWAY

Trafficway - is the entire width between property lines, or other boundary lines, of every way or place, of which any part is open to the public for purposes of vehicular travel as a matter of right or custom.

Motorcycle - is a two-wheeled motor vehicle having one or more riding saddles, and sometimes a third wheel for the support of a sidecar. The sidecar is considered a part of the motorcycle. "Motorcycle" includes motorized bicycle, scooter, or tricycle.

Pedalcycle - is a vehicle operated solely by pedals, and propelled by human power.

Includes: Bicycle (any size, with two wheels in tandem), tricycle, unicycle, and sidecar or trailer attached to any of these devices.

Excludes: These devices when towed by a motor vehicle, including hitching.

Pedestrian - is any person not in or upon a motor vehicle or other road vehicle.

Includes: Person afoot, sitting, lying or working upon a land way or place; person in or operating a pedestrian conveyance.

Excludes: Person boarding or alighting from another conveyance, except pedestrian conveyance; person jumping or falling from a motor vehicle in transport.

Motor Vehicle Traffic Accident - is any motor vehicle accident that occurs on a trafficway or that occurs after the motor vehicle runs off the roadway but before events are stabilized.

Motor Vehicle Traffic Fatality - is a death resulting from motor vehicle accident injuries occurring on a trafficway within 30 days of the accident.

Motor Vehicle Occupant - is a driver of or passenger in a motor vehicle other than a motorcycle or motorscooter. For reporting purposes, this category also includes riders of animals, occupants of animal-drawn vehicles, occupants of streetcars, unauthorized riders, etc.

RAILROAD

Rail-Highway Grade Crossing - is a location where one or more railroad tracks cross a public highway, road, or street or a private roadway at grade, including sidewalks and pathways at, or associated with, the crossing.

Train Accident - is a collision, derailment, fire, explosion, act of God, or other event involving operation of railroad on-track equipment which, while it does not necessarily result in a reportable death, injury, or illness, results in more than $4,500 in damages to railroad on-track equipment, signals, track, track structures, or roadbed. Prior to 1983, this threshold stood at $3,700; prior to 1981, at $2,900; prior to 1979, at $2,300; prior to 1977, at $1,750; and prior to 1975, at $750.

"Property Damage" refers to the estimated cost to repair or replace damaged property (vehicles, equipment, right-of-way, etc.) to a state equivalent to that which existed prior to the accident. Property damage does not include the cost of clearing wreckage.

B. Train Derailments

1. Rail transit train derailments which result in $5,000 or greater property damage.

C. Fires/Explosions

1. Fires/explosions which involve the participation of the local fire department in the fire fighting, and/or which cause the evacuation of passengers onto the system right-of-way.

D. Exclusions

1. Accidents (collisions, derailments or fires/explosions) occurring in yards and non-revenue service areas which do not involve revenue trains; accidents (collisions, derailments or fires/explosions) which involve only work trains and servicing equipment; and collisions between train cars resulting from coupling operations which do not involve passenger casualties are excluded.

RRT Casualty - is any casualty which satisfies the following threshold levels:

A. Employee Casualties

Employees who are on-duty and who are killed or sustain lost workdays resulting from reportable train accidents.

"Lost workday" means any full day or part of a day (consecutive or not) other than the day of the injury, that an employee is away from work because of the injury. The day of the reportable train accident is not to be reported as a lost workday even though the injured employee does not complete the work assignment that day.

B. Passenger and Other Casualties

Casualties involving passengers or other personnel (off-duty employees, contractors, etc.) which occur at or in exclusive approaches to or from faregates, or equivalent, or within the normal "paid" area, and which result in:

A. Fatalities, or

B. Personal injuries which require immediate medical treatment beyond first aid.

"Medical treatment" means treatment requiring the attention of a physician or registered professional medical personnel. "Medical treatment" as used here, does not refer to minor first aid treatment (one- time treatment), precautionary measures such as tetanus shots, or subsequent observation of minor scratches, cuts, bruises or splinters.

C. Exclusions

Assaults, attempted suicides, and suicides are excluded.

AVIATION

Air Carrier - beginning with 1975*, air carriers comprise three operational categories:

(1) Certificated Route Air Carrier - one of a class of air carriers holding a certificate of public convenience and necessity issued by the Civil Aeronautics Board to conduct scheduled services over specified routes and a limited amount of nonscheduled charter operations.

(2) Supplemental Air Carrier - one of a class of air carriers holding operating certificates issued by the Civil Aeronautics Board, authorizing them to perform passenger and cargo charter services supplementing the scheduled service of the Certificated Route Air Carriers.

(3) Commercial Operator (of large aircraft) - one of a class of air carriers operating on a private for-hire basis, as distinguished from a public or common air carrier, holding a commercial operator certificate, issued by the Administrator of the Federal Aviation Administration (pursuant to Part 45 of the Civil Air Regulations) authorizing it to operate (large) aircraft in air commerce for the transportation of goods or passengers for compensation or hire.

General Aviation - refers to all civil aircraft operations except those classified as air carrier operations.

General Aviation Flying:

- Personal - any use of an aircraft for personal purposes not associated with business or profession, and not for hire. This includes maintenance of pilot proficiency.
- Business - any use of an aircraft, not for compensation or hire, by an individual for the purposes of transportation required by a business in which he is engaged.
- Commuter operator - any operator who performs, pursuant to published schedule, at least five round trips per week between two or more points, or carries mail on contract.
- Executive - any use of an aircraft by a corporation, a company or other organization for the purposes of transporting its employees and/or property not for compensation or hire and employing professional pilots for the operation of the aircraft.
- Air Taxi - any use of an aircraft by the holder of an air taxi operating certificate which is authorized by the certificate.
- Instructional - any use of an aircraft for the purposes of formal flight instruction with or without the flight instructor aboard.
- Aerial Application - any use of an aircraft in agriculture to discharge material in flight and to perform activities such as antifrost agitation, agitating fruit trees, chasing birds from crops, checking crops, restocking of fish, animal and other wildlife, etc.
- Other - any use of an aircraft not specified in the preceding uses. It includes research and development, demonstration, sport parachuting, ferry flight and industrial/special.

*Prior to 1975, air carriers did not comprise commercial operators.

- o Injury - refers to an injury requiring medical treatment other than on site first aid.
- o Fatality - is a death resulting from the escape of liquid.
- o Accident - is a release of the commodity transported as presented in 49 CFR Section 195.50.

HAZARDOUS MATERIALS

Incident - refers to any unintentional release of hazardous material while in transit or storage.

Fatality - the information received indicated that the death was due to the hazardous material involved.

Injury - the information received indicated that the injury required professional medical treatment and was due to the hazardous material involved.

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