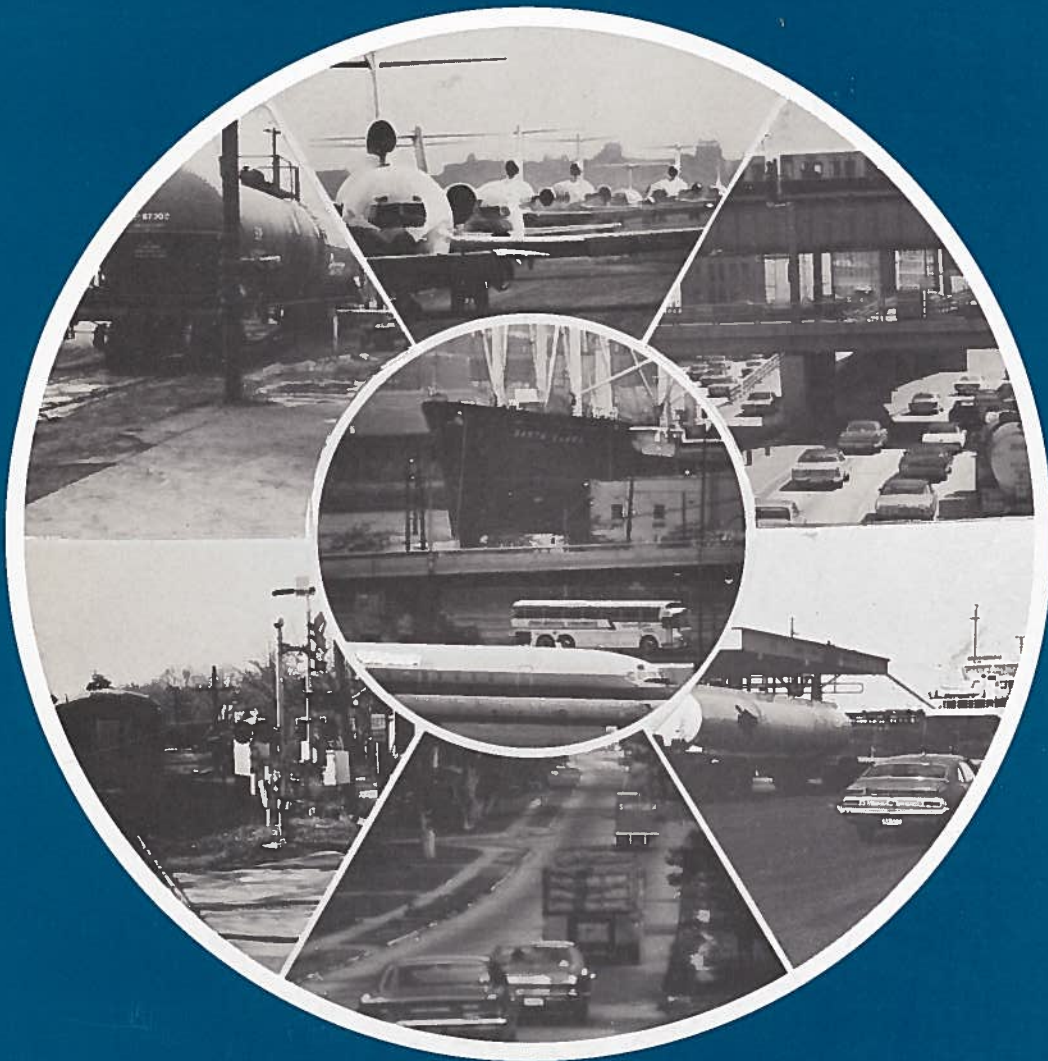




U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

# Transportation Safety Information Report

## First Quarter 1985



Transportation Systems Center

Technical Report Documentation Page

1. Report No. DOT-TSC-RSPA-85-4	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle TRANSPORTATION SAFETY INFORMATION REPORT FIRST QUARTER 1985		5. Report Date July 1985	
		6. Performing Organization Code DTS-32	
7. Author(s) Marjorie Saccoccio		8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center, Center for Transportation Information, Cambridge, MA 02142		10. Work Unit No. (TRAIS) RS509/R5505	
		11. Contract or Grant No.	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Research and Special Programs Administration Office of Budget and Programs Washington, D.C. 20590		13. Type of Report and Period Covered First Quarter 1984/1985	
		14. Sponsoring Agency Code DMA-20	
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 Safety Information System (TRANSIS) by representatives in each of DOT's modal administrations and the National Transportation Safety Board.			
17. Key Words Safety, Statistics, Transportation, Fatalities, Accidents, Injuries		18. Distribution Statement  Document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 68	22. Price

DOT F1700.7 (8-72)

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## **TRANSIS REPRESENTATIVES AND MANAGEMENT**

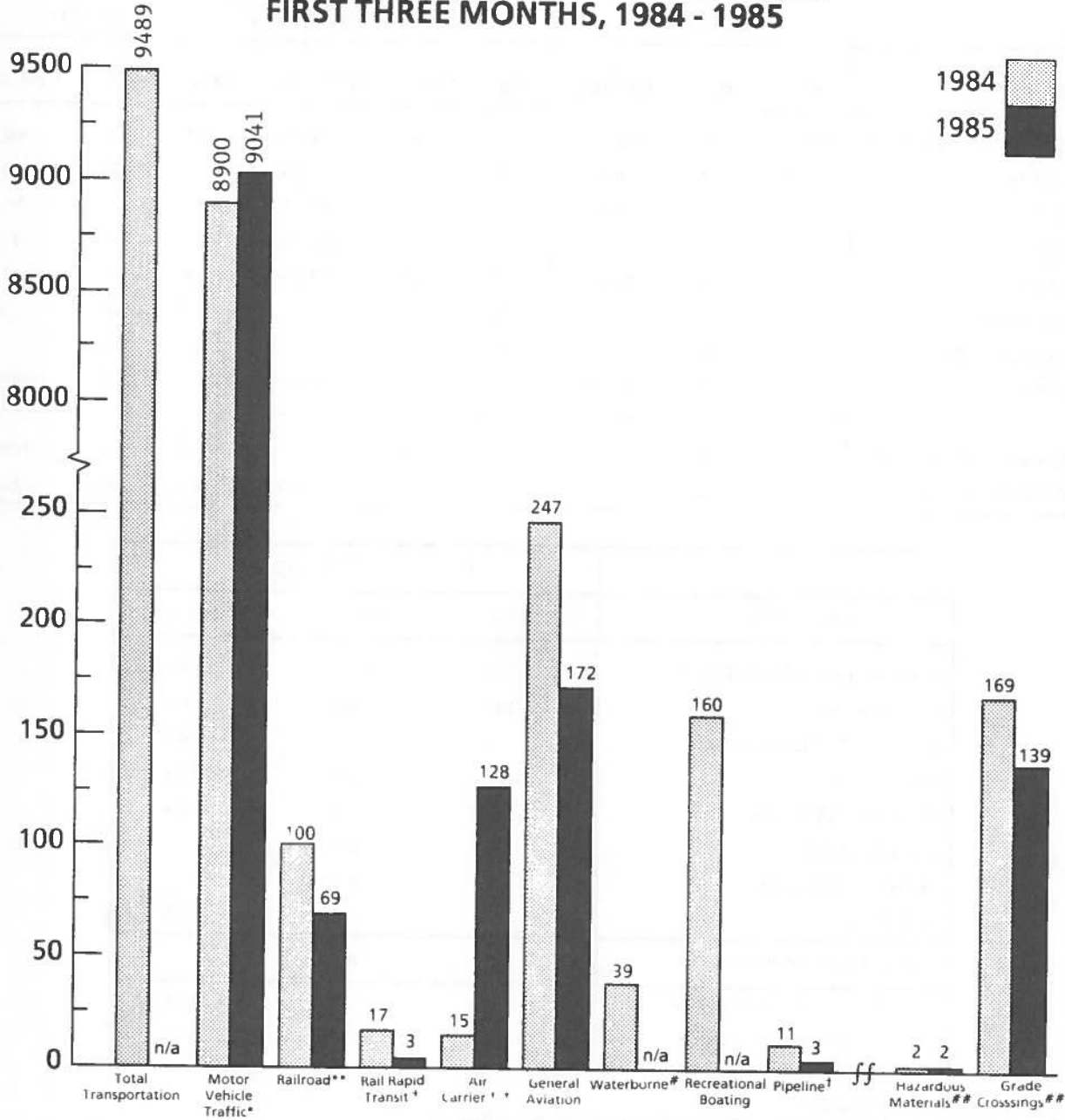
AGENCY	ROUTING SYMBOL	TELEPHONE	ROOM
<b>UNITED STATES COAST GUARD</b>			
Paul Ponce	G-MMI-3	426-6251	1404(TRPT)
Albert J. Marmo	G-BP-42	426-1070	4224(TRPT)
<b>FEDERAL AVIATION ADMINISTRATION</b>			
Charles J. Hoch	ASF-200	426-8256	333(10A)
<b>FEDERAL HIGHWAY ADMINISTRATION</b>			
Phyllis Young	HHS-22	426-2171	3409
<b>FEDERAL RAILROAD ADMINISTRATION</b>			
Bruce Fine	RRS-20	426-6144	8314
<b>NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</b>			
Grace B. Hazzard	NRD-33	472-7040	6201B
<b>URBAN MASS TRANSPORTATION ADMINISTRATION</b>			
Lloyd G. Murphy	URT-6	426-2896	6429
<b>RESEARCH &amp; SPECIAL PROGRAMS ADMINISTRATION</b>			
Richard C. Stevens	DMA-20	426-4228	8409
<b>NATIONAL TRANSPORTATION SAFETY BOARD</b>			
Bernard Loeb	SP-10	382-6623	834(10A)
<b>TRANSIS MANAGEMENT</b>			
<b>SPONSOR-RSPA/MANAGEMENT INFORMATION SYSTEMS</b>			
Richard C. Stevens	DMA-20	426-4228	8409
<b>TASK MANAGER/PROGRAM ANALYST</b>			
William Gay	DTS-32	494-2450	1163(TSC)
Marjorie Saccoccio	DTS-32	(FTS 837-2450)	1162(TSC)



# SUMMARY STATISTICS OF TRANSPORTATION SAFETY

## CHART 1.

### TRANSPORTATION FATALITIES BY MODE FIRST THREE MONTHS, 1984 - 1985



- Note: 1985 Data are preliminary.
- \* Traffic fatalities are NHTSA's estimates based on a 30-day definition (see Glossary).
  - \*\* Fatalities resulting from train accidents, train incidents, and nontrain incidents. Train-related grade crossing fatalities are not included.
  - + Fatalities resulting from train and nontrain incidents.
  - †† Air Carrier includes Commuter Carriers and Air Taxis.
  - # Waterborne data are for vessel casualties only.
  - \*\* These fatalities are included in other modes and Total Transportation.
  - † Includes Liquid and Gas Pipeline.



**TABLE 1.**  
**TRANSPORTATION FATALITIES BY MODE**  
**FIRST THREE MONTHS, 1984 - 1985**

CLASSIFICATION	JANUARY			FEBRUARY			MARCH		
	1984	1985	% CHANGE	1984	1985	% CHANGE	1984	1985	% CHANGE
MOTOR VEHICLE TRAFFIC*	2,830	3,002	+6.1%	2,765	2,706	-2.1%	3,305	3,333	+0.8%
RAILROAD**	25	21	-16.0%	40	15	-62.5%	35	33	-5.7%
RAIL RAPID TRANSIT+	6	1	-83.3%	7	1	-85.7%	4	1	-75.0%
AIR CARRIER++	6	104	+1633.3%	1	19	+1800.0%	8	5	-37.5%
GENERAL AVIATION	73	52	-28.8%	75	64	-14.7%	99	56	-43.4%
WATERBORNE#	13	n/a	-	13	n/a	-	13	n/a	-
RECREATIONAL BOATING	30	n/a	-	59	n/a	-	71	n/a	-
PIPELINES†	6	1	-83.3%	4	2	-50.0%	1	0	-100.0%
HAZARDOUS MATERIALS##	0	2	[1]	0	0	0.0	2	0	-100.0%
GRADE CROSSING ONLY##	60	59	-1.7%	43	36	-16.3%	66	44	-33.3%

CLASSIFICATION	FIRST QUARTER TOTAL		
	1984	1985	% CHANGE
MOTOR VEHICLE TRAFFIC*	8,900	9,041	+1.6%
RAILROAD**	100	69	-31.0%
RAIL RAPID TRANSIT+	17	3	-82.4%
AIR CARRIER++	15	128	+753.3%
GENERAL AVIATION	247	172	-30.4%
WATERBORNE#	39	n/a	-
RECREATIONAL BOATING	160	n/a	-
PIPELINES†	11	3	-72.7%
TOTAL TRANSPORTATION	9,489	n/a	-
HAZARDOUS MATERIALS##	2	2	0.0%
GRADE CROSSING ONLY##	169	139	-17.8%

NOTE: 1985 Data are preliminary.  
\* Traffic fatalities are NHTSA's estimates based on a 30-day definition.  
\*\* Fatalities resulting from train accidents, train incidents, and nontrain incidents. Train-related grade crossing fatalities are not included.  
+ Fatalities resulting from train and nontrain incidents.  
++ Air Carrier includes Commuter Carriers and Air Taxis.  
# Waterborne data are for vessel casualties only.  
## These fatalities are included in other modes and Total Transportation.  
† Includes Gas and Liquid Pipeline.  
[1] Not calculable.

## HIGHWAY

In the first quarter of 1985, Motor Vehicle Traffic fatalities increased 1.6 percent when compared to the first quarter of 1984. However, fatalities were 1.8 percent below the totals for the first quarter of 1976.

Estimates of motor vehicle miles of travel during the first quarter of 1985 rose 2.9 percent over the same 1984 period.

**TABLE 2.**

### HIGHWAY FATALITIES FOR 1985 COMPARED WITH 1984 AND 1976

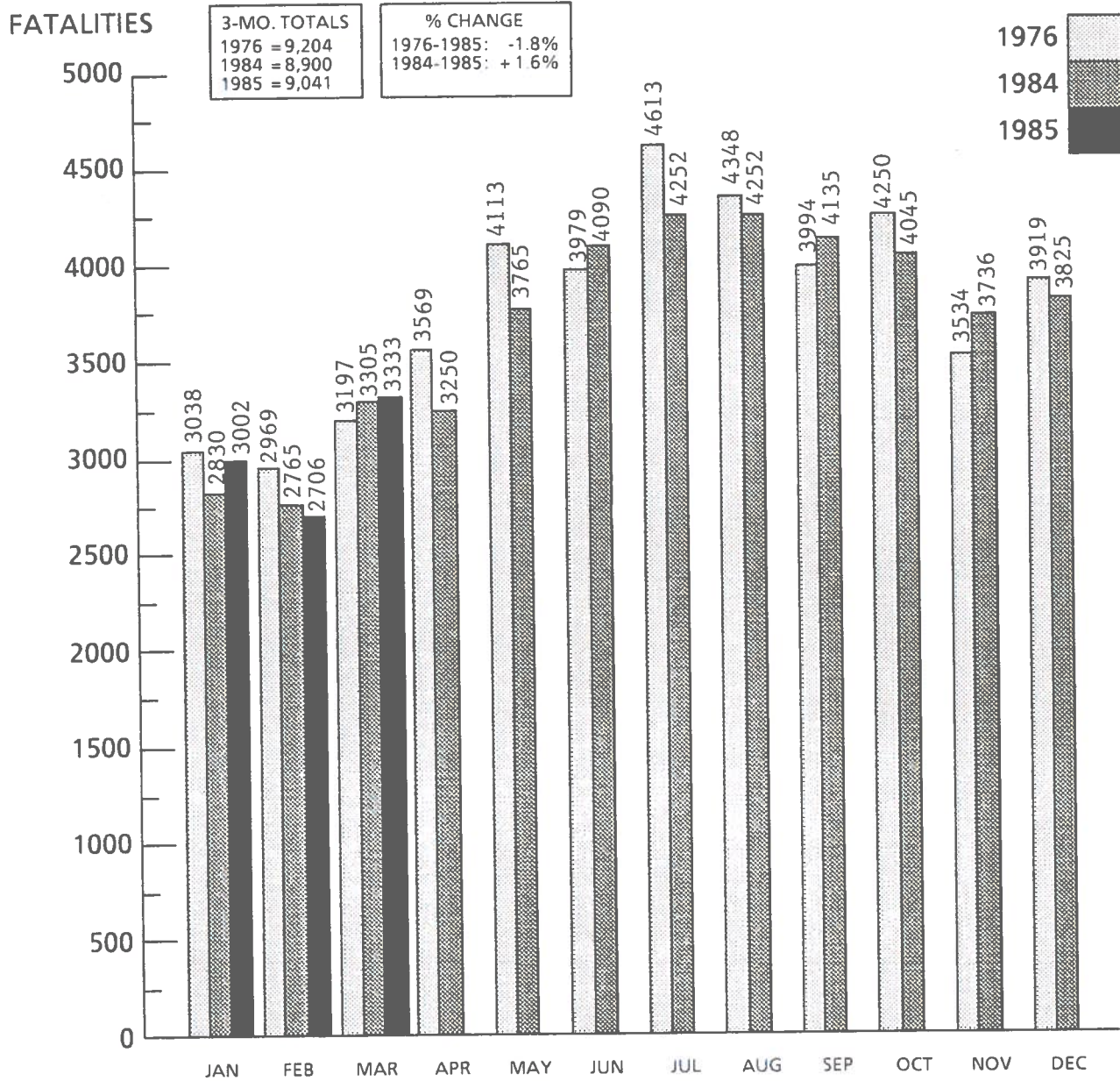
	1976	1984	1985	% Change 1976-1985	% Change 1984-1985
January	3,038	2,830	3,002	-1.2	+ 6.1
February	2,969	2,765	2,706	-8.9	-2.1
March	3,197	3,305	3,333	+ 4.3	+ 0.8
Total First Quarter	9,204	8,900	9,041	-1.8	+ 1.6

NOTE: Figures are based on 30-day fatality definition (see Glossary).  
1985 Data are preliminary.

SOURCE: Fatal Accident Reporting System (FARS), NHTSA, NCSA, NRD-33.

## CHART 2.

### MOTOR VEHICLE TRAFFIC FATALITIES BY MONTH 1976, 1984 AND 1985

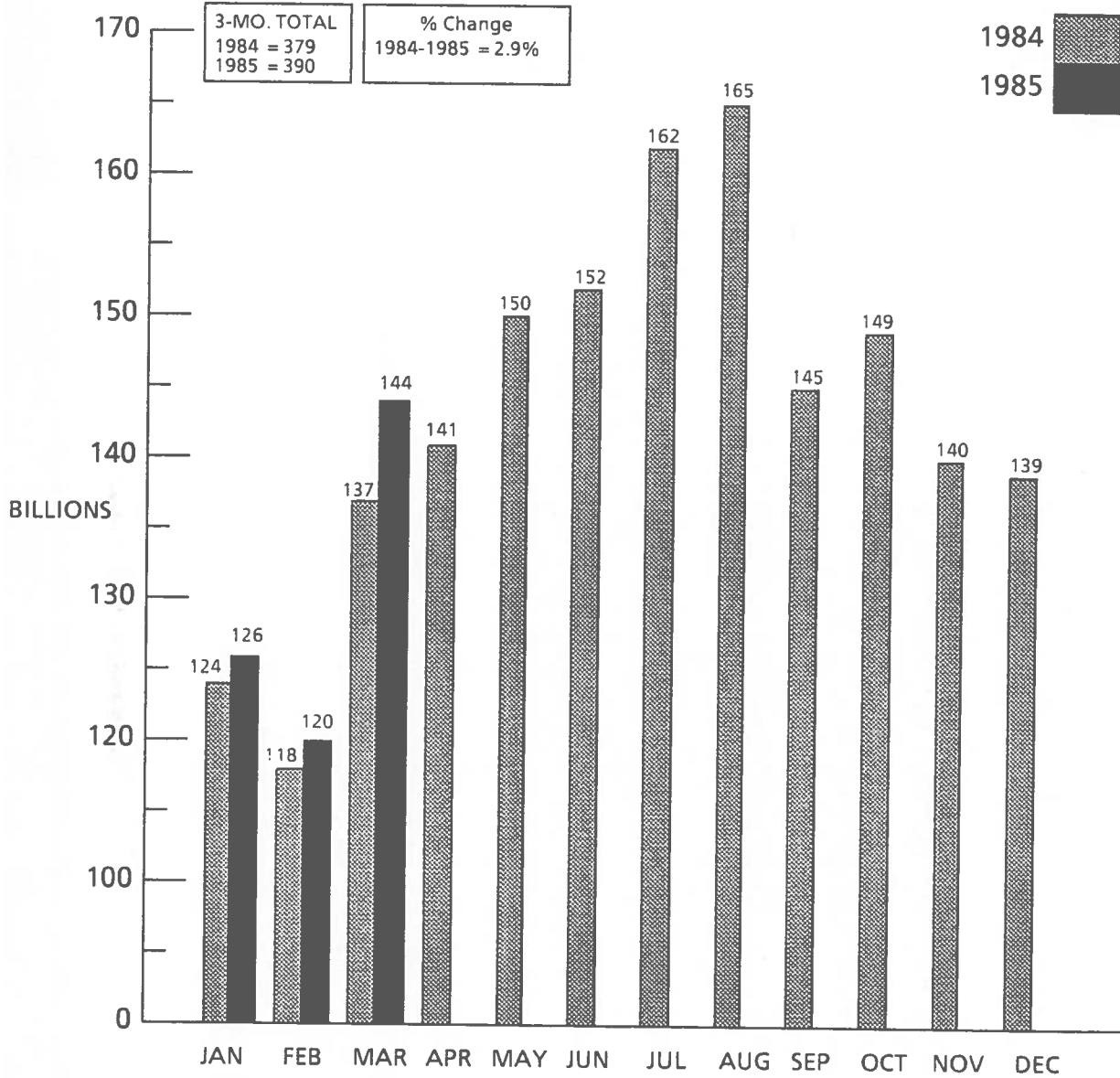


NOTE: Figures are based on 30-day fatality definition (see Glossary).  
1985 Data are preliminary.

SOURCE: Fatal Accident Reporting System (FARS), NHTSA, NCSA, NRD-33.

# CHART 3.

## MOTOR VEHICLE MILES OF TRAVEL, 1984 - 1985P



P = Preliminary.

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



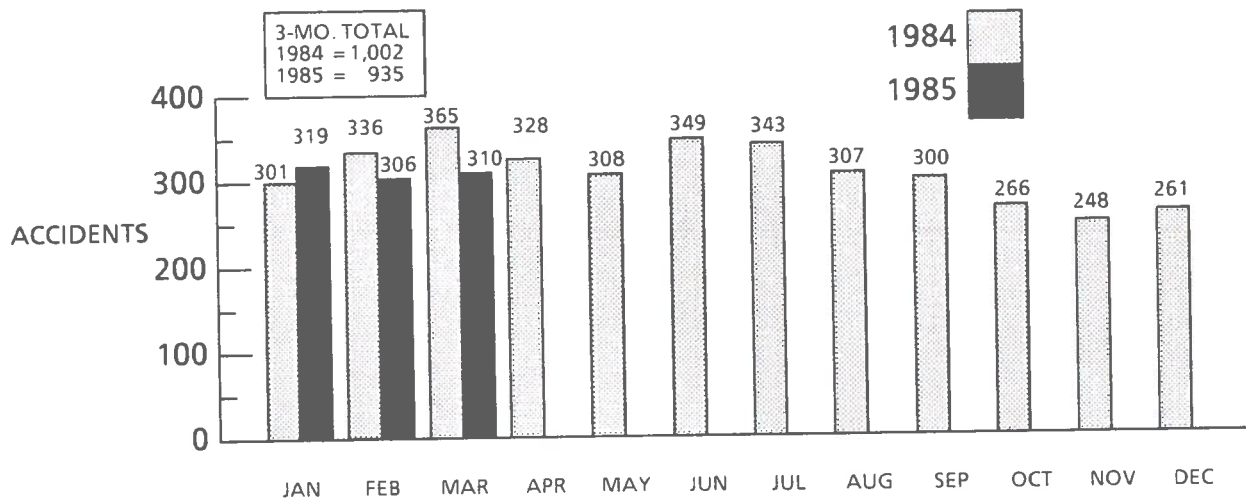
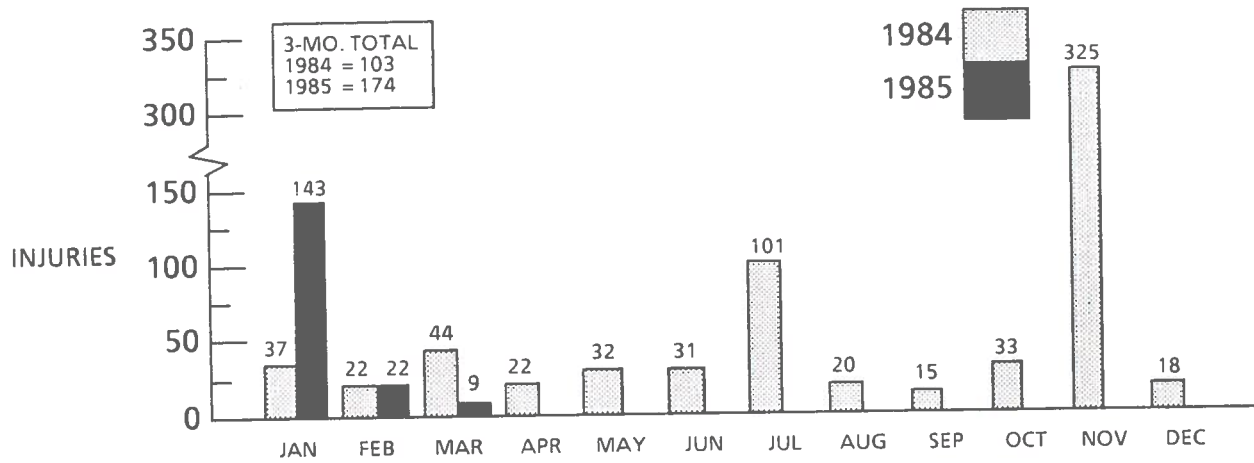
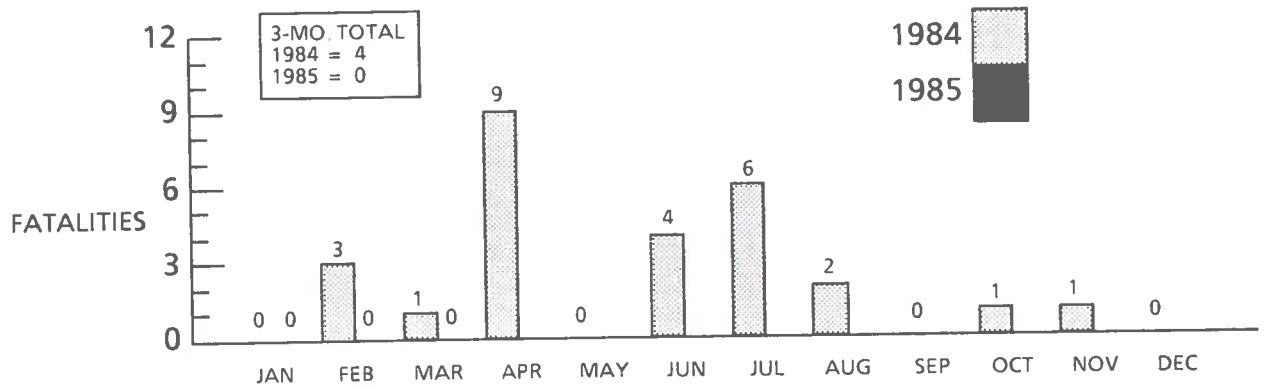
## **RAILROAD**

During the first quarter of 1985, train accidents and fatalities decreased when compared with the first quarter of 1984. There were 935 train accidents in 1985 and 1,002 in 1984. No fatalities were reported in 1985 while four were reported in 1984. Injuries increased significantly during this time period -- from 103 in 1984 to 174 in 1985. The increase in injuries was the result of two separate train collisions in which 132 passengers/railroad employees were injured.

Rail-Highway Grade Crossing accidents, injuries, and fatalities all experienced a decline in the first three months of 1985 when compared with the same period of 1984. The number of grade crossing accidents fell from 2,118 to 2,003, injuries dropped from 856 to 747, and fatalities decreased from 169 to 139.

# CHART 4.

## TRAIN ACCIDENT\* FATALITIES, INJURIES AND ACCIDENTS, 1984-1985

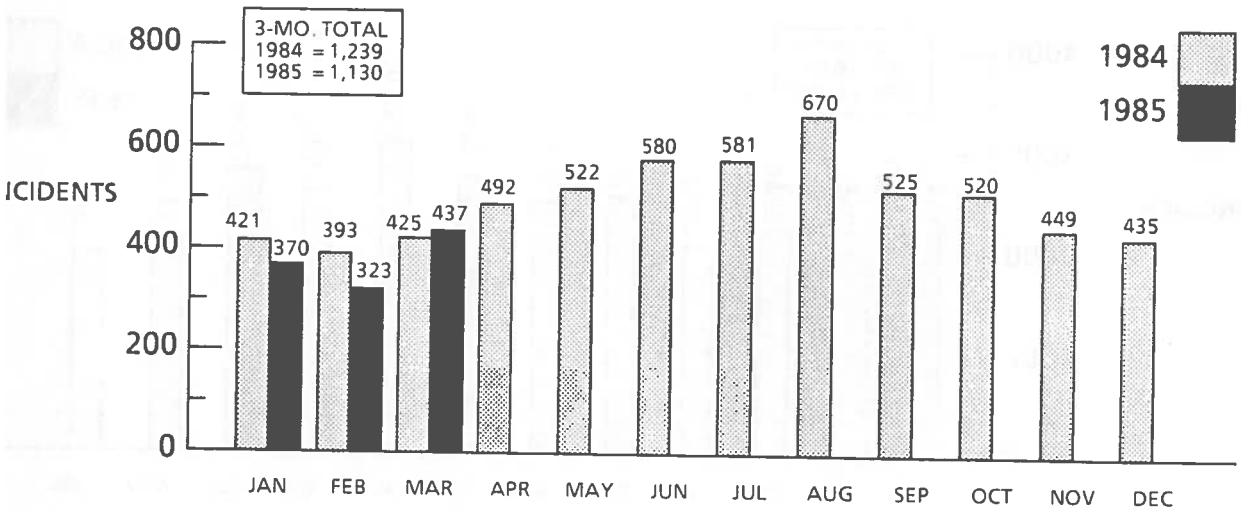
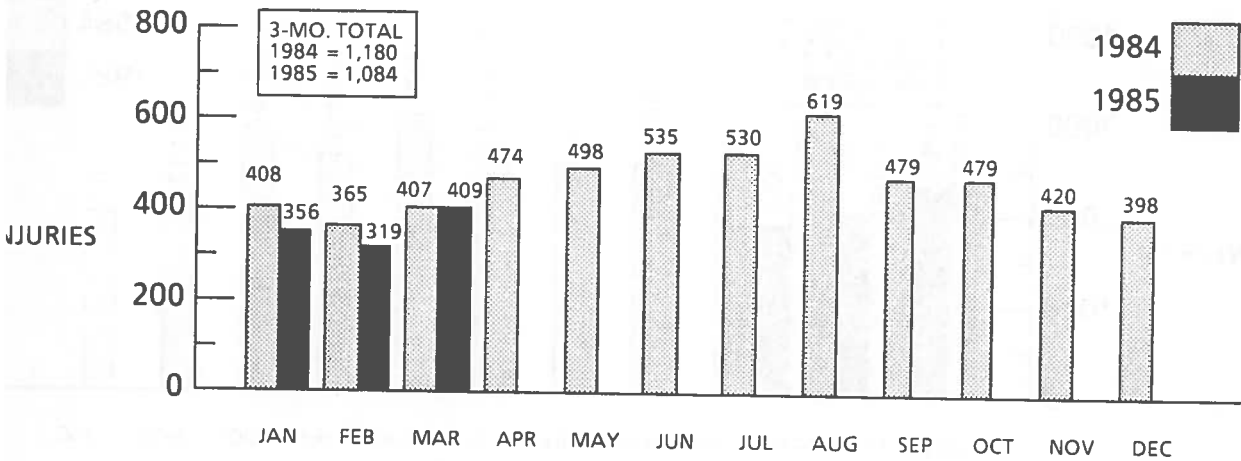
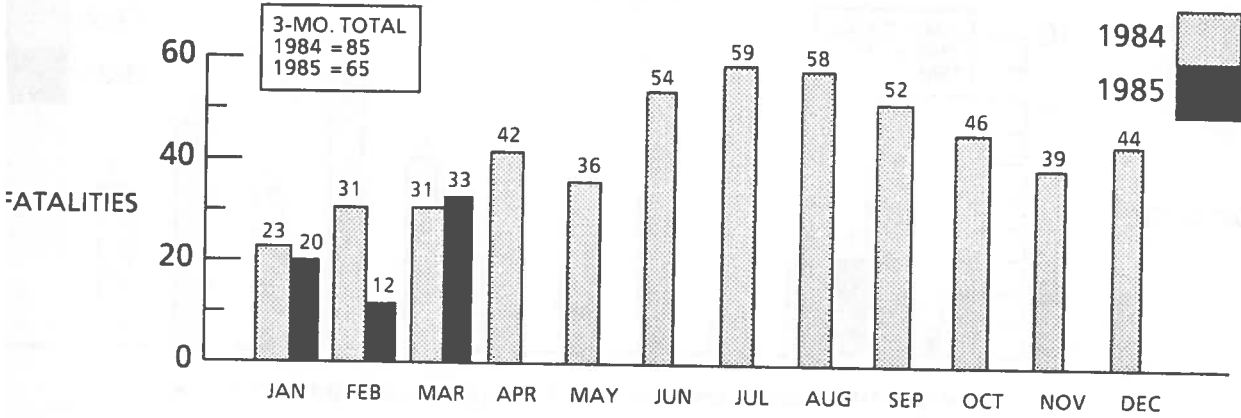


\* See Glossary for Train Accident definition. This chart does not include Grade Crossings.  
NOTE: 1985 Data are preliminary.

SOURCE: FRA, Office of Safety Analysis, RRS-20

# CHART 5.

## TRAIN INCIDENT\* FATALITIES, INJURIES AND INCIDENTS, 1984-1985



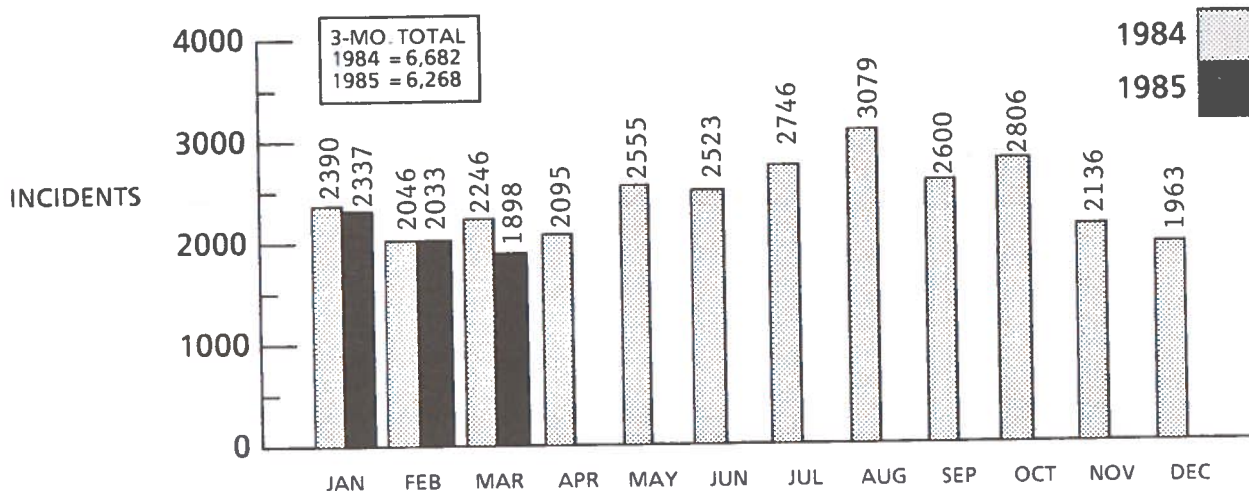
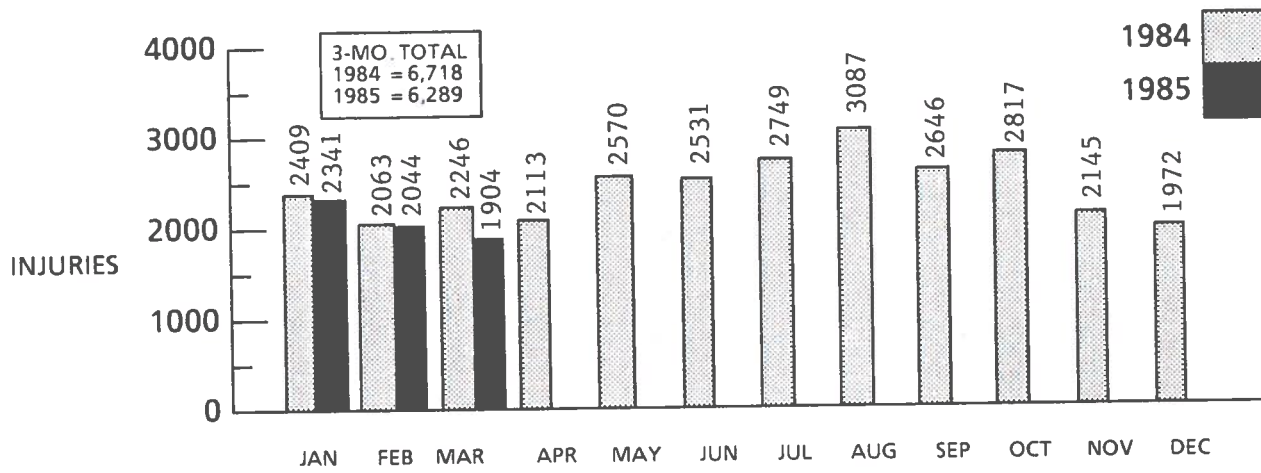
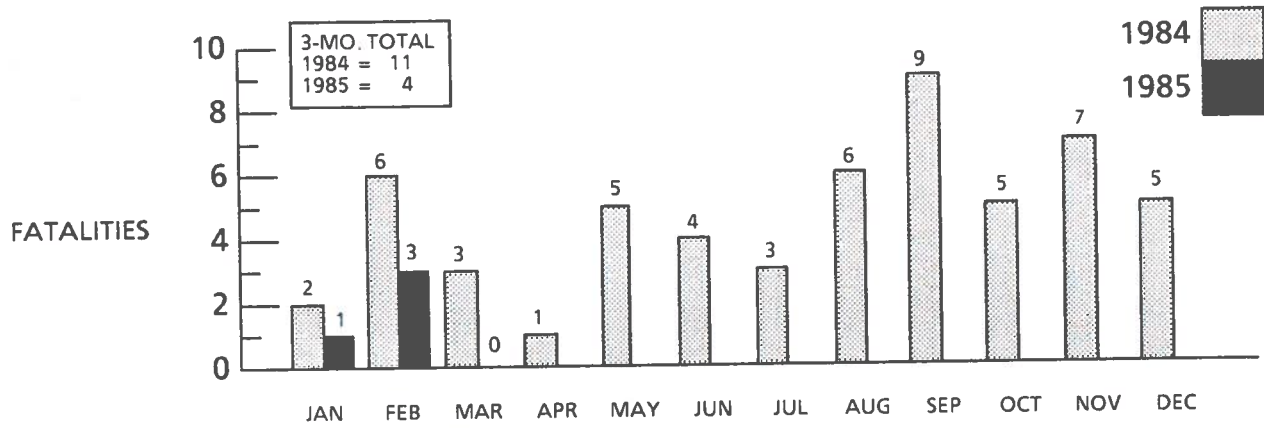
\* See Glossary for Train Incident definition. This chart does not include Grade Crossings.  
 NOTE: 1985 Data are preliminary.

SOURCE: FRA, Office of Safety Analysis, RRS-20.



# CHART 6.

## NONTRAIN\* FATALITIES, INJURIES AND INCIDENTS, 1984-1985

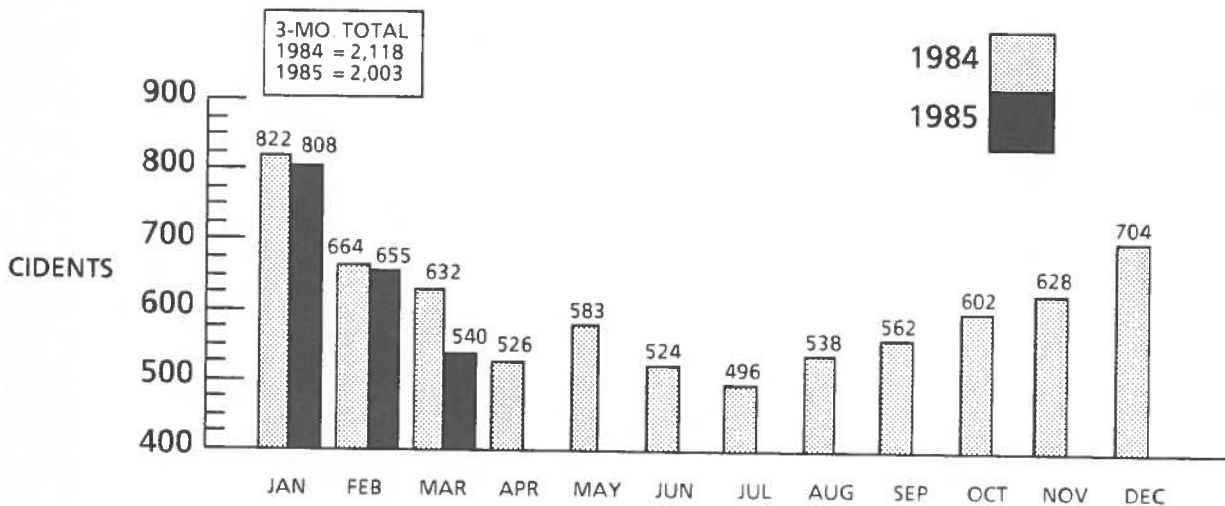
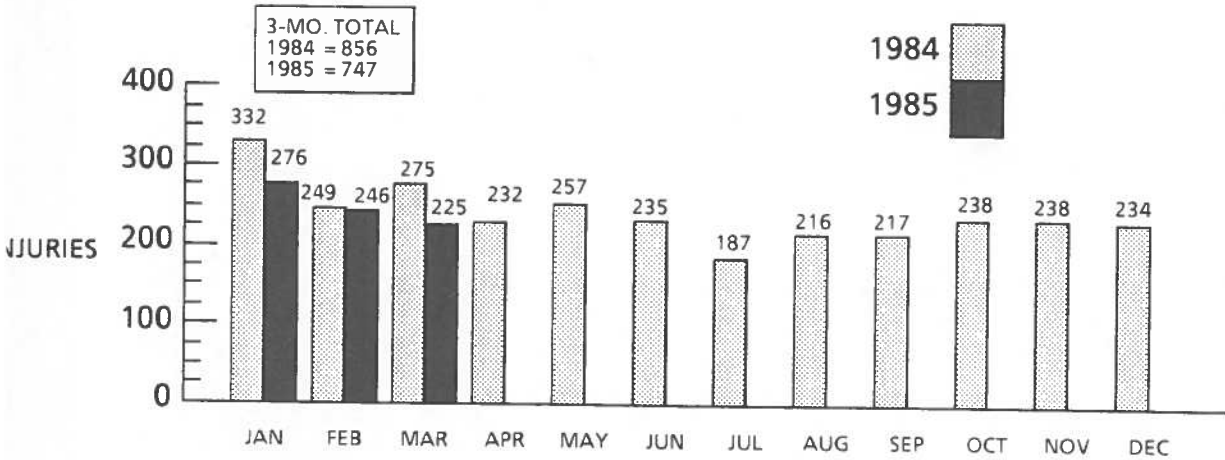
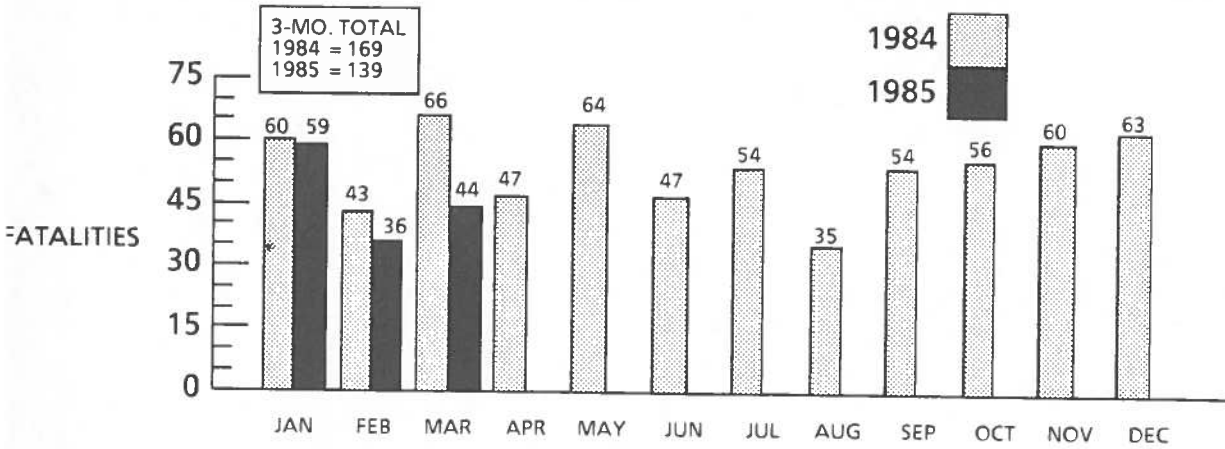


\* See Glossary for definition. This chart does not include Grade Crossings.  
NOTE: 1985 Data are preliminary.

SOURCE: FRA, Office of Safety Analysis, RRS-20.

# CHART 7.

## GRADE CROSSING\* FATALITIES, INJURIES AND INCIDENTS, 1984-1985



\* See Glossary for definition.  
NOTE: 1985 Data are preliminary.

SOURCE: FRA, Office of Safety Analysis, RRS-20.



## RAIL RAPID TRANSIT

There were no Rapid Rail Transit (RRT) revenue train accidents reported in the first quarter of 1985; however, 17 trains accidents were reported in the first quarter of 1984, seven of which were the result of derailments (41 percent).

The following table summarizes train accidents by type for the first quarter of 1984 and 1985.

	1984 FIRST QUARTER	1985* FIRST QUARTER
Collision with Other Train	0	0
Collision with Obstacle	2	0
Collision with Person	4	0
Derailment	7	0
Fire	2	0
Rail-Highway Crossing	2	0
<b>Total</b>	<b>17</b>	<b>0</b>

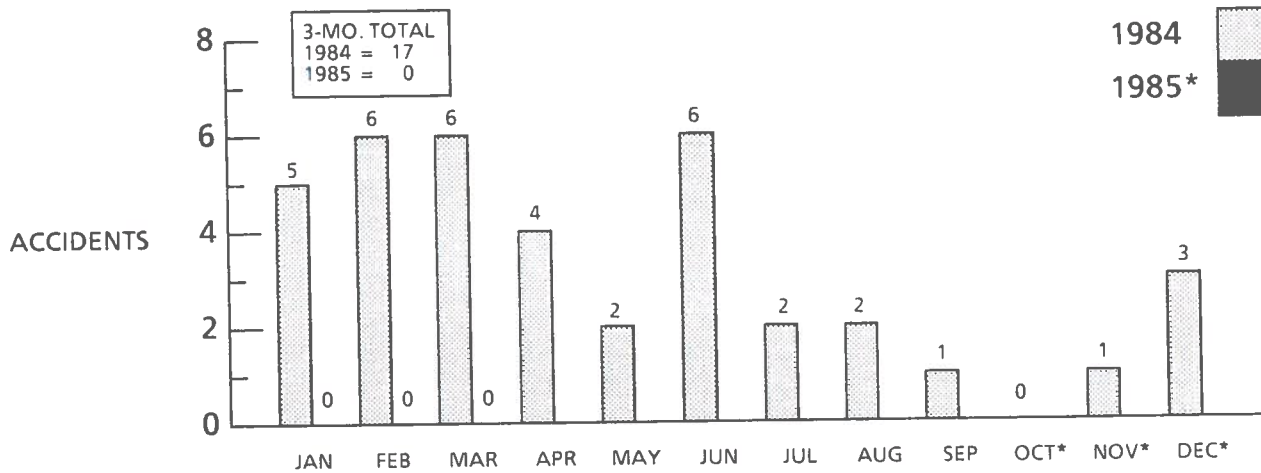
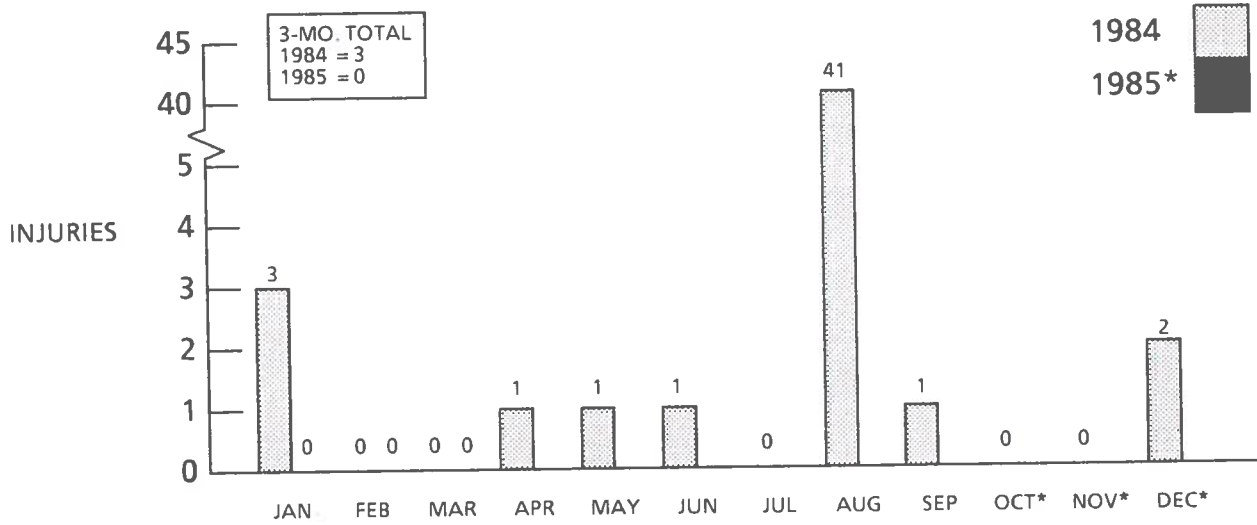
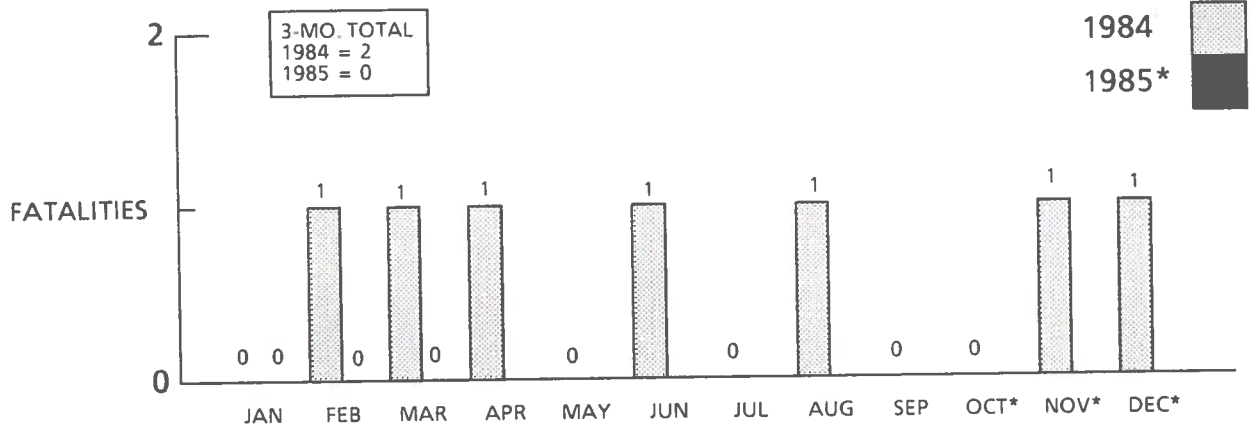
The predominant cause of RRT train and nontrain personal casualties (injuries and fatalities) in the first quarter of 1985 was from persons slipping and falling. Of the 192 casualties reported in the first quarter of 1985, 120 were from slips and falls (63 percent); while in the first quarter of 1984, 369 of the 505 casualties (injuries and fatalities) reported were also from slips and falls (73 percent).

\* Preliminary data prior to verification.

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

# CHART 8.

## RRT TRAIN FATALITIES, ACCIDENTS AND INJURIES, 1984-1985

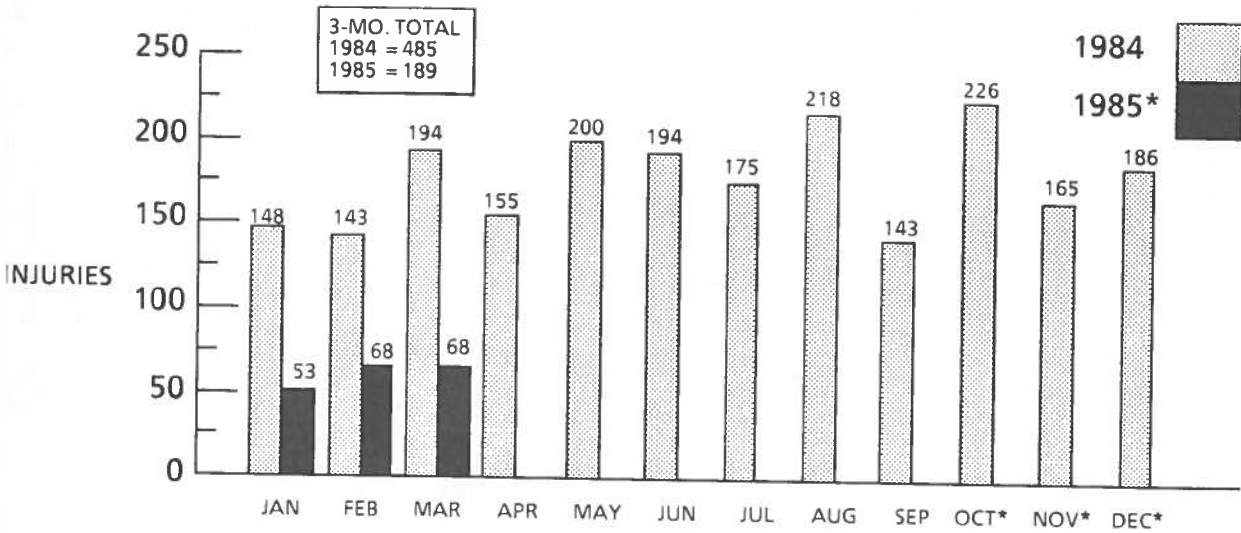
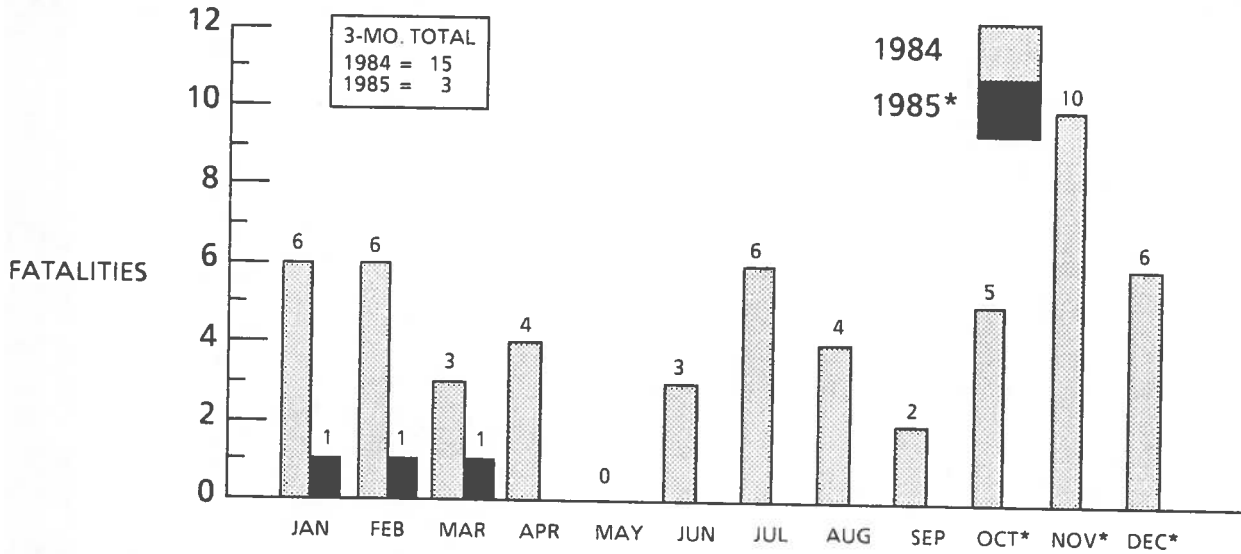


\* Preliminary data prior to verification.

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

# CHART 9.

## RRT NONTRAIN FATALITIES AND INJURIES, 1984 - 1985



\* 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, 125, and 127. 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, 125, 127, or 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. With the demise of the CAB on December 31, 1984, FAA definitions of such terms as air carriers and general aviation are now being used.

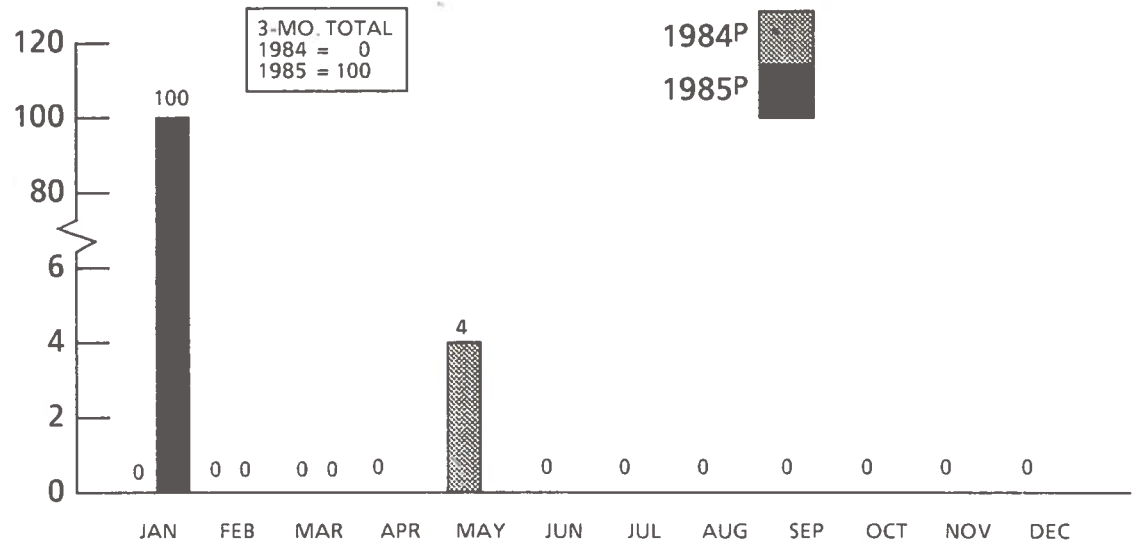
### **AIR CARRIER**

- No fatal accidents were reported in the first quarter of 1984; however, in the first quarter of 1985, there were three fatal accidents. One accident resulted in a single fatality with the remaining fatalities attributed to fatal accidents in La Paz, Bolivia, and Reno, Nevada. As a result of these accidents, the number of fatalities increased from zero in 1984 to 100 in the first quarter of 1985.
- A comparison of fatality, injury and accident data for commuter carriers and on-demand air taxis showed an increase in almost all areas for the first three months of 1985 compared with the same period of 1984. Only commuter carrier injuries remained unchanged during this period.



## CHART 10.

### U.S. AIR CARRIER\* FATALITIES, 1984 - 1985



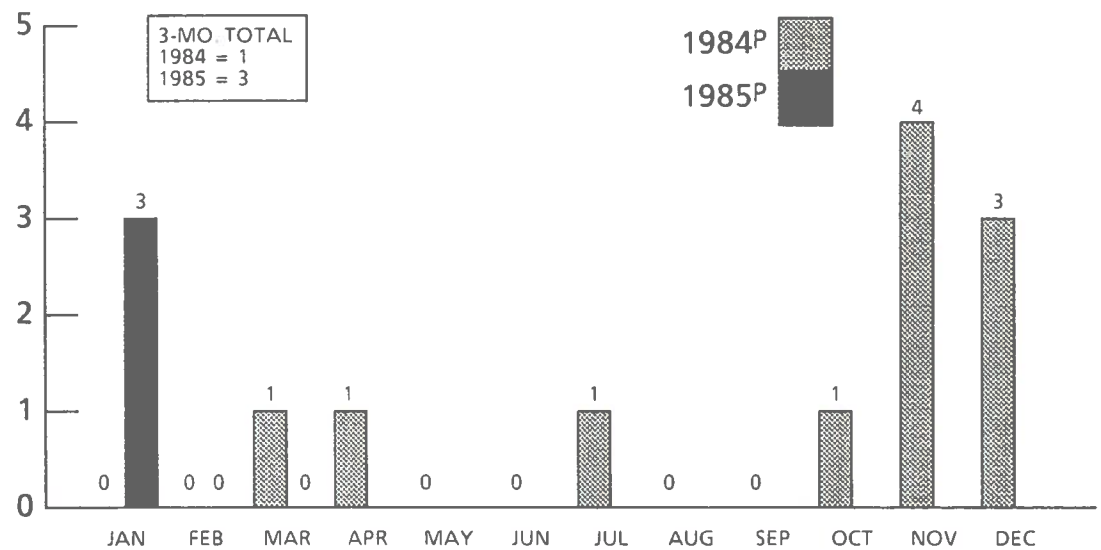
P = Preliminary.

\* All large carriers operating under 14 CFR 121, 125, and 127.

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

## CHART 11.

### U.S. AIR CARRIER\* SERIOUS INJURIES, 1984 - 1985



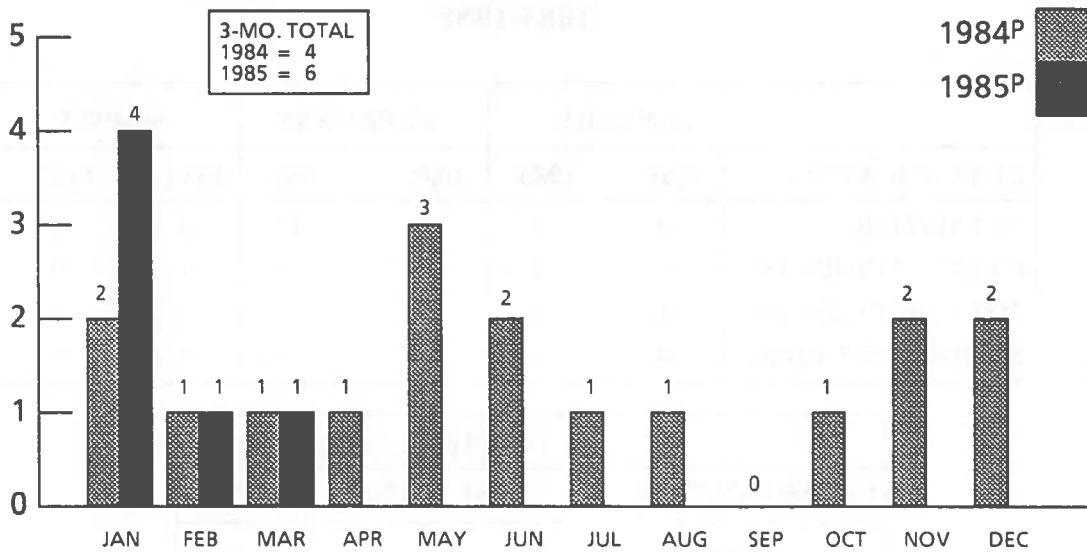
P = Preliminary.

\* All large carriers operating under 14 CFR 121, 125, and 127.

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

## CHART 12.

### U.S. AIR CARRIER ACCIDENTS\*, 1984 - 1985



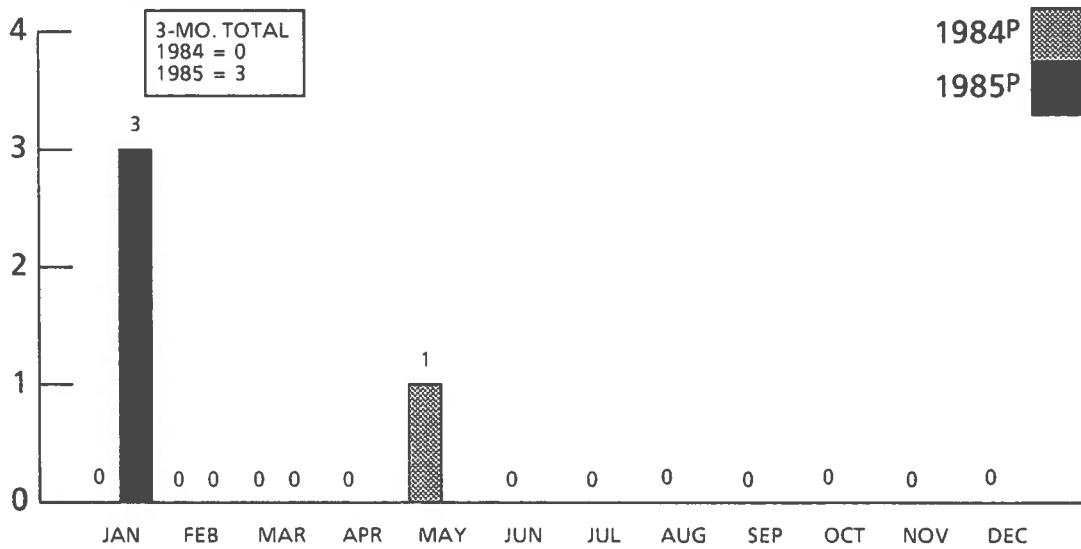
P = Preliminary.

\* All large carriers operating under 14 CFR 121, 125, and 127.

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

## CHART 13.

### U.S. AIR CARRIER\* FATAL ACCIDENTS, 1984 - 1985



P = Preliminary.

\* All large carriers operating under 14 CFR 121, 125, and 127.

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

**TABLE 3.**  
**COMMUTER CARRIERS\* ACCIDENTS, FATALITIES AND INJURIES**  
**1984-1985**

CLASSIFICATION	JANUARY		FEBRUARY		MARCH	
	1984	1985	1984	1985	1984	1985
FATALITIES	0	0	0	11	3	0
FATAL ACCIDENTS	0	0	0	2	1	0
TOTAL ACCIDENTS	1	1	2	3	2	3
SERIOUS INJURIES	0	0	0	0	0	0

CLASSIFICATION	FIRST QUARTER TOTAL		
	1984	1985	% Chg
FATALITIES	3	11	+266.7
FATAL ACCIDENTS	1	2	+100.0
TOTAL ACCIDENTS	5	7	+40.0
SERIOUS INJURIES	0	0	0.0

NOTE: 1984 and 1985 Data are preliminary.  
 \* All scheduled service operating under 14 CFR 135.

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

**TABLE 4.****ON-DEMAND AIR TAXIS\* ACCIDENTS, FATALITIES AND INJURIES  
1984-1985**

CLASSIFICATION	JANUARY		FEBRUARY		MARCH	
	1984	1985	1984	1985	1984	1985
FATALITIES	6	4	1	8	5	5
FATAL ACCIDENTS	2	2	1	2	2	2
TOTAL ACCIDENTS	9	24	9	6	8	11
SERIOUS INJURIES	0	5	2	2	5	6

CLASSIFICATION	FIRST QUARTER TOTAL		
	1984	1985	% Chg
FATALITIES	12	17	+ 41.7
FATAL ACCIDENTS	5	6	+ 20.0
TOTAL ACCIDENTS	26	41	+ 57.7
SERIOUS INJURIES	7	13	+ 85.7

NOTE: 1984 and 1985 Data are preliminary.

\* Non-scheduled service operating under 14 CFR 135.

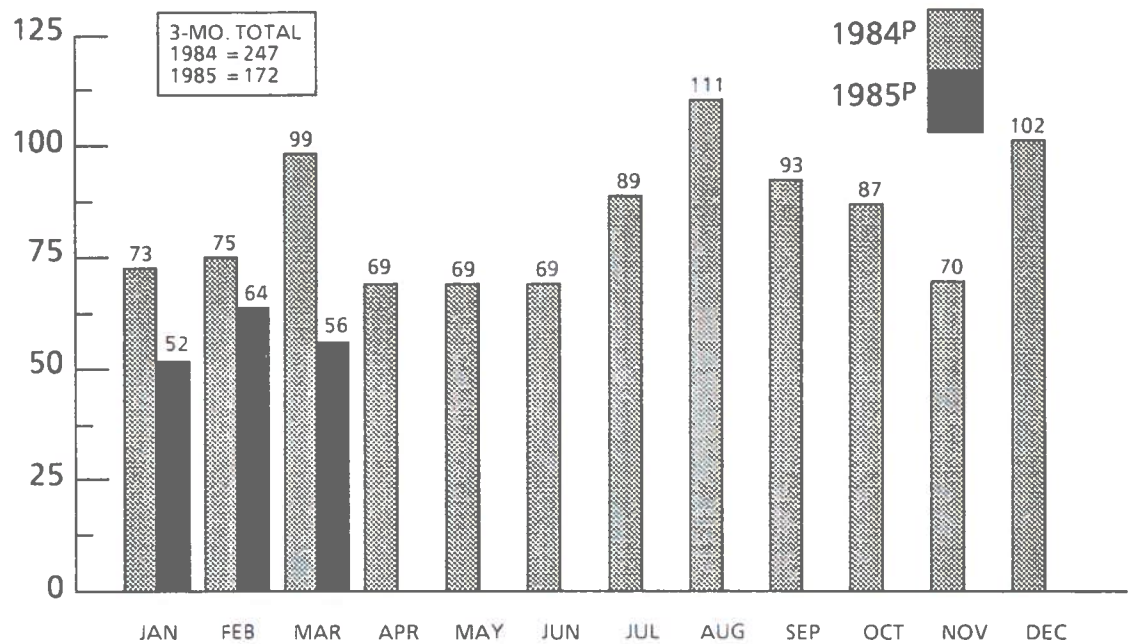
SOURCE: NTSB, Safety Studies & Analysis Division, SP-10.

## GENERAL AVIATION

- In the first quarter of 1985, General Aviation fatalities, accidents, fatal accidents, and serious injuries all experienced declines when compared to the first quarter of 1984.
- Fatalities decreased significantly in the first quarter -- from 247 in 1984 to 172 in 1985.
- The total number of General Aviation accidents dropped in the first quarter from 596 in 1984 to 503 in 1985 which represents a 15.6 percent improvement. During the same period, fatal accidents fell from 120 to 94.
- There were 76 serious injuries reported in the first quarter of 1985 compared to 119 in the first quarter of 1984.

### CHART 14.

**U.S. GENERAL AVIATION\* FATALITIES, 1984 - 1985**



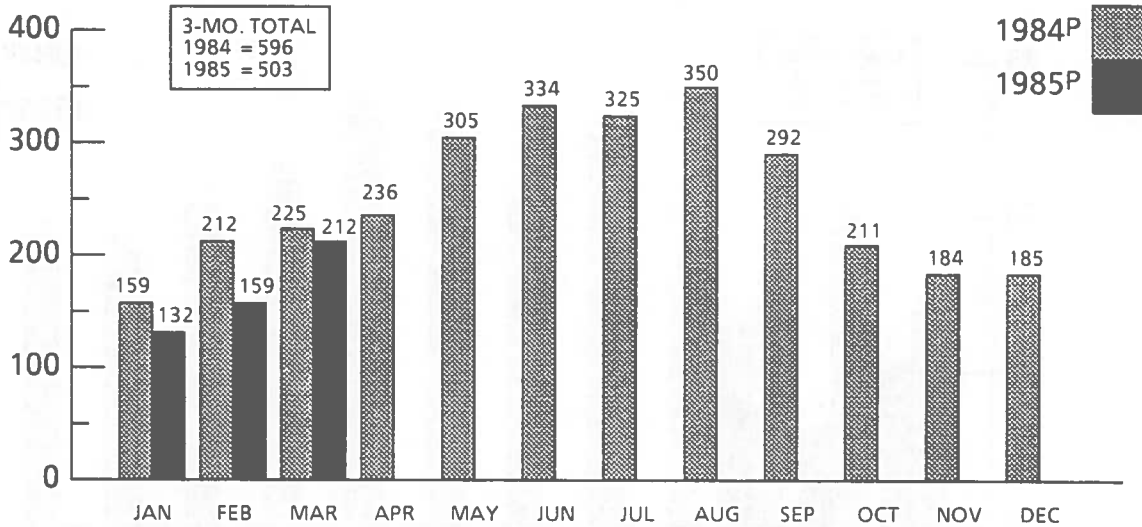
P = Preliminary.

\* All operations other than those operations under 14 CFR 121, 125, 127, and 135.

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

## CHART 15.

### U.S. GENERAL AVIATION\* ACCIDENTS, 1984 - 1985



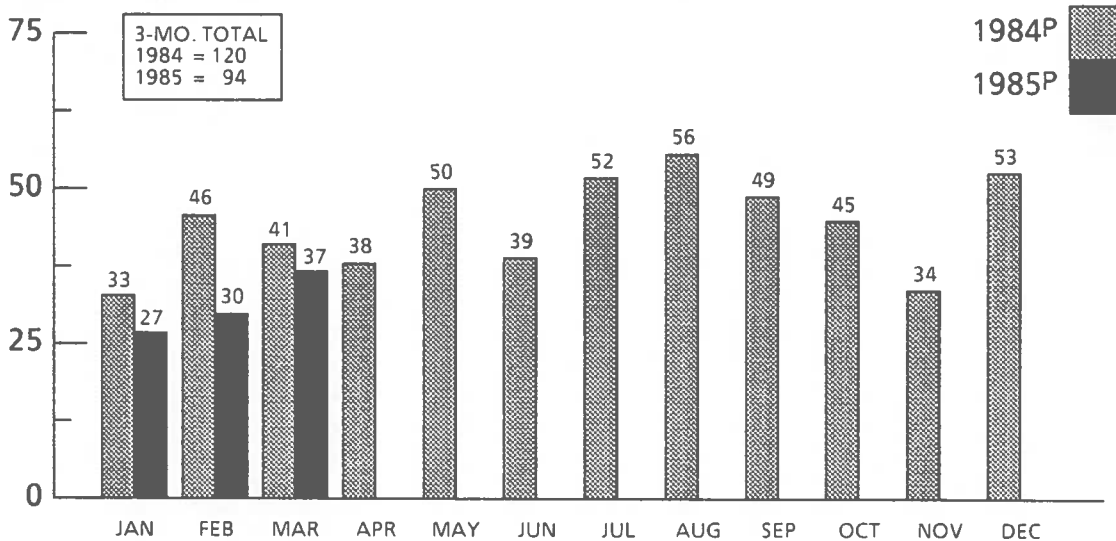
P = Preliminary.

\* All operations other than those operations under 14 CFR 121, 125, 127, and 135.

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

## CHART 16.

### U.S. GENERAL AVIATION\* FATAL ACCIDENTS, 1984 - 1985



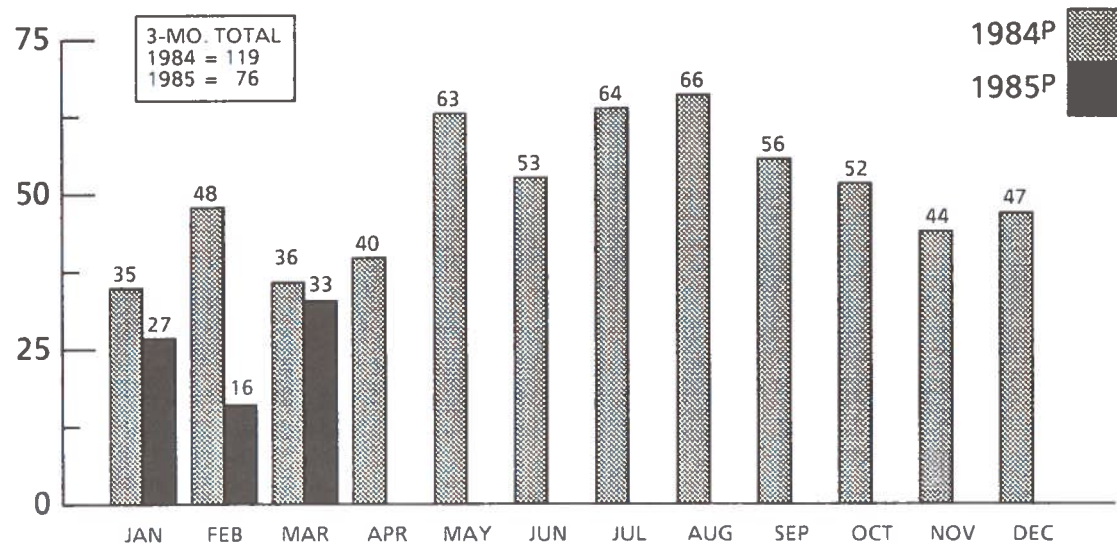
P = Preliminary.

\* All operations other than those operations under 14 CFR 121, 125, 127, and 135.

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

# CHART 17.

## U.S. GENERAL AVIATION\* SERIOUS INJURIES, 1984 - 1985



P = Preliminary.

\* All operations other than those operations under 14 CFR 121, 125, 127, and 135.

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

**TABLE 5.****GENERAL AVIATION FATALITIES BY TYPE OF FLYING, 1984 - 1985**

CLASSIFICATION	JANUARY		FEBRUARY		MARCH	
	1984	1985	1984	1985	1984	1985
PERSONAL	46	37	50	34	71	36
BUSINESS	18	6	11	11	17	15
CORPORATE/EXECUTIVE	0	5	1	5	0	1
AERIAL APPLICATION	0	0	2	0	0	0
INSTRUCTIONAL	1	2	4	7	1	1
OTHER	8	2	7	7	10	3
<b>TOTAL GENERAL AVIATION</b>	<b>73</b>	<b>52</b>	<b>75</b>	<b>64</b>	<b>99</b>	<b>56</b>

CLASSIFICATION	FIRST QUARTER TOTAL		
	1984	1985	% Chg
PERSONAL	167	107	-35.9
BUSINESS	46	32	-30.4
CORPORATE/EXECUTIVE	1	11	+1000.0
AERIAL APPLICATION	2	0	-100.0
INSTRUCTIONAL	6	10	+66.7
OTHER	25	12	-52.0
<b>TOTAL GENERAL AVIATION</b>	<b>247</b>	<b>172</b>	<b>-30.4</b>

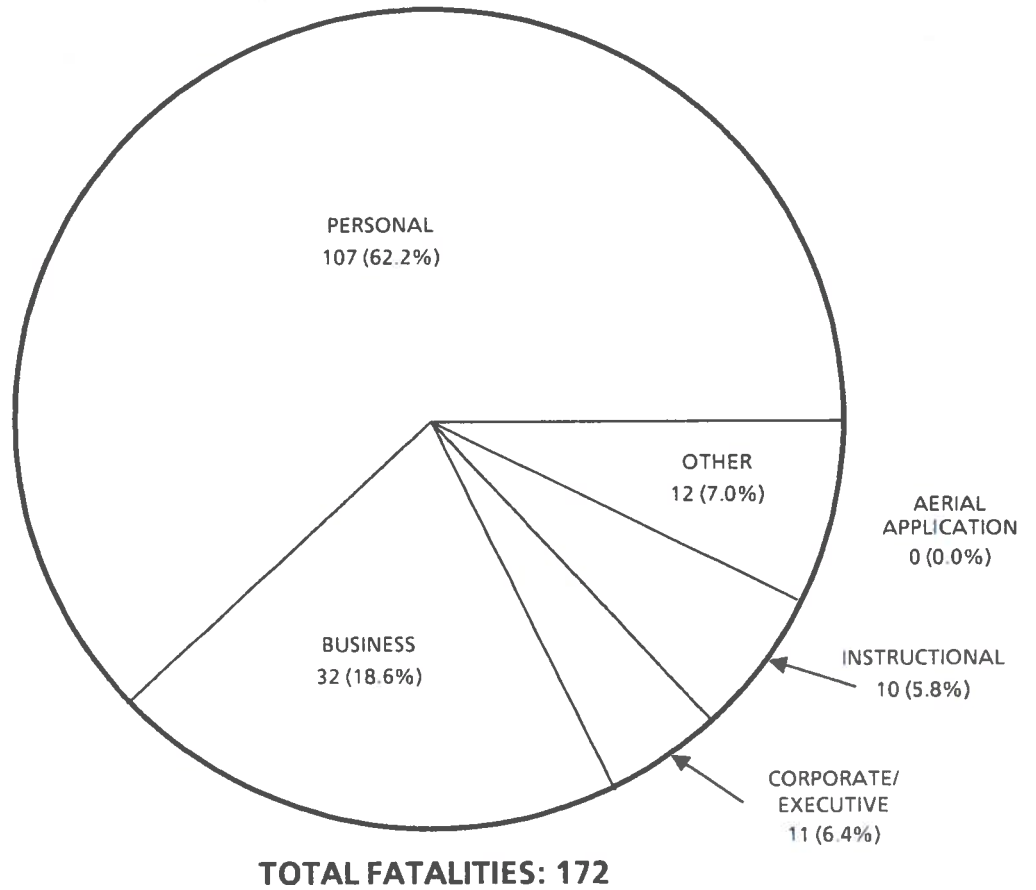
NOTE: 1984 and 1985 Data are preliminary.

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



## CHART 18.

### GENERAL AVIATION FATALITIES BY AIRCRAFT CLASSIFICATION, FIRST QUARTER, 1985



Note: 1985 Data are preliminary

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

# **MARINE**

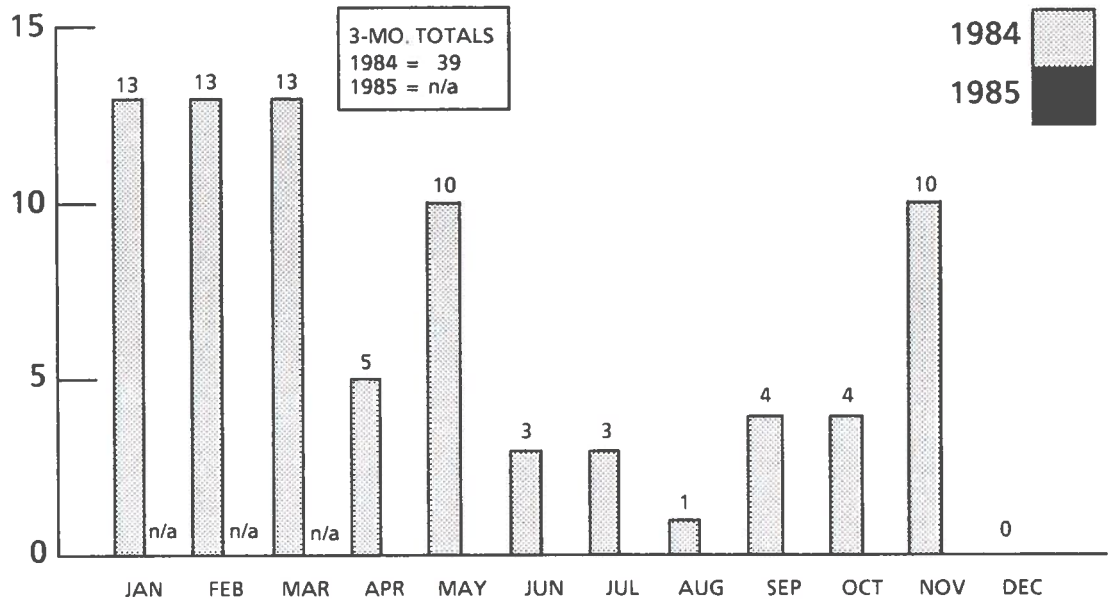
## **WATERBORNE**

The Commerical Marine Division of the Coast Guard does not have first quarter 1985 information available at this time since many of the marine casualties are still being investigated or are in various stages of completion. However, two casualties which occurred in the first quarter of 1985 are described below.

- On the morning of March 2, 1985, the tug WILLAMETTE PILOT III sank. The last report from the vessel to the Coast Guard was that the vessel was listing and down by the stern, and the crew was donning survival suits and inspecting for damage. Winds were blowing at 45 knots and the seas were 25-30 feet high at the time of the sinking. A search of the area found some debris from the vessel. In addition, one person in a survival suit was located face down, and apparently deceased. The person was not recovered because of the rough sea conditions, and was later lost from sight. Six people were killed as a result of this casualty. The Coast Guard Marine Safety Office at San Francisco Bay, California, is investigating the incident.
- On March 14, 1985, the towing vessel JEANNIE K was moving barges in a staging area on the Mississippi River, when a combination of wind and current pushed the JEANNIE K underneath the bow of one of the barges. The JEANNIE K rolled over and sank. Three of the five people on board were able to reach safety. The Coast Guard Marine Inspection Office, New Orleans, is investigating the incident.

# CHART 19.

## WATERBORNE FATALITIES 1984-1985



NOTE: 1984 and 1985 Data are incomplete.

SOURCE: USCG, Marine Investigation Division, G-MMI.

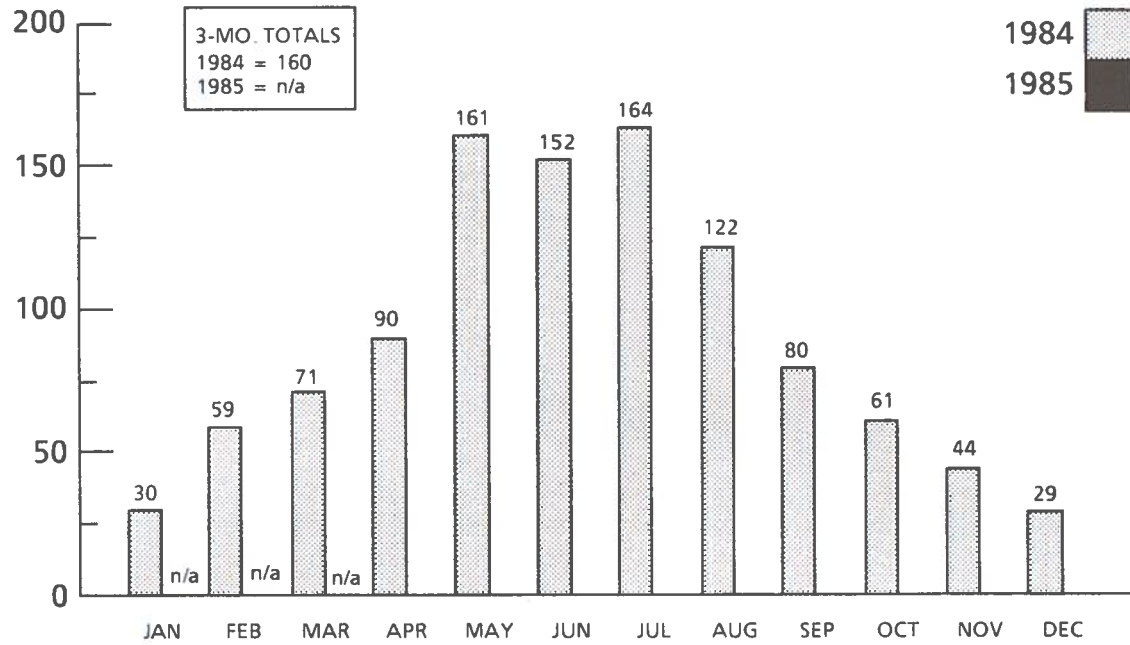
## RECREATIONAL BOATING

First quarter 1985 Recreational Boating accident statistics are not complete at this time because boating accidents are not reported immediately. Since they are not an accurate portrayal of the first quarter's accident experience, they are subject to misinterpretation. Valid boating accident statistics can only be developed annually under present or reasonably attainable reporting system conditions. Factors involved in this include the seasonal nature of boating and enforcement activity, State and Federal resource constraints, and various investigatory and processing delays.

As of June 3, 1985, the Coast Guard has received reports on only 204 vessels involved in accidents, while in 1984, 541 vessels were reported to be in accidents in the same period. Fatalities are especially slow in being reported because they are usually investigated. Fifty-nine have been reported so far, versus 160 in 1984. The comparison of injuries is: 1985 - 45; 1984 - 156. The comparison of property damage is: 1985 - \$668,600; 1984 - \$1,514,800. If we assume that the same number of accidents have occurred in the first quarter of 1985 as occurred in 1984, then only about one-third of the fatalities and one-third of reports of other accidents are in our files. These statistics are lower than last year's first quarter submission, but we have no reason to expect that the final statistics for the first quarter will be lower than the final 1984 statistics reported.

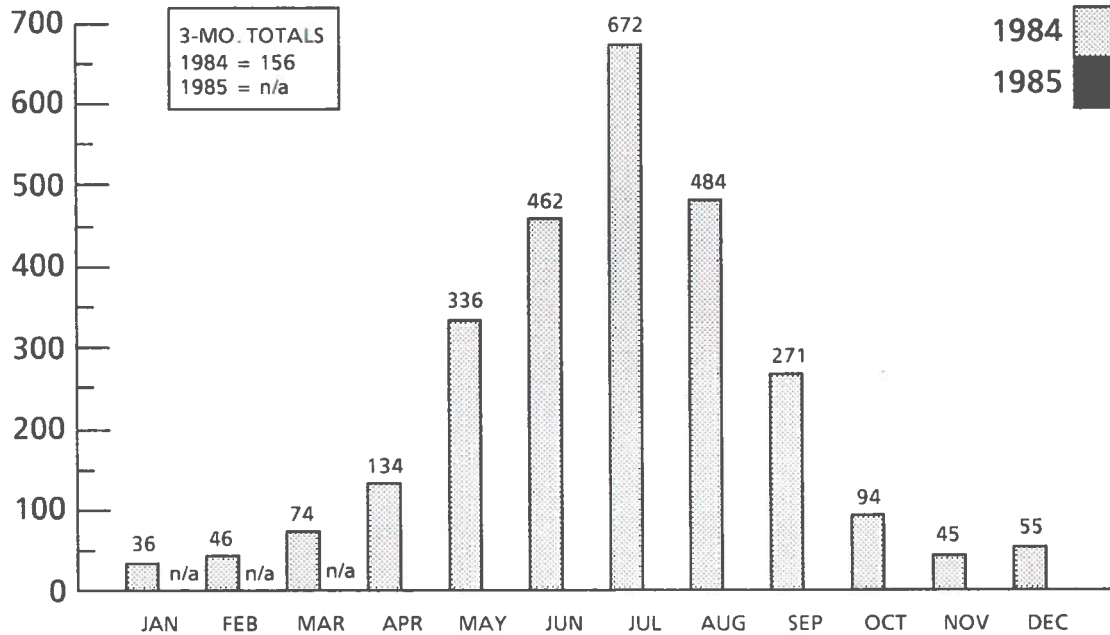
## CHART 20.

### RECREATIONAL BOATING FATALITIES, 1984-1985



## CHART 21.

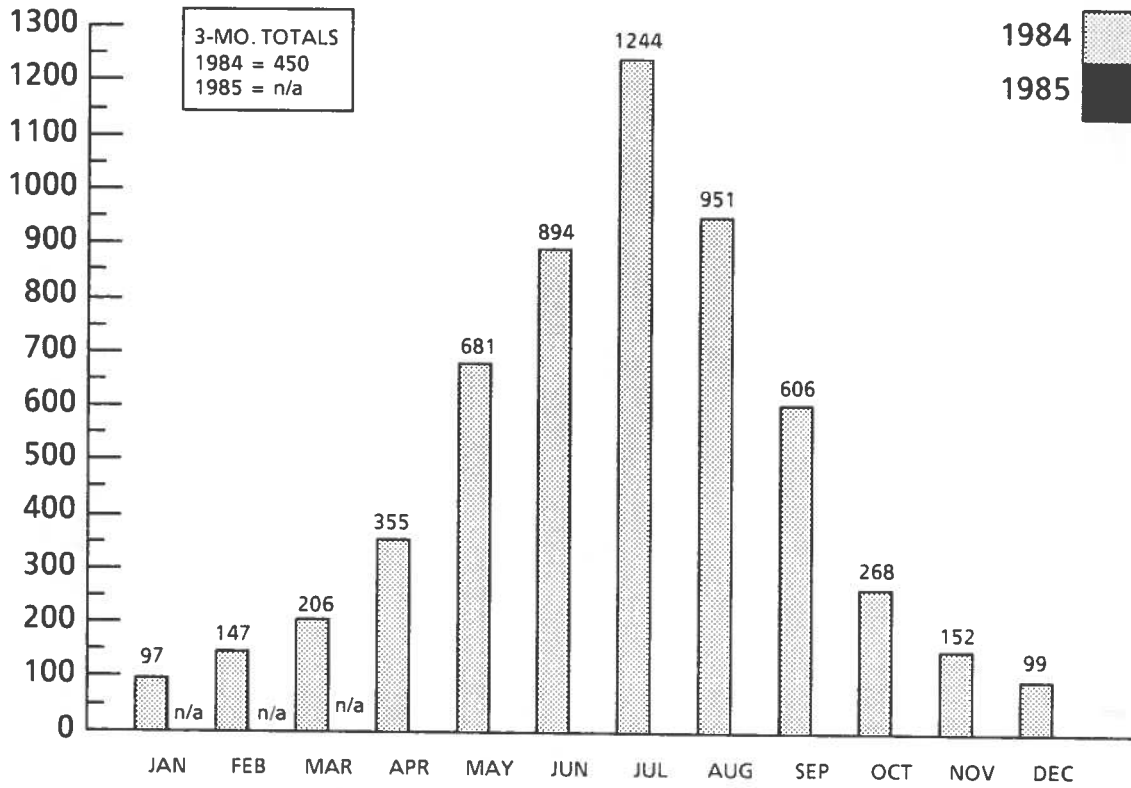
### RECREATIONAL BOATING INJURIES, 1984-1985



SOURCE: BAR File, USCG, Office of Boating, Public, and Consumer Affairs, G-BP-1.

# CHART 22.

## RECREATIONAL BOATING, REPORTED ACCIDENTS 1984-1985



URCE: BAR File, USCG, Office of Boating, Public, and Consumer Affairs, G-BP-1.



## **MATERIALS TRANSPORT**

### **PIPELINES**

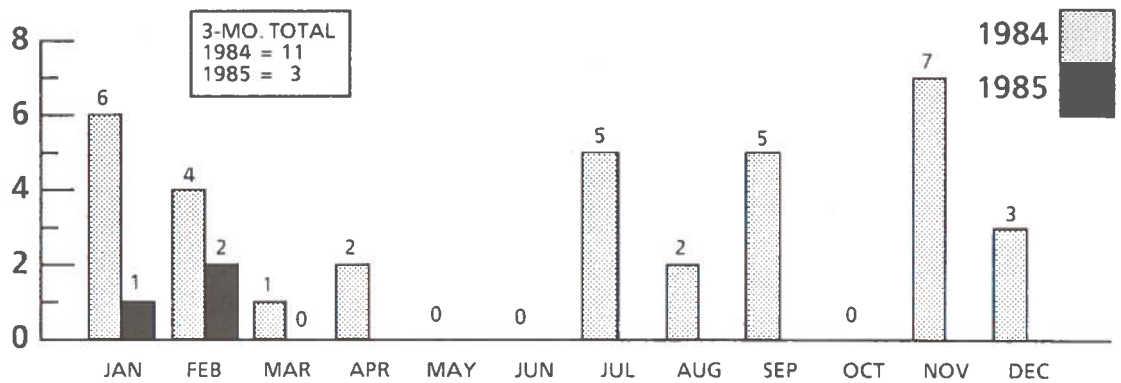
- Fatalities, injuries and leaks/failures involving pipelines transporting gas all experienced a decrease in the first three months of 1985 compared to the first three months of 1984. Fatalities declined from 11 to three, injuries dropped from 81 to 41, and the number of leaks/failures reported fell from 393 to 121.
- The number of Liquid Pipeline leaks/failures remained constant -- 44 leaks/failures were reported in the first quarter of 1985 and 1984, and no fatalities were reported in either quarter. However, there were two injuries in the first three months of 1985 versus one in the first three months of 1984.

### **HAZARDOUS MATERIALS**

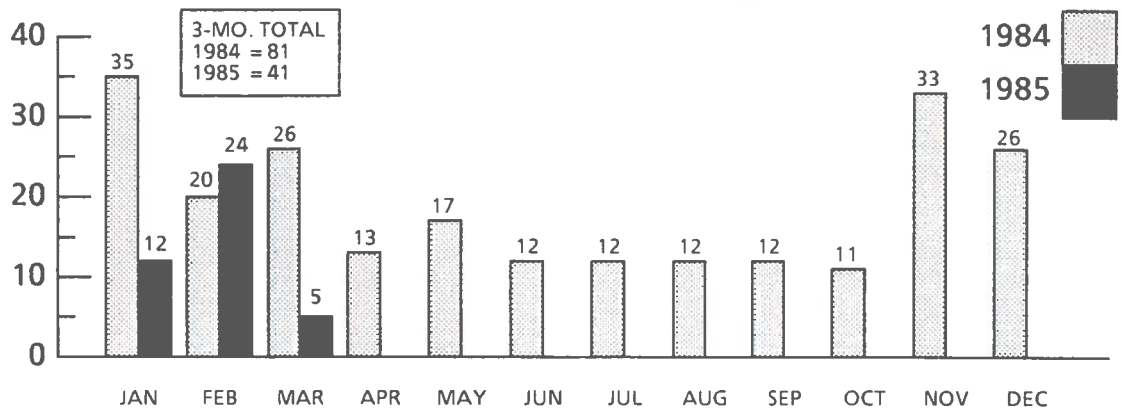
- Hazardous Materials injuries and incidents experienced decreases in the first three months of 1985 compared to the same period of 1984. Injuries decreased from 41 to 27 and the number of incidents declined from 1,351 to 953. Fatalities remained unchanged during this period.



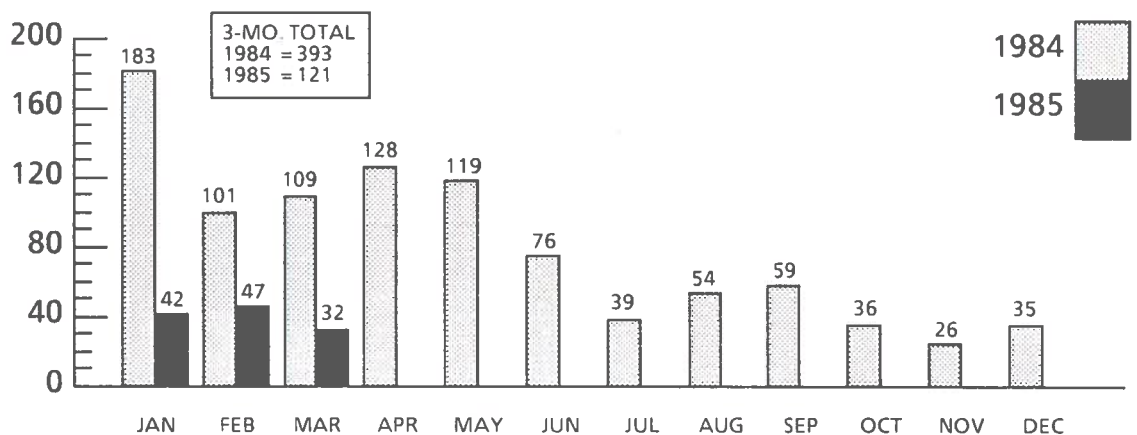
**CHART 23A.**  
**GAS PIPELINE FATALITIES, 1984-1985**



**CHART 23B.**  
**GAS PIPELINE INJURIES, 1984-1985**



**CHART 23C.**  
**GAS PIPELINE LEAKS/FAILURES, 1984-1985**

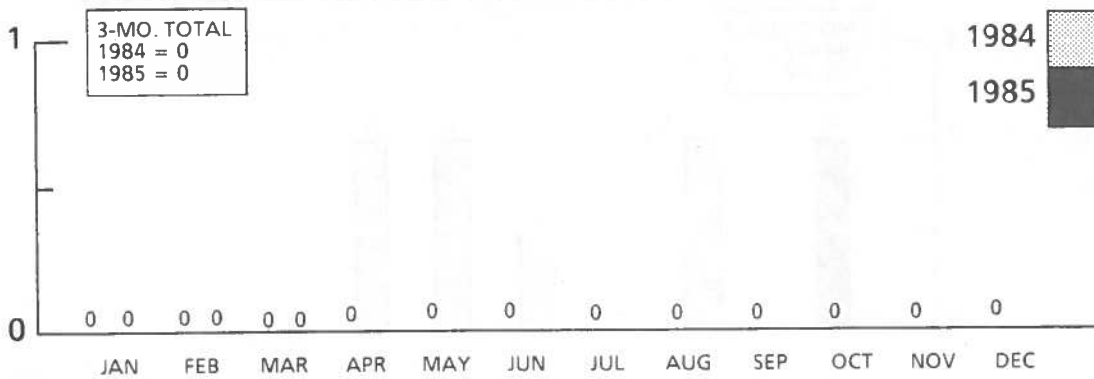


NOTE: 1985 Data are preliminary.  
Pipeline incidents are credited to the year in which they occurred, not the year in which the report was received

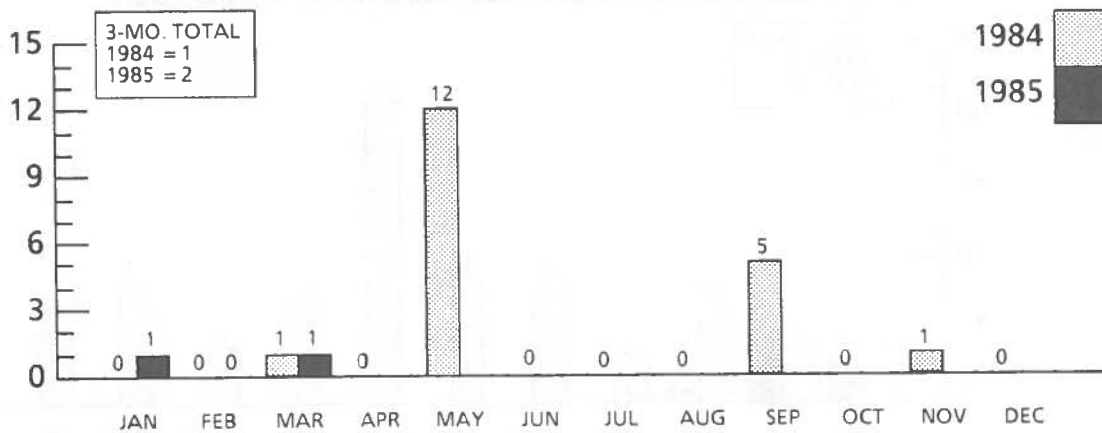
Data supplied as of 4/1/85.

SOURCE: Gas Pipeline: DOT F 7100.1 and F7100.2.  
RSPA, Hazardous Materials Information Systems, DMT-63

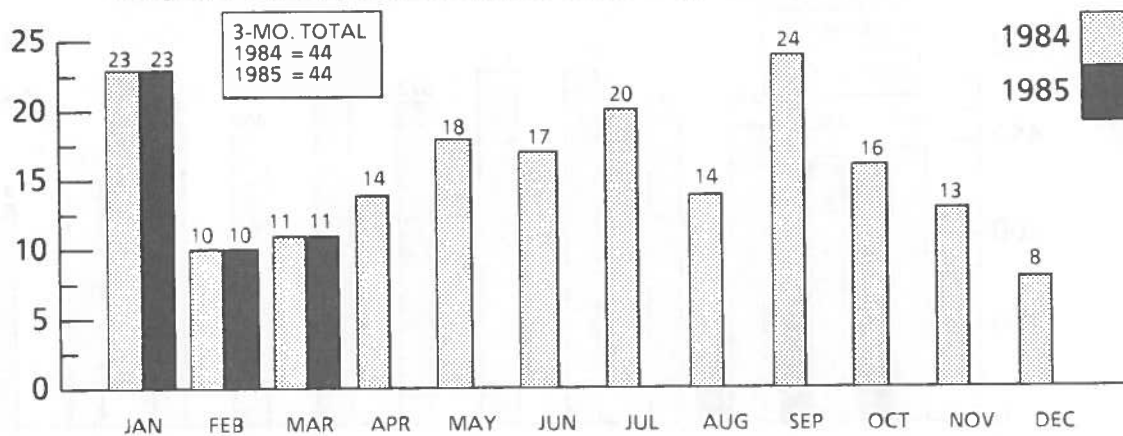
**CHART 24A.**  
**LIQUID PIPELINE FATALITIES, 1984-1985**



**CHART 24B.**  
**LIQUID PIPELINE INJURIES, 1984-1985**



**CHART 24C.**  
**LIQUID PIPELINE LEAKS/FAILURES, 1984-1985**



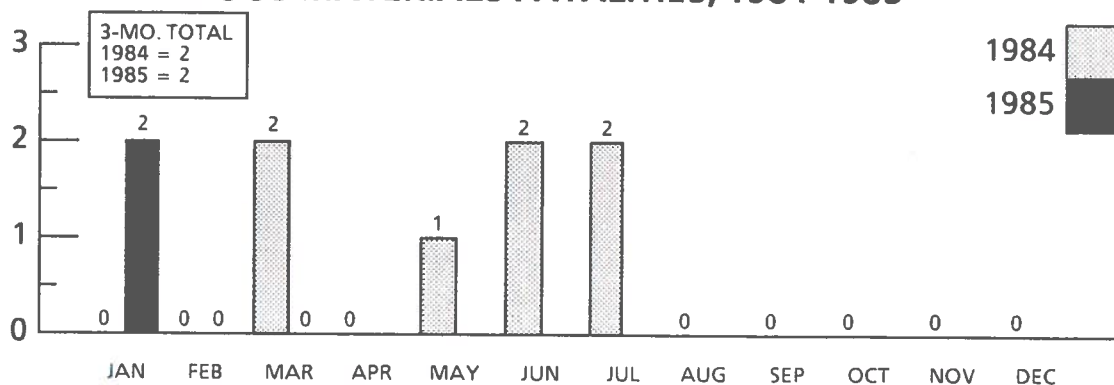
NOTE: 1985 Data are preliminary.  
 Pipeline incidents are credited to the year in which they occurred, not the year in which the report was received.

Data supplied as of 4/1/85.

SOURCE: Liquid Pipeline: DOT F 7000.0  
 RSPA, Hazardous Materials Information Systems, DMT-63.

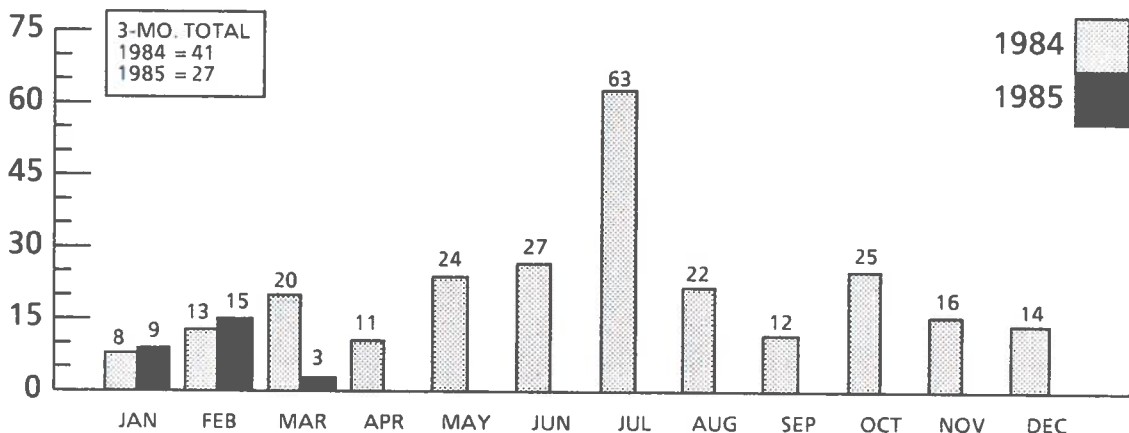
### CHART 25A.

#### HAZARDOUS MATERIALS FATALITIES, 1984-1985



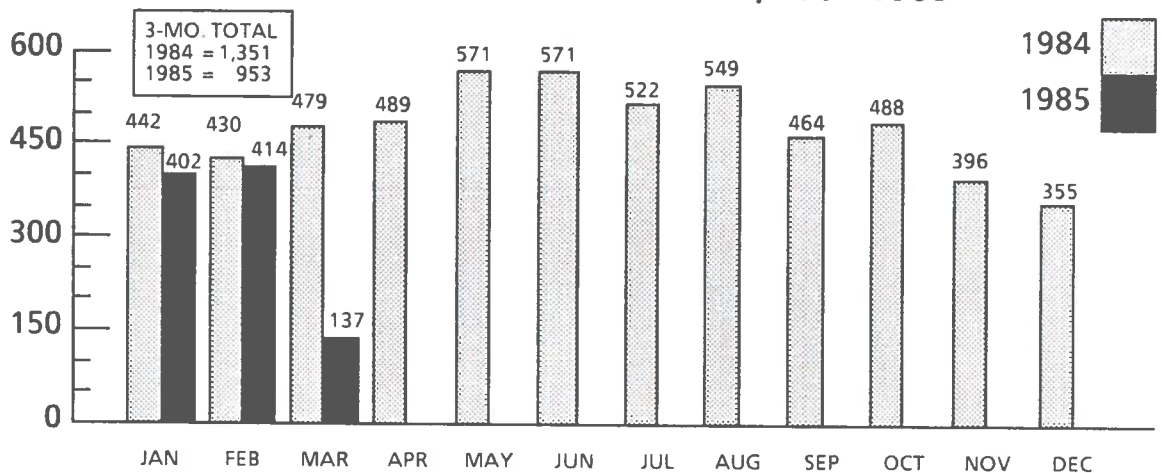
### CHART 25B.

#### HAZARDOUS MATERIALS INJURIES, 1984-1985



### CHART 25C.

#### HAZARDOUS MATERIALS INCIDENTS\*, 1984-1985



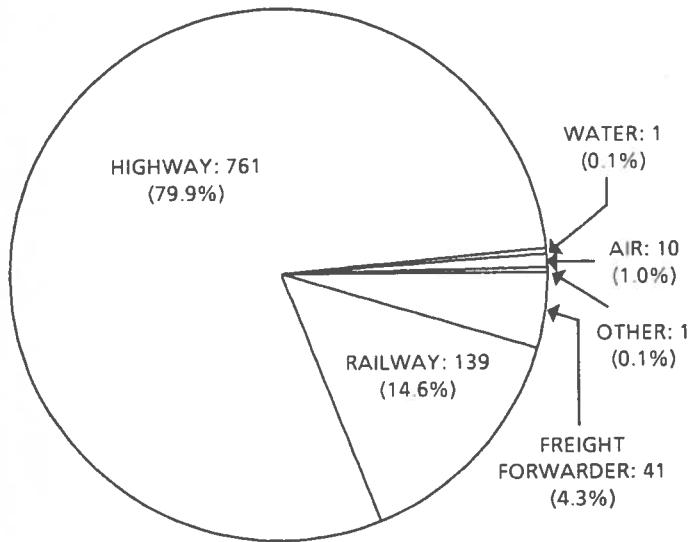
\* Hazardous Materials Incidents are reported in the year in which they occurred.  
NOTE: 1985 Data are preliminary.  
SOURCE: RSPA, Hazardous Materials Information Systems, DMT-63.

Data supplied as of 4/1/85

# CHART 26.

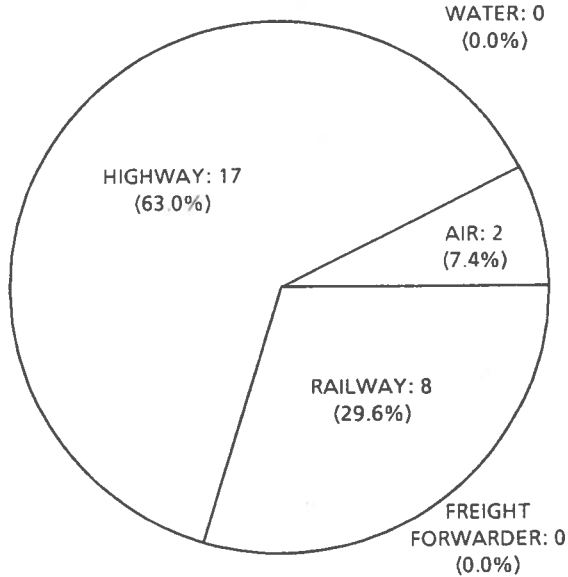
## HAZARDOUS MATERIALS INCIDENTS, INJURIES, DEATHS AND DAMAGES BY MODE, FIRST QUARTER 1985<sup>P</sup>

### Incidents



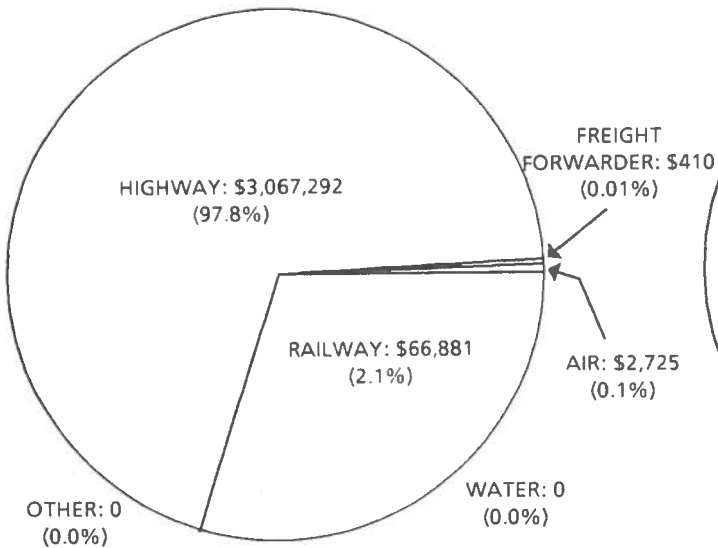
TOTAL INCIDENTS: 953

### Injuries



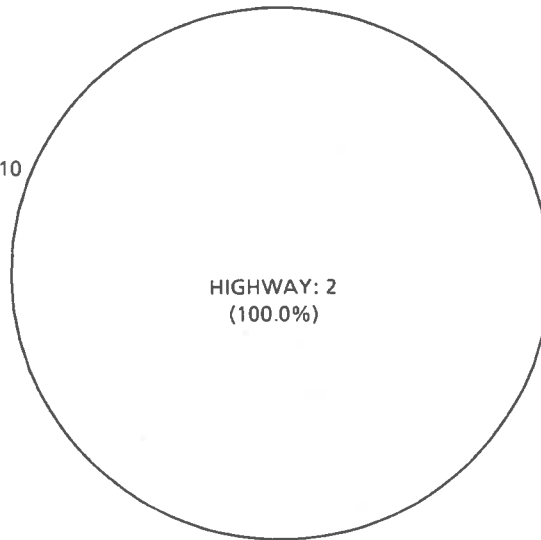
TOTAL INJURIES: 27

### Damages



TOTAL DAMAGES: \$3,137,308

### Deaths



TOTAL DEATHS: 2

P = Preliminary.

SOURCE: RSPA, Hazardous Materials Information Systems, DMT-63.

Data supplied as of 4/1/85.



# **MAJOR DOT SAFETY REGULATIONS**

**JANUARY 1, 1985 - MARCH 31, 1985**

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**

### **33 CFR PART 144 -- Exposure Suits; Requirements for Mobile Offshore Drilling Units; Correction**

This document corrects an error in the document published on December 31, 1984, 49 FR 50722, relating to areas where exposure suits are required for personnel on board mobile offshore drilling units. (50 FR 3904, January 29, 1985.)

### **33 CFR Part 126 and 160 -- Radioactive Materials**

This rulemaking revises the regulations defining the terms "cargo of particular hazard" and "certain dangerous cargo." It is necessary because the term "large quantity" radioactive shipment used in these definitions was deleted in a recent change to 49 CFR Parts 171 through 178. The intended effect of the regulations is to substitute the new term "highway route controlled quantity" for the obsolete term "large quantity." Effective date April 3, 1985. (50 FR 8612, March 4, 1985.)

### **46 CFR Parts 153 and 154 -- Compliance Procedures for Self-Propelled Foreign Flag Vessels Carrying Hazardous Liquids and Bulk Liquefied Gases**

This amendment revises the rules for self-propelled foreign flag vessels carrying bulk hazardous liquids and liquefied gases. It simplifies the examination and certification procedures for these vessels and makes them more consistent with the procedures for other tankers. It also reduces the amount of information the vessel owner must supply to Commandant (G-MTH) with the initial application. For the required examinations of a vessel accepted on the basis of an International Maritime Organization (IMO) Certificate of Fitness, the amendment makes two important changes; it requires that the vessel owner request the examination directly with the Officer in Charge, Marine Inspection instead of through Commandant (G-MTH) and it reduces the advance notice for the request from fourteen to seven days. The fourteen day advance notice to Commandant (G-MTH) required previously is now required only for vessels accepted on the basis of Coast Guard plan review. In order to correspond with terminology used in the law, the amendment replaces Letter of Compliance with Certificate of Compliance as the name of the document required for a foreign flag tanker carrying Subchapter O cargo in United States waters; however, until the new Certificate of Compliance is developed, the Letter of Compliance form will continue to be issued to fulfill the requirement for a Certificate of Compliance. Effective date April 19, 1985. (50 FR 8730, March 5, 1985.)

### **46 CFR Parts 50, 52, 53, 54, 58, 63 and 162 -- Marine Engineering Regulations for Merchant Vessels; Acceptance of ASME S, E, A and H Symbol Stamps for Power and Heating Boilers**

These regulations replace the current Coast Guard requirements for plan approved and shop inspection of boilers with requirements that boilers be inspected and stamped in accordance with the American Society of Mechanical Engineers' Boiler and Pressure Vessel Code. These regulations

bring Coast Guard requirements for boilers in line with current industry practice and take maximum advantage of an industry safety standard which is recognized throughout the world and an inspection system already in existence. Several boiler and pressure vessel manufacturers have requested a changeover to ASME inspection and stamping because of frequent delays involved in having plan approval and shop inspections performed by the Coast Guard. ASME inspectors are more readily available to perform shop inspections in a timely manner, and the use of registered professional engineers to certify plans will minimize the time needed for Coast Guard pre-installation inspections. Effective date May 7, 1985. (50 FR 9428, March 8, 1985.)

## **FEDERAL AVIATION ADMINISTRATION**

### **14 CFR Part 121 -- Airplane Cabin Fire Protection**

This amendment establishes equipment requirements to improve cabin fire protection for passenger-carrying transport category airplanes operated under Part 121. This amendment requires that each lavatory be equipped with a smoke detector system, or equivalent, which provides warning to the cockpit or to the passenger cabin crew. It requires that each lavatory trash receptacle be equipped with a fire extinguisher which discharges automatically upon occurrence of a fire in the receptacle. It increases the number of hand fire extinguishers required to be installed in the passenger cabins of airplanes with passenger seating capacities greater than 60 and requires that at least 2 of the hand fire extinguishers installed in each airplane have Halon 1211, or equivalent, as the extinguishing agent. This amendment is the result of investigations of in-flight fires and an inspection survey of the U.S. air carrier fleet which indicated the need for an increase in protection against in-flight fires. Effective date April 29, 1985. (50 FR 12726, March 29, 1985.)

### **14 CFR Part 39 -- Airworthiness Directives; Sikorsky Model S-76A Helicopters Certificated in All Categories**

This action publishes in the Federal Register and makes effective as to all persons an amendment adopting a new airworthiness directive (AD) which was previously made effective as to all known U.S. owners and operators of Sikorsky S-76A helicopters, certificated in all categories, by individual letters. The AD requires replacement of the main rotor pitch horn at 5,500 hours' time in service. The AD is needed to prevent operations with a component that has exceeded its revised replacement time. Effective date January 10, 1985. (50 FR 10, January 2, 1985.)

### **14 CFR Part 39 -- Airworthiness Directives; Hamilton Standard Model 23LF-335 and -371 Propellers**

This amendment adopts a new airworthiness directive (AD) which requires repetitive dye penetrant inspections on Hamilton Standard Model 23LF-335 and -371 variable pitch propellers. The AD is needed to detect cracks in the propeller blades/counterweights which could result in loss of a propeller blade/counterweight and possible engine separation from the aircraft. Effective date January 3, 1985. (50 FR 447, January 4, 1985.)

### **14 CFR Part 39 -- Airworthiness Directives; McDonnell Douglas Model DC-9-10, -20, -30, -40, -50, and C-9 (Military) Series Airplanes**

This amendment adds a new airworthiness directive (AD) which requires inspection and modifications if necessary of the main landing gear (MLG) attach fittings on certain McDonnell Douglas DC-9 series airplanes. This AD would require repetitive inspections of the MLG attach fittings fabricated from 7075-T73 forging alloy. This action is prompted by reports of MLG fitting cracks, the failure of which could result in significant damage to the wing MLG supporting/fitting

structures and subsequent collapse of the main landing gear. Effective date January 27, 1985. (50 FR 448, January 4, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; Boeing Model 727 Series Airplanes**

This action amends Airworthiness Directive (AD) 75-09-04 which requires repetitive inspections of the horizontal stabilizer rear spar center section for cracks. This amendment adds an alternate means of compliance which will allow adjustment of the repetitive inspection intervals specified in the AD to permit compliance at an established inspection period of an operator, if the request contains substantiating data to justify the increase for that operator. Effective date January 22, 1985. (50 FR 2771, January 22, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; Boeing Model 737 Series Airplanes**

This amendment adds a new airworthiness directive (AD) which requires structural inspections and repair, or modification as necessary, of the frames adjacent to the forward airstair doorway cutout. The AD is prompted by numerous reports of cracking of these frames. Concurrent cracking of the frames and door cutout internal doubler can result in sudden loss of cabin pressure and possible blowout of the airstair door. Effective date February 25, 1985. (50 FR 2771, January 22, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; Boeing Model 737 Series Airplanes**

This amendment adds a new airworthiness directive (AD) which requires inspection and repair, as necessary, of the side of body rib upper chord at body buttock line (BBL) 70.85 and body station (BS) 663.75 on certain Boeing Model 737 series airplanes to ensure continued airworthiness. This action has been prompted by numerous reports of cracking in this vicinity. Failure to detect cracks in the BBL 70.85 rib upper chord prior to their reaching critical length may result in severe reduction of load carrying capability and possible rapid loss of cabin pressure. Effective date February 25, 1985. (50 FR 2773, January 22, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; Boeing Model 747 Series Airplanes Equipped with Certain B.F. Goodrich Slides**

This amendment adds a new airworthiness directive (AD) which requires replacement of O-rings used in evacuation slide and slide/raft pressure regulators on Boeing Model 747 airplanes equipped with B.F. Goodrich slides and slide/rafts. This AD is prompted by several inflation malfunctions experienced by operators which have resulted in delayed inflation or non-inflation of the units following deployment. This situation could jeopardize successful emergency evacuation of an airplane. Effective date March 4, 1985. (50 FR 3884, January 29, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; McDonnell Douglas Model DC-9 Series Airplanes**

This amendment adopts a new airworthiness directive (AD) that would require inspection of the fuselage lower skin in the immediate area surrounding the VHF antenna, on certain McDonnell Douglas DC-9 series airplanes. This amendment is prompted by reports of cracks in the skin adjacent to the mounting holes for the VHF antenna. If allowed to go undetected, this type of crack could result in rapid depressurization of the airplane. Effective date February 1, 1985. (50 FR 4637, February 1, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; Bell Helicopter Textron, Inc., Model 47 Helicopters**

This amendment adopts a new airworthiness directive (AD) which requires replacement of any incorrect AN/NAS standard bolts, installed in certain flight control applications, with the required



Bell Helicopter Textron, Inc., standard bolts on all Bell Model 47 helicopters equipped with 37-foot diameter main rotor systems and hydraulic boost in longitudinal and lateral cyclic flight control systems. The AD is needed to prevent failure of the incorrect AN/NAS standard bolts which could cause the loss of a helicopter as a result of inoperative flight controls. Effective date February 6, 1985. (50 FR 4857, February 4, 1985.)

#### **14 CFR Part 21 -- Special Conditions; Fairchild Model SA227 Series Airplanes to Type Certificate No. A8SW**

This special conditions amendment is issued to become part of the type certification basis for new Fairchild Aircraft Corporation (FAC) Model SA227-PC airplanes to be added to Type Certificate No. A8SW. These airplanes will have novel or unusual design features associated with turbopropeller engine installations incorporating Automatic Power Reserve (APR) Systems for which the applicable airworthiness regulations do not contain adequate or appropriate safety standards. This amendment contains the additional safety standards which the Administrator finds necessary to establish a level of safety equivalent to that established in the regulation applicable to the SA227-PC airplane. A Notice of Proposed Special Conditions, Notice No. 23-ACE-6, was published in the Federal Register on September 6, 1984 (49 FR 35123) and one commenter (FAC), responded to that notice.

A similar set of special conditions were published as Notice of Proposed Special Conditions, Notice No. 23-ACE-9 (49 FR 35121, September 6, 1984) for the British Aerospace Jetstream Model 3101 airplane. No comments were received in response to that notice. These special conditions were subsequently adopted as final special conditions and published in the Federal Register (50 FR 7, January 2, 1985), effective February 1, 1985. Effective date March 11, 1985. (50 FR 5369, February 8, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; Boeing Model 737 Series Airplanes**

This amendment adds a new airworthiness directive (AD) which requires structural inspections, and replacement or modification, as necessary, of the wing-to-body drag angle on certain Boeing Model 737 series airplanes to ensure continued airworthiness. The AD is prompted by numerous reports of cracking of these angles. Continued operation with failed angles could lead to progressive cracking of adjacent structure and rapid decompression. Effective date March 11, 1985. (50 FR 5569, February 11, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; British Aerospace Model HS 748 Airplanes**

This amendment adds a new airworthiness directive (AD) applicable to certain British Aerospace Model HS 748 airplanes which requires inspections, modifications, and repairs, as necessary, to passenger and cargo door components to correct certain unsafe conditions relative to improper door closing, jamming, and false closing indications. This action is necessary to ensure that all doors properly close and lock. Effective date March 11, 1985. (50 FR 5570, February 11, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; Teledyne Continental Motors TS10-520BE Engines**

This action publishes in the Federal Register and makes effective an amendment adopting a new airworthiness directive (AD) which was previously made effective to all known U.S. owners and operators of certain Teledyne Continental Motors TS10-520BE engines by individual letters. The AD requires visual inspection of the turbocharger oil scavenge reservoir within 5 hours time in service, and thereafter at intervals not to exceed 10 hours of time in service. The AD is needed to prevent the loss of engine oil which could result in the total loss of engine power. Effective date March 4, 1985. (50 FR 6155, February 14, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; Boeing Model 727 and 737 Series Airplanes**

This document amends an existing airworthiness directive (AD) applicable to Boeing Model 727 and 737 series airplanes, which requires installation of a positive indication of starter operation, by extending the compliance time. The time extension is necessitated by the lack of an adequate supply of modification parts. Failure to extend the compliance time could result in the unnecessary grounding of the airplanes affected. Effective date February 23, 1985. (50 FR 6339, February 15, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; Boeing Model 767-200 Series Airplanes**

This amendment adds a new airworthiness directive (AD) applicable to Boeing Model 767-200 airplanes which requires a fuel tank low temperature limit of -37 C (-35 F) and replacement of the fuel boost pumps. There have been reports of fuel boost pumps seizing when exposed to low fuel temperatures in service. This action is necessary to preclude loss of all fuel boost pressure and subsequent potential for multiple engine flameout. Effective date March 28, 1985. (50 FR 7745, February 26, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; Fairchild Aircraft Corporation Models SA226-T, SA226-T(B), SA226-AT, and SA226-TC Airplanes**

This amendment adopts a new airworthiness directive (AD) applicable to certain serial numbered Fairchild Aircraft Corporation Models SA226-T, SA226-T(B), SA226-AT, and SA226-TC airplanes. This AD supersedes and incorporates certain requirements of AD 83-19-02 and also requires modification of the hydraulic and oxygen systems by replacing certain hydraulic lines and oxygen system components. Recent service history indicates that lines and system components have failed resulting in leakage of flammable fluids and oxygen in the cockpit area which could possibly result in a catastrophic fire. This action will prevent a cockpit fire arising from these conditions and improve the reliability of the hydraulic system by changing tube material from aluminum alloy 5052-0 to aluminum alloy 6061-T6 for certain lines that previously failed from longitudinal fatigue cracking. Effective date March 30, 1985. (50 FR 7748, February 26, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; British Aerospace Model BAe-146 Airplanes**

This amendment adds a new airworthiness directive (AD) applicable to certain BAe-146 airplanes which requires a one-time inspection of the escape chute girt bars on the passenger/service doors to insure they are properly assembled. There have been two reported cases of the girt bar becoming detached from the floor bracket during a demonstration of the escape chute operation, resulting in separation of the chute from the airplane. Loss of the escape chute could prevent safe emergency evacuation of the airplane. Effective date April 1, 1985. (50 FR 8319, March 1, 1985.)

#### **14 CFR Part 39 -- Airworthiness Directives; Sikorsky Model S-76A Helicopters Certificated in All Categories**

This action publishes in the Federal Register and makes effective as to all persons an amendment adopting a new airworthiness directive (AD) which was previously made effective as to all known U.S. owners and operators of Sikorsky S-76A helicopters by individual telegrams. This AD requires inspections of the engine compartment center firewall for proper installation, fit, and clearance with the rotating tail rotor driveshaft and prescribes corrective modifications and repairs if unsafe conditions are found. This AD is needed to prevent damage to the tail rotor driveshaft and subsequent loss of directional control of the helicopter which may occur if the engine compartment center firewall is not correctly installed. Effective date March 7, 1985. (50 FR 10219, March 14, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; B.F. Goodrich Main Landing Gear Wheel Assemblies, Used on Lockheed Model L-1011 Airplanes and Boeing Model 727 Airplanes**

This amendment adopts a new airworthiness directive (AD) which requires the inspection and removal of certain tie bolt nuts that may be installed on B.F. Goodrich main landing gear wheels used on Lockheed L-1011 and Boeing Model 727 airplanes. This AD is prompted by reported cases of cracked tie bolt nuts. Cracked nuts have been discovered at wheel buildup, in line station space assemblies, and on in-service aircraft. The inspection for and removal of these tie bolt nuts is necessary to preclude main wheel assembly damage or failure. Effective date March 19, 1985. (50 FR 10934, March 19, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; McDonnell Douglas Model DC-9-10, -20, -30, -40, -50, and C-9 (Military) Series Airplanes**

This amendment adopts a new airworthiness directive (AD) which requires visual/borescope inspection (NDI) of the aft pressure bulkhead on certain McDonnell Douglas DC-9 (Military) series airplanes. This AD is prompted by reports of cracks in the free standing leg of the tee cap. This condition, if not corrected, could result in rapid depressurization and cause severe structural damage of the airplane. Effective date March 19, 1985. (50 FR 10936, March 19, 1985.)

**14 CFR Part 39 -- Airworthiness Directives; McDonnell Douglas Model DC-9 and C-9 (Military) Airplanes**

This amendment adds a new airworthiness directive (AD) which requires modification of the battery charger on McDonnell Douglas Model DC-9 and C-9 (Military) airplanes. Six incidents of battery charger failures have been reported. Since all six failed battery chargers showed evidence of overheat, this action is necessary to prevent the potential for a localized fire and the potential loss of both the Battery Direct and Battery Buses which provide emergency electrical power. Effective date May 20, 1985. (50 FR 11843, March 26, 1985.)

## **FEDERAL HIGHWAY ADMINISTRATION**

**49 CFR Part 387 -- Minimum Levels of Financial Responsibility for Motor Carriers of Passengers**

The FHWA is amending the Federal Motor Carrier Safety Regulations (FMCSR) to implement provisions required by Section 224 of the Motor Carrier Safety Act of 1984. Section 224 amends Section 18(d) of the Bus Regulatory Reform Act of 1982 by: (1) Requiring motor carriers of passengers domiciled in any contiguous foreign country to carry on board each vehicle it operates in the United States evidence of financial responsibility, and (2) directing the Secretary of Transportation and the Secretary of Treasury authority to deny entry into the United States of any passenger carrying vehicle which does not have the required evidence of financial responsibility in the vehicle. Effective date February 20, 1985. (50 FR 7062, February 20, 1985.)

**23 CFR Parts 625 and 655 -- National Standards for Traffic Control Devices; Manual on Uniform Traffic Control Devices**

This document contains notice of amendments to the Manual on Uniform Traffic Control Devices (MUTCD) which are being adopted by the Federal Highway Administrator for inclusion therein. The MUTCD is incorporated by reference in the design standards for Federal-aid highways in 23 CFR Part 625. It is also recognized in Part 655 as the national standard for traffic control devices on all public roads. The amendments affect various parts of the MUTCD and are intended to expedite

traffic, improve safety and provide a more uniform application of highway signs, signals, and markings. Effective date July 22, 1985. (50 FR 10001, March 13, 1985.)

## **FEDERAL RAILROAD ADMINISTRATION**

### **49 CFR Part 229 -- Railroad Locomotive Safety Standards**

FRA is amending the Railroad Locomotive Safety Standards (40 CFR Part 229) to eliminate or reduce certain reporting and recordkeeping requirements that are no longer necessary for safety. This action is taken by FRA to reduce the Federal paperwork burden in accordance with the Paperwork Reduction Act of 1980 (Pub. L. 96-611). Effective date March 21, 1985. (50 FR 6952, February 19, 1985.)

## **NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

### **49 CFR Part 571 -- Lamps, Reflective Devices and Associated Equipment; Correction**

This notice corrects an error in the amendment published on November 26, 1984 (49 FR 46386) relating to lamps, reflective devices and associated equipment. The error appears in the amendment to Table II and IV. It is therefore necessary to correct the error. The maximum mounting height for headlamps was omitted. (50 FR 3911, January 29, 1985.)

### **49 CFR Part 571 -- Vehicle Identification Numbers; Correction**

On May 19, 1983, the agency published an amendment to Standard No. 115, Vehicle identification number. The amendment exempted from certain of the vehicle identification number (VIN) requirements vehicles imported into the United States under bond which do not meet U.S. standards at the time of importation, but which subsequently will be modified to meet those standards. This notice corrects a typographical error in that amendment, in order to clarify the specific provisions from which such importers are exempted. Effective date January 30, 1985. (50 FR 4221, January 30, 1985.)

### **49 CFR Part 571 -- Federal Motor Vehicle Safety Standards; Brake Hoses**

The purpose of this notice is to amend Federal Motor Vehicle Safety Standard (FMVSS) No. 106, Brake Hoses, by allowing the use of brake hoses that are labeled in metric sizes. The agency received a petition for rulemaking from Saab-Scania to amend Standard No. 106 to allow the use of millimeter sizes in the labeling of air brake hose. The agency issued a notice of proposed rulemaking which proposed to allow manufacturers to label their brake hoses with metric units, and provided performance requirements in the standard for metric sized brake hoses which were equivalent to the present requirements for English sized hoses. This final rule primarily addresses Saab-Scania's petition to allow the use of brake hoses manufactured in metric sizes and is thus more limited than the proposal. Effective date June 3, 1985. (50 FR 4688, February 1, 1985.)

### **49 CFR Part 555 -- Temporary Exemption from Federal Motor Vehicle Safety Standards**

This notice amends the temporary exemption regulations to correct an error appearing in the Code of Federal Regulations which has left incomplete the wording required for certification labels on exempted vehicles. The error has appeared in §555.9 of Title 49 CFR in volumes revised as of October 1, 1982, 1983, and 1984. Since this amendment simply corrects the CFR text, it is effective upon

publication without notice or opportunity to comment. Effective date March 18, 1985. (50 FR 10771, March 18, 1985.)

#### **49 CFR Parts 571 and 574 -- Tire Identification and Recordkeeping; New Pneumatic Tires for Motor Vehicles Other Than Passenger Cars**

This notice amends Standard No. 119, New pneumatic tires for motor vehicles other than passenger cars and Part 574, Tire identification and recordkeeping, to permit the marking required by that standard to appear at a point other than between the maximum section width and the bead of the tire. This amendment, which responds to a petition for rulemaking from Michelin Tire Corporation, will permit the manufacture of tires where the maximum section width of the tire is at the bead. The purpose of the current requirements is to locate certain safety markings in an area where they would not be scuffed off when the sidewall of the tire hits a curb or other objects, and so that accurate information would remain on the sidewall after a tire has been retreaded. However, we have concluded that alternatives are available to solve these concerns, and therefore, the rule should be amended to permit the introduction of a new tire technology. Effective date May 2, 1985. (50 FR 10772, March 18, 1985.)

#### **49 CFR Part 571 -- Federal Motor Vehicle Safety Standards; Door Locks and Door Retention Components**

The purpose of this notice is to amend Federal Motor Vehicle Safety Standard No. 206, Door Locks and Door Retention Components, to expand the list of doors that need not conform to the requirements of the standard. Added to the list are doors with wheelchair lifts that are provided with an audible or visual alarm which signals the driver when the door is unsecured and the ignition is in the "on" position. When in its stowed position, a wheelchair lift barricades the door and prevents occupant ejection from the vehicle if the door were to open while the vehicle is in motion or involved in a collision. The alarm ensures that the wheelchair lift is in its retracted position and the door is shut while the vehicle is in operation. This final rule completes a rulemaking action commenced when a manufacturer requested an exemption from the requirements of Standard No. 206. Effective date July 25, 1985. (50 FR 12029, March 27, 1985.)

## **RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION**

#### **49 CFR Parts 171, 172, 173, 174, 175, 176 and 177 -- Classification of Detonating Cord, and Packaging of Detonators**

The description and classification of "cordeau detonant fuse, class C explosive" is changed to "detonating cord, class A explosive" and "detonating cord, class C explosive." The revised description is adopted in order to use proper shipping names that are recognized internationally. Reclassification of detonating cord from class C explosive to class A explosive is considered necessary since it behaves much the same as other materials and articles in the class A explosive hazard class. These changes in description and classification are intended to reduce risks associated with the transportation of detonating cord; thereby achieving a more acceptable level of safety.

Requirements for the packaging of detonators, class A explosives are revised to permit the shipment of detonators in an Institute of Makers of Explosives (IME) standard 22 container or compartment without their first being packed in one of the DOT specification wooden or fiberboard boxes currently required. This revision is necessary for shippers and carriers to maintain currently authorized operating procedures after December 31, 1984. This packaging option is intended to permit use of a container (or compartment) which, through its design and construction, achieves a level of safety that justifies its continued use as an outside packaging for detonators transported on a motor vehicle also



carrying class A explosives, class B explosives, or blasting agents. Effective date October 1, 1985. (50 FR 798, January 7, 1985.)

#### **49 CFR Part 173 -- Coupler Vertical Restraint Systems**

This amendment modifies §173.31(a)(7) to permit certain tank cars to continue in service after February 28, 1985, without coupler vertical restraint systems conforming to 49 CFR 179.105-6. These provisions apply only to tank cars loaded before March 1, 1985, and to so-called empty tank cars subject to §173.29. This action is necessary on an emergency basis because the MTB has been advised that a small percentage of the tank cars subject to the coupler requirement have not been retrofitted and are loaded and in transit, or are empty, but not cleaned and purged. MTB and FRA believe these remaining cars should be authorized to be moved, but not reloaded until they have been retrofitted with the required couplers. Effective date February 28, 1985. (50 FR 8635, March 4, 1985.)

#### **49 CFR Part 107 -- Designation of Testing Agencies; United Nations Packagings**

This final rule adopts a procedure by which MTB may designate third-party packaging testing agencies, for the purpose of certifying conformance of packaging designs with United Nations (U.N.) standards. Third-party testing is adopted as a means through which shippers and container manufacturers may voluntarily demonstrate the adequacy of their packagings, and possibly enhance acceptance of their use in international transportation. This procedure may help to eliminate delays of, or impositions against, U.S. exports transported in packagings not specifically approved by the Materials Transportation Bureau (acting as the National Competent Authority). Effective date July 1, 1985. (50 FR 10060, March 13, 1985.)

#### **49 CFR Parts 172, 173, 174, 175, 176, 177, 178, and 179 -- Shipment of Hazardous Materials; Miscellaneous Amendments**

This action is being taken to incorporate into the Department's Hazardous Materials Regulations a number of changes based on rulemaking petitions from industry and on initiations within the Department. This action is necessary to update the regulations to eliminate the need for filing of reports with MTB and to reduce MTB's backlog of rulemaking petitions.

All of the amendments in this rulemaking are designed to reduce government regulation and paperwork, and to clarify existing regulations. Effective date July 1, 1985. (50 FR 11048, March 19, 1985.)

#### **49 CFR Parts 172, 173, 178, and 179 -- Conversion of Individual Exemptions into Regulations of General Applicability**

This action is being taken to incorporate into the Department's Hazardous Materials Regulations a number of changes based on the data and analyses supplied in selected exemption applications or from existing exemptions. The need for this action has been created by the public demand to make available new packagings and shipping alternatives that have proven themselves safe under the Department's exemptions program. The intended effect of these amendments is to provide wider access to the benefits of transportation innovations recognized and shown to be effective and safe. Effective date April 22, 1985. (50 FR 11700, March 25, 1985.)



# GLOSSARY

## 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.

**Air Taxi** - any use of an aircraft by the holder of an air carrier operating certificate authorized by the certificate, or carries mail on contract (see Paragraph 298.3 of FAR 38).

**Aircraft Accident** - is an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage.

**Aviation Mid-Air Near-Collision** - is broken down into three categories:

- (1) **Critical** - where collision avoidance was due to chance rather than any action taken by either pilot. Less than 100 feet of aircraft separation would be considered critical.
- (2) **Potential** - where a collision would have resulted had no action been taken by either pilot. Closest proximity of less than 500 feet would usually be required in this case.
- (3) **No Hazard** - where a report was made, but subsequent investigation determined that direction and altitude would have made a mid-air collision improbable regardless of evasive action taken.

**Commuter Carrier** - any operator who performs, pursuant to published schedule, at least five round trips per week between two or more points (see Paragraph 298.2 of FAR 38).

**Fatal Injury** - is any injury which results in death within seven days of the accident.

**14 CFR 121** - all air carriers certificated for commercial operations with large aircraft.

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



**14 CFR 125** - aircraft with a seating capacity of 20 or more passengers or a maximum payload of 6,000 pounds or more.

**14 CFR 127** - scheduled air carriers with helicopters.

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

**General Aviation Flying:**

- o 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.
- o 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.
- o 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.
- o Instructional - any use of an aircraft for the purposes of formal flight instruction with or without the flight instructor aboard.
- o 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.
- o 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.

**Serious Injury** - an injury on an Air Carrier which:

- (1) Requires hospitalization for more than 48 hours commencing within seven days from the date when the injury was received;
- (2) Results in a fracture of any bone except fractures of fingers, toes or nose;
- (3) Involves a laceration which causes a severe hemorrhage, nerve, tendon or muscle damage;
- (4) Involves injury to any external organ; and
- (5) Involves second or third degree burns or any burn affecting more than 50 percent of the body surface.

## **HAZARDOUS MATERIALS**

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

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

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

## HIGHWAY

**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.

**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.

**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.

**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.

## PIPELINES

**Gas Distribution** - refers to pipelines transporting natural gas, flammable gas or gas which is toxic or corrosive in distribution operations. (Injury, fatality or accident definitions as shown under "Gas Transmission" below.)

**Gas Transmission** - refers to pipelines transporting natural gas, flammable gas or gas which is toxic or corrosive in transmission or gathering operations.

- o Injury - refers to an injury involving lost time or other than on site medical treatment.
- o Fatality - is a death resulting from the failure or escape of gas.

- o Accident - is a leak requiring immediate repair or other emergency action.

**Liquid Transmission** - refers to pipelines carrying hazardous material, petroleum and petroleum products in liquid form.

- 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.

## **RAIL RAPID TRANSIT (RRT)**

**RRT Accident** - is any accident which satisfies the following threshold levels:

**A. Train Collisions**

1. All rail transit revenue train collisions involving other rail transit equipment (such as revenue or non-revenue trains, work trains or work equipment), persons and/or rail-highway crossings.
2. Collisions between revenue trains and other obstacles (shopping carts, foreign objects, etc.) which result in \$5,000 or greater property damage, or casualties.

"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.

## **RAILROAD**

**Fatality -**

- (1) The death of any person from an injury within 365 days of the accident/incident;
- (2) The death of a railroad employee from occupational illness within 365 days after the occupational illness was diagnosed by a physician.
- (3) Occupational illness of a railroad employee, as diagnosed by a physician.

**Injury -**

- (1) Injury to any person other than a railroad employee that requires medical treatment;
- (2) Injury to a railroad employee that requires medical treatment or results in restriction of work or motion for one or more workdays, one or more lost workdays, termination of employment, transfer to another job, or loss of consciousness; or

**Non-Train Incident -** is any event arising from the operation of a railroad, but not from the movement of equipment, which results in a reportable death, injury or illness.

**Nontrespassers -** are persons who are lawfully on that part of railroad property which is used in railroad operation and persons adjacent to railroad premises and injured as the result of the operation of a 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.

**Rail-Highway Grade-Crossing Accident/Incident** - is any impact between railroad on-track equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, or pedestrian, at a rail-highway grade 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 \$4,900 in damages to railroad on-track equipment, signals, track, track structures, or roadbed. Prior to 1985, this threshold stood at \$4,500; prior to 1983, 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.

**Train Incident** - is a collision, derailment, fire, explosion, act of God, or other event involving operation of railroad on-track equipment, which results in a reportable death, injury, or illness, but involves less than \$4,900 in damages to railroad on-track equipment, signals, track, track structures, or roadbed. Prior to 1985, this threshold stood at \$4,500; prior to 1983, 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.

**Trespassers** - are persons who are on that part of railroad property used in railroad operation, and whose presence is prohibited, forbidden or unlawful. A person on a rail-highway grade crossing is classified as a trespasser if the crossing is protected by gates or other similar barriers which were closed when the person entered the crossing. He is also a trespasser if he attempts to pass over or under trains or cars at the crossings.

## RECREATIONAL BOATING

**Accident** - occurrences involving recreational vessels or their equipment are required to be reported whenever they result in any of the following:

- a. A death;
- b. A person is injured and requires medical treatment beyond first aid;
- c. Damage to the vessel and other property damage totaling more than \$200; or
- d. A person's disappearing from the vessel under circumstances indicating death or injury.

**Fatality** - refers to all deaths (other than deaths by natural causes) and missing persons resulting from an occurrence that involves a vessel or its equipment.

**Injury** - refers to all injuries meeting the criteria set forth in b. above, resulting from an occurrence that involves a vessel or its equipment.

## **WATERBORNE TRANSPORTATION**

**Casualty** - casualties involving commercial vessels are required to be reported to the Coast Guard whenever the casualty results in the following:

- a. Actual physical damage to property in excess of \$25,000.
- b. Material damage affecting the seaworthiness or efficiency of a vessel.
- c. Stranding or grounding.
- d. Loss of life.
- e. Injury causing any persons to remain incapacitated for a period in excess of 72 hours, except injury to harbor workers not resulting in death and not resulting from vessel casualty or vessel equipment casualty.

**Fatality** - refers to all deaths and missing persons resulting from a vessel casualty.

**Injury** - this term refers to all personal injuries resulting from a vessel casualty.

**Non-Vessel-Casualty-Related Death** - is one which occurs on board a commercial vessel, but not as a result of a vessel casualty, such as collision, fire, or explosion.

**Vessel-Casualty-Related Death** - is one which occurs on board a commercial vessel as a result of a vessel casualty, such as collision, fire, or explosion.

**Waterborne Transportation** - is the transport of freight and/or people by commercial vessels under USCG jurisdiction.

## **NOTES**

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