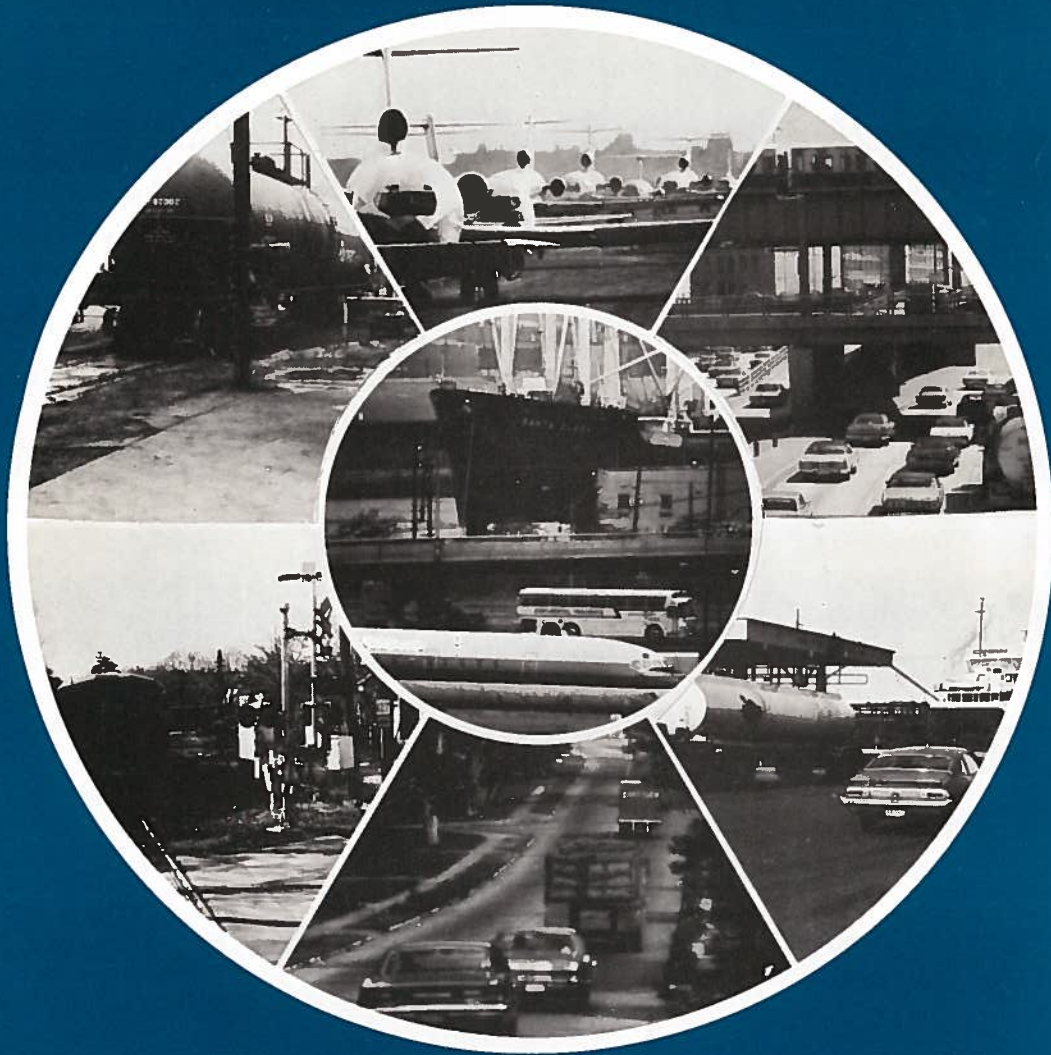




U.S. Department
of Transportation
**Research and
Special Programs
Administration**

Transportation Safety Information Report

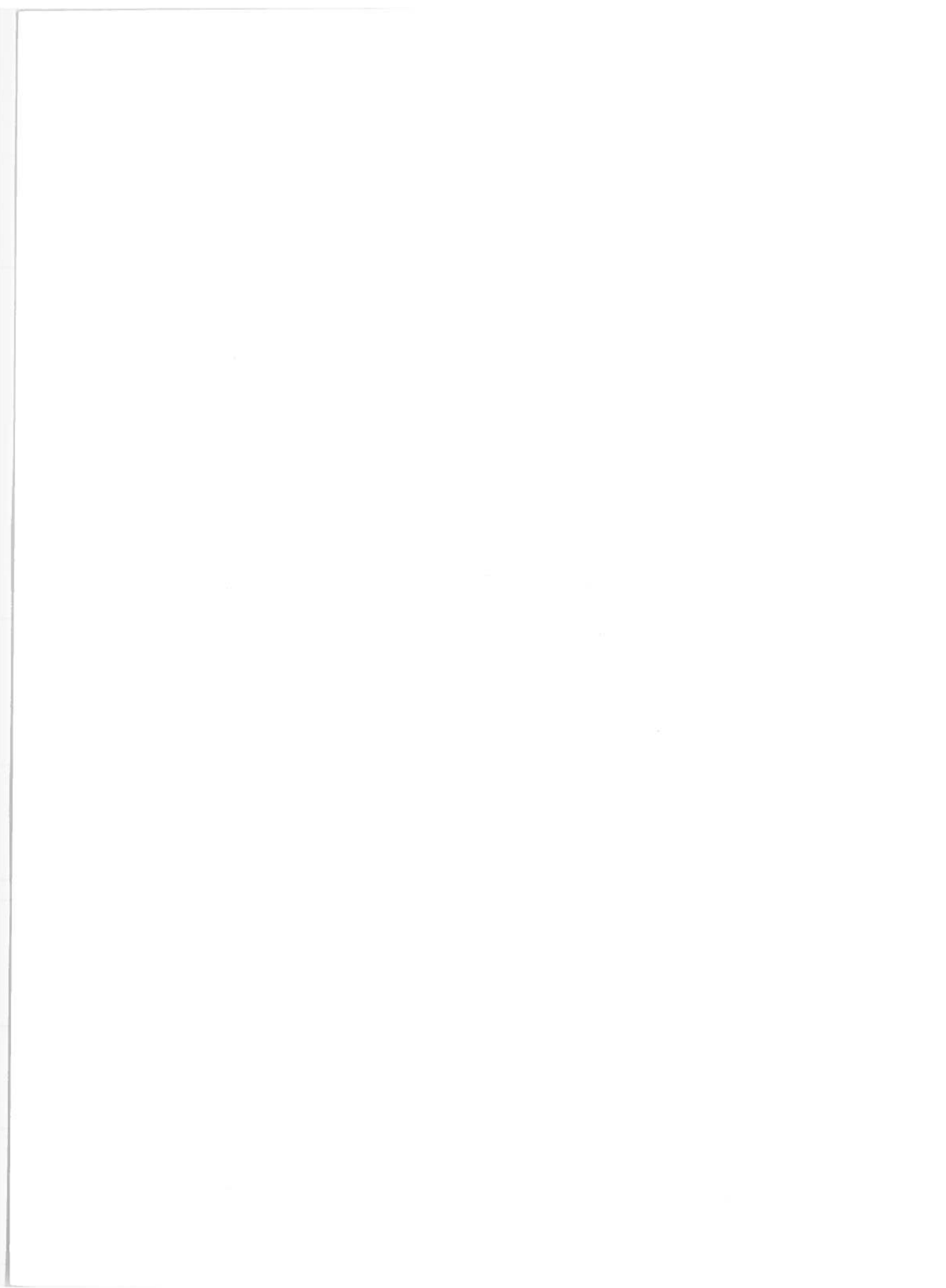
First Quarter 1986



Transportation Systems Center

Technical Report Documentation Page

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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.			
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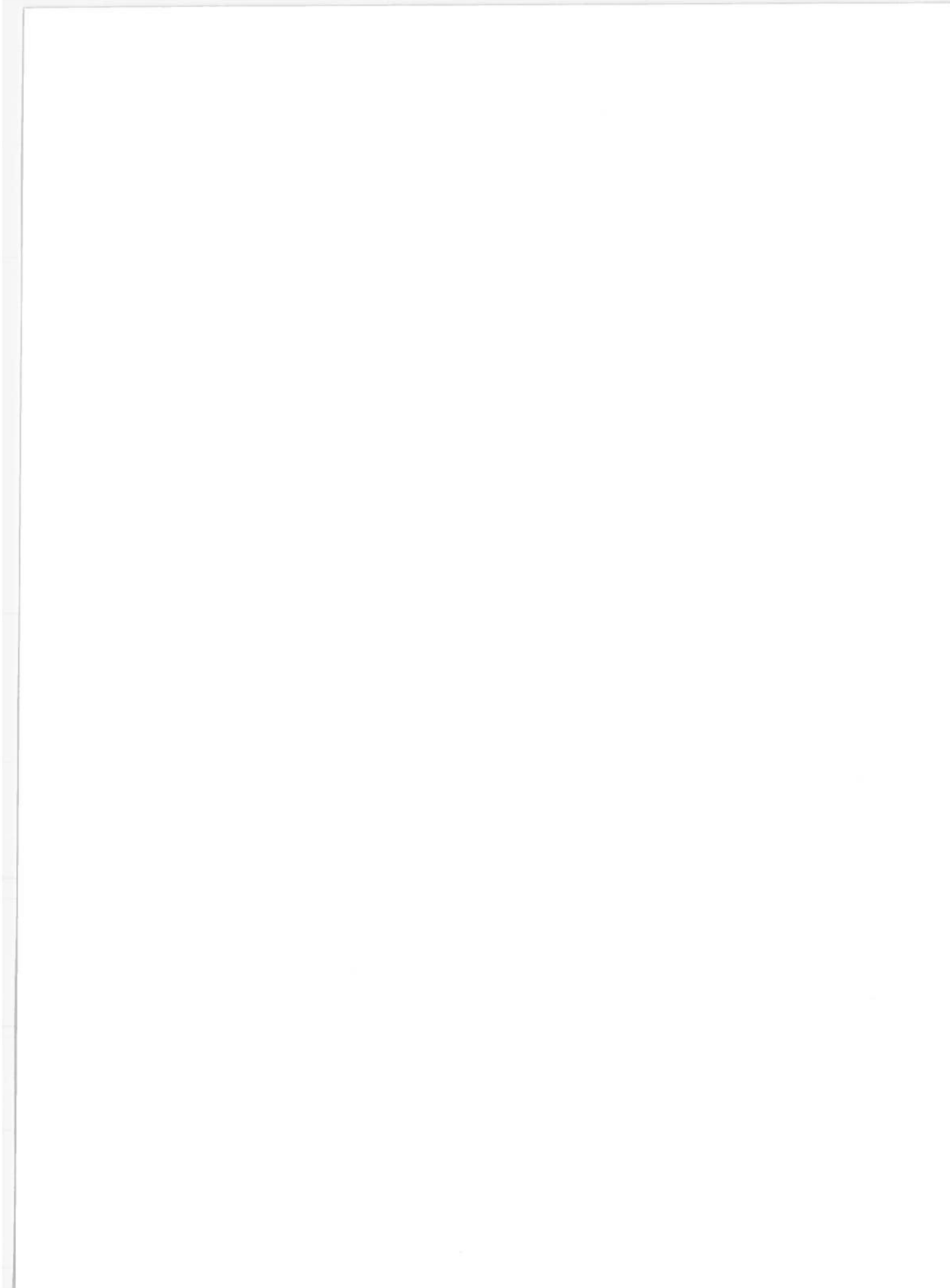


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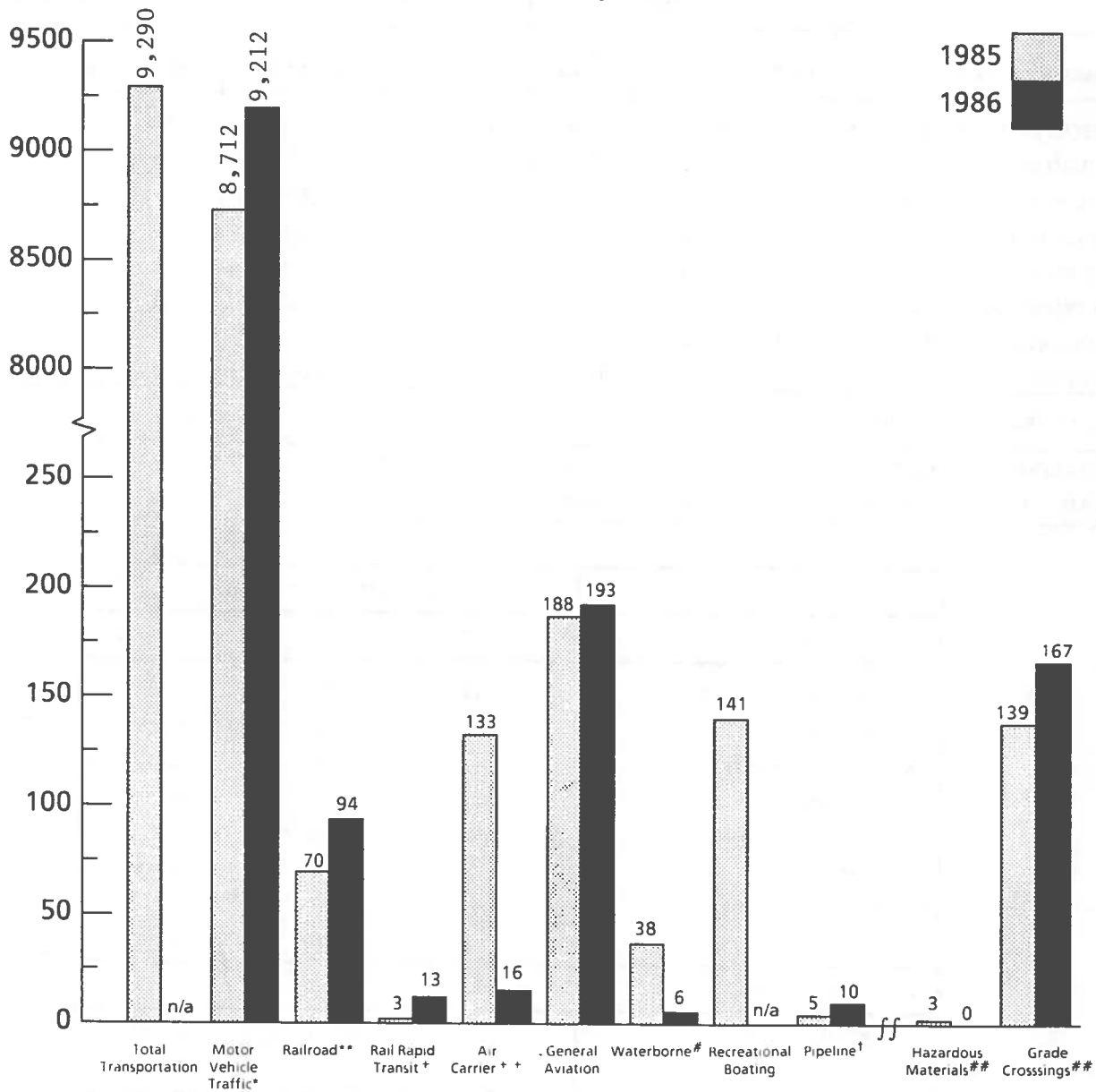
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SUMMARY STATISTICS OF TRANSPORTATION SAFETY

CHART 1.

TRANSPORTATION FATALITIES BY MODE FIRST THREE MONTHS, 1985 - 1986



Note: 1986 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, 1985 - 1986

CLASSIFICATION	JANUARY			FEBRUARY			MARCH		
	1985	1986	% CHANGE	1985	1986	% CHANGE	1985	1986	% CHANGE
MOTOR VEHICLE TRAFFIC*	2,911	3,143	+8.0%	2,590	2,739	+5.8%	3,211	3,330	+3.7%
RAILROAD**	21	35	+66.7%	15	25	+66.7%	34	34	0.0%
RAIL RAPID TRANSIT†	1	2	+100.0%	1	3	+200.0%	1	8	+700.0%
AIR CARRIER++	107	8	-92.5%	21	4	-81.0%	5	4	-20.0%
GENERAL AVIATION	56	72	+28.6%	72	47	-34.7%	60	74	+23.3%
WATERBORNE#	12	4	-66.7%	12	2	-83.3%	14	0	-100.0%
RECREATIONAL BOATING	32	n/a	-	44	n/a	-	65	n/a	-
PIPELINES†	2	0	-100.0%	3	9	+200.0%	0	1	[1]
TOTAL TRANSPORTATION	3,142	n/a	-	2,758	n/a	-	3,390	n/a	-
HAZARDOUS MATERIALS##	2	0	-100.0%	0	0	0.0%	1	0	-100.0%
GRADE CROSSING ONLY##	59	54	-8.5%	36	53	+47.2%	44	60	+36.4%

CLASSIFICATION	FIRST QUARTER TOTAL		
	1985	1986	% CHANGE
MOTOR VEHICLE TRAFFIC*	8,712	9,212	+5.7%
RAILROAD**	70	94	+34.3%
RAIL RAPID TRANSIT+	3	13	+333.3%
AIR CARRIER++	133	16	-88.0%
GENERAL AVIATION	188	193	+2.7%
WATERBORNE#	38	6	-84.2%
RECREATIONAL BOATING	141	n/a	-
PIPELINES†	5	10	+100.0%
TOTAL TRANSPORTATION	9,290	n/a	-
HAZARDOUS MATERIALS##	3	0	-100.0%
GRADE CROSSING ONLY##	139	167	+20.1%

NOTE: 1986 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. Exercise caution when comparing 1985 and 1986 data because two large transit companies did not submit reports in 1985.
 ++ 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

- Motor Vehicle Traffic fatalities for the first quarter of 1986 were 5.7 percent above the same quarter of 1985 and 1.1 percent higher than the first quarter of 1977.
- Preliminary estimates of travel show an increase of 4.9 percent in the first quarter of 1986 over the first quarter of 1985.

TABLE 2.

HIGHWAY FATALITIES FOR 1986 COMPARED WITH 1985 AND 1977

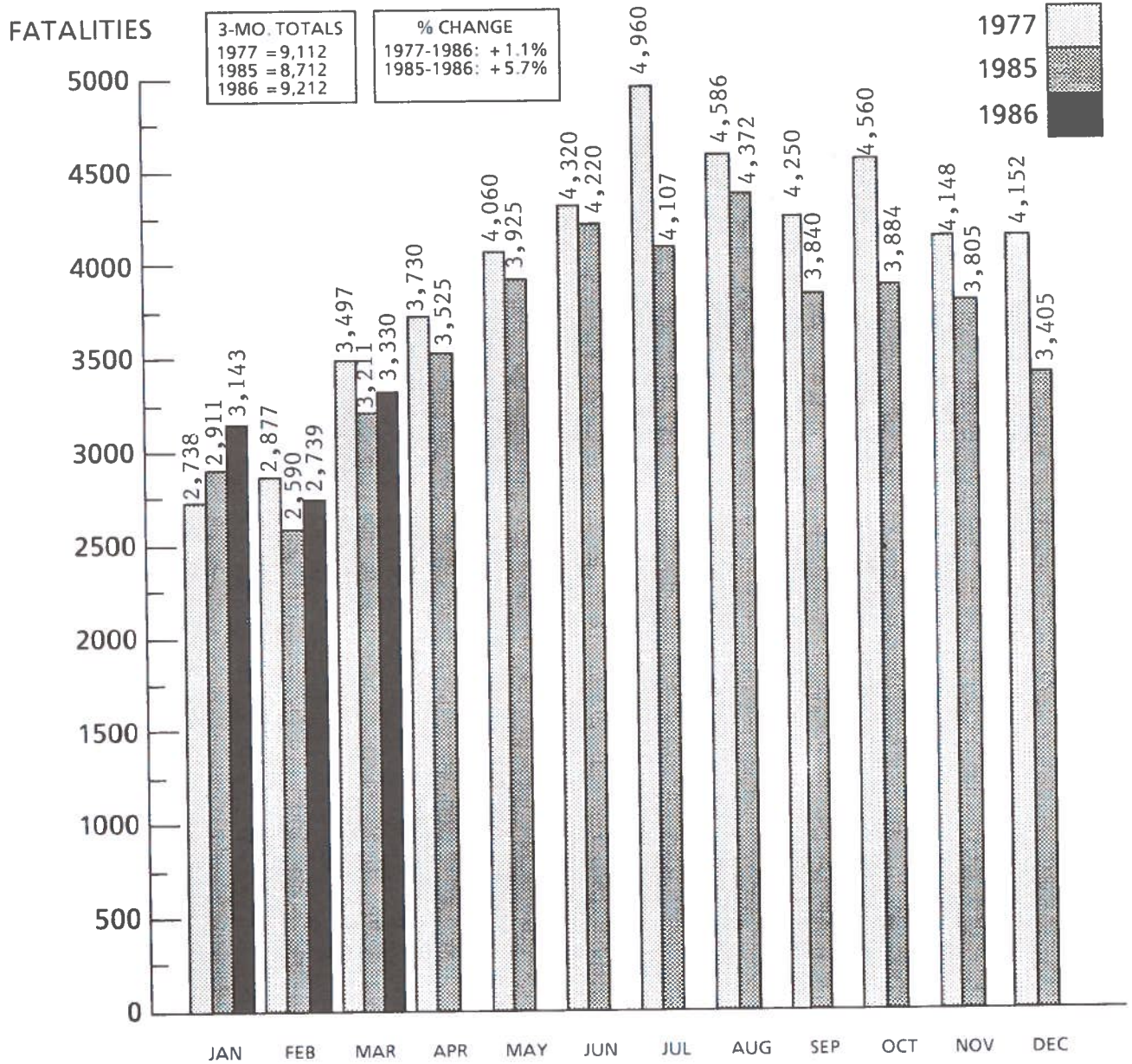
	1977	1985	1986	% Change 1977-1986	% Change 1985-1986
January	2,738	2,911	3,143	+ 14.8	+ 8.0
February	2,877	2,590	2,739	-4.8	+ 5.8
March	3,497	3,211	3,330	-4.8	+ 3.7
Total First Quarter	9,112	8,712	9,212	+ 1.1	+ 5.7

NOTE: Figures are based on 30-day fatality definition (see Glossary).
1986 data are preliminary.

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

CHART 2.

MOTOR VEHICLE TRAFFIC FATALITIES BY MONTH 1977, 1985 AND 1986

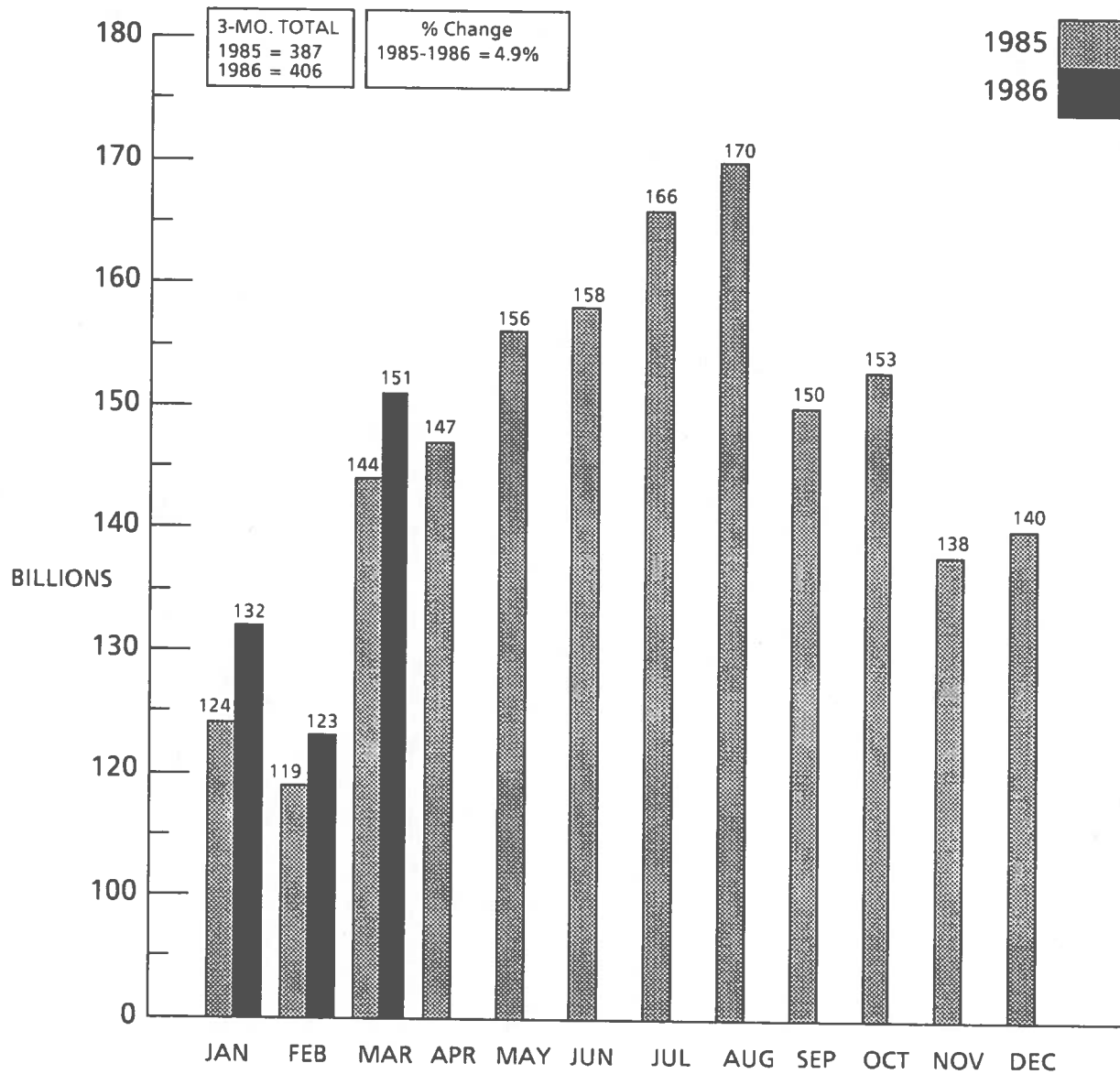


NOTE: Figures are based on 30-day fatality definition (see Glossary)
 1986 data are preliminary.

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

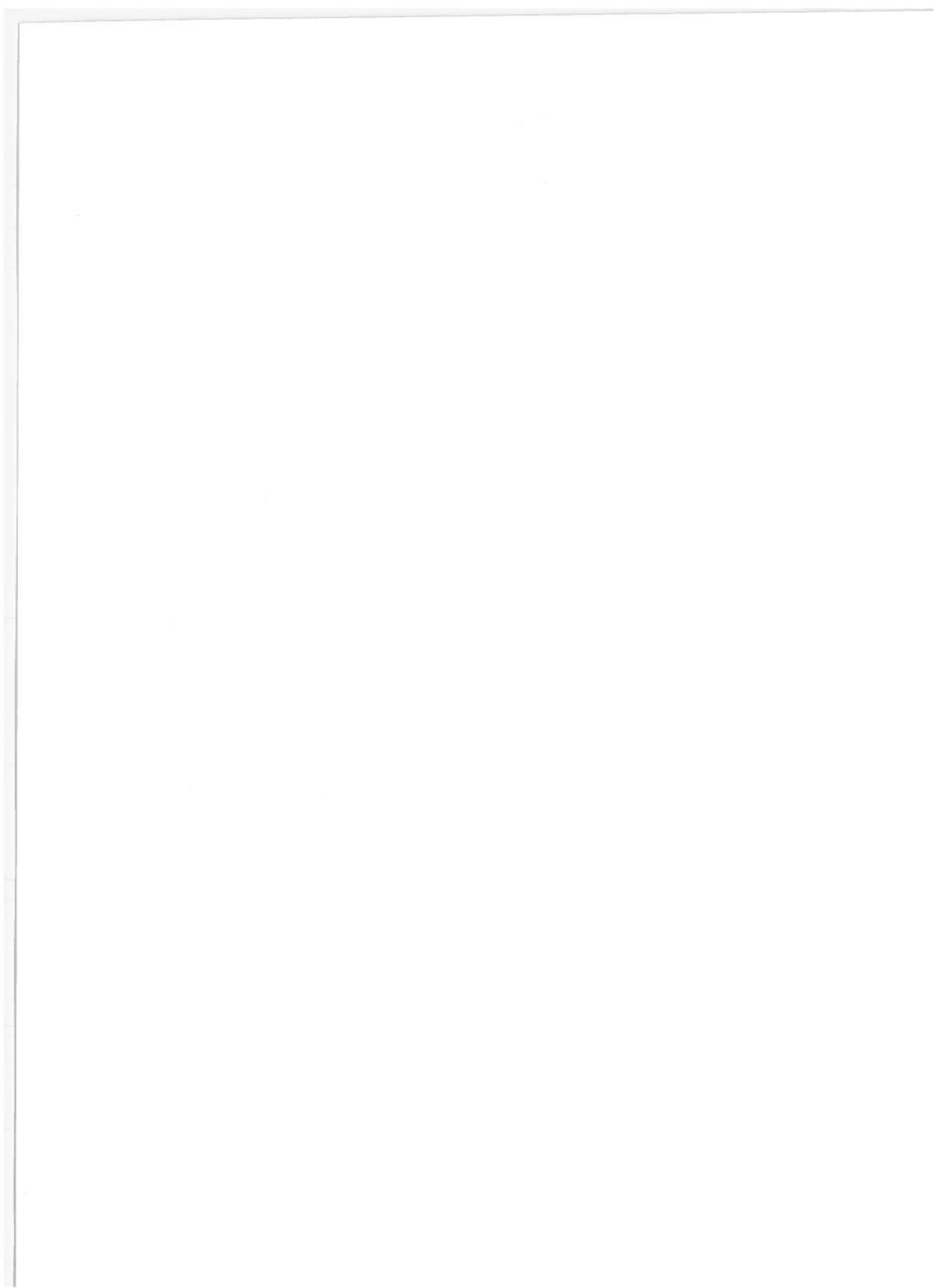
CHART 3.

MOTOR VEHICLE MILES OF TRAVEL, 1985 - 1986^P



^P = Preliminary.

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

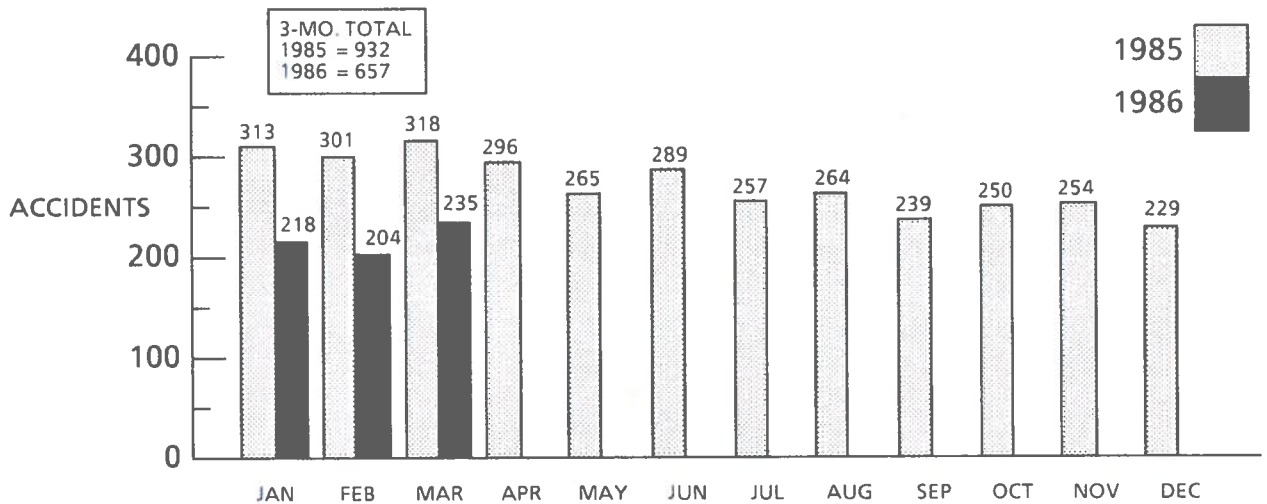
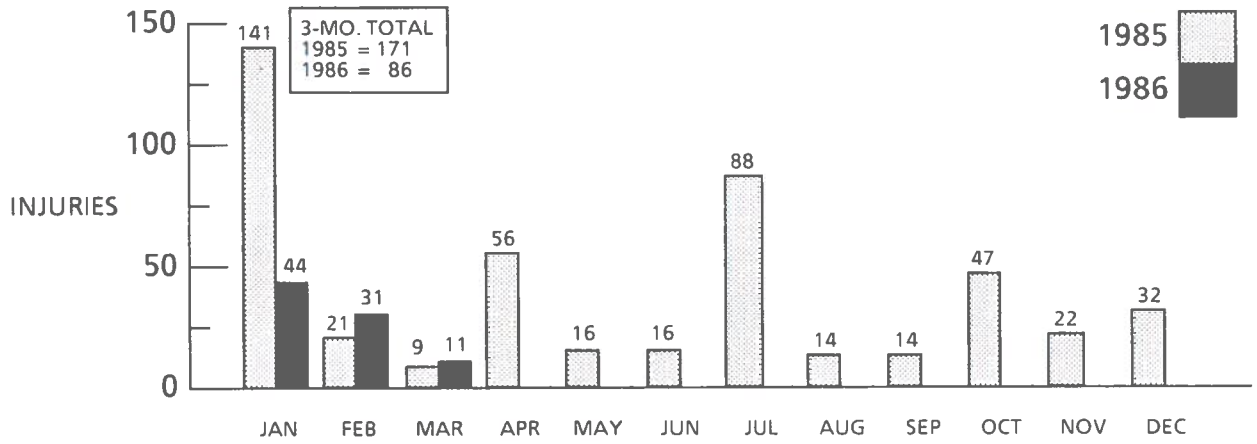
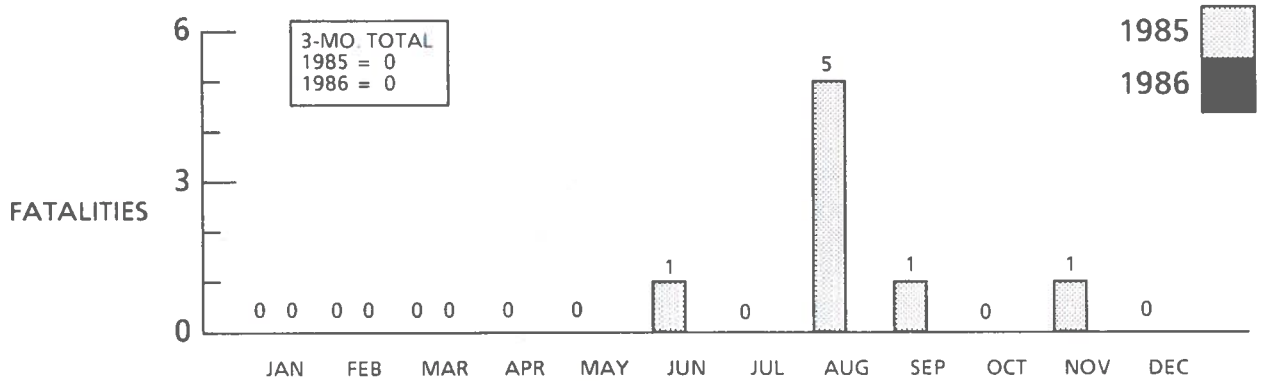


RAILROAD

- During the first quarter of 1986, train accidents and injuries decreased when compared with the first quarter of 1985. There were 657 train accidents reported in 1986 and 932 in 1985. Injuries declined from 171 in 1985 to 86 in 1986. No fatalities were reported in the first three months of 1985 and 1986.
- Rail-Highway Grade Crossing incidents and injuries experienced a decline during the first quarter of 1986 when compared with 1985. Incidents fell from 2,031 in 1985 to 1,704 in 1986 and injuries dropped from 764 to 611. During the same period, the number of fatalities increased from 139 in 1985 to 167 in 1986.

CHART 4.

TRAIN ACCIDENT* FATALITIES, INJURIES AND ACCIDENTS, 1985-1986

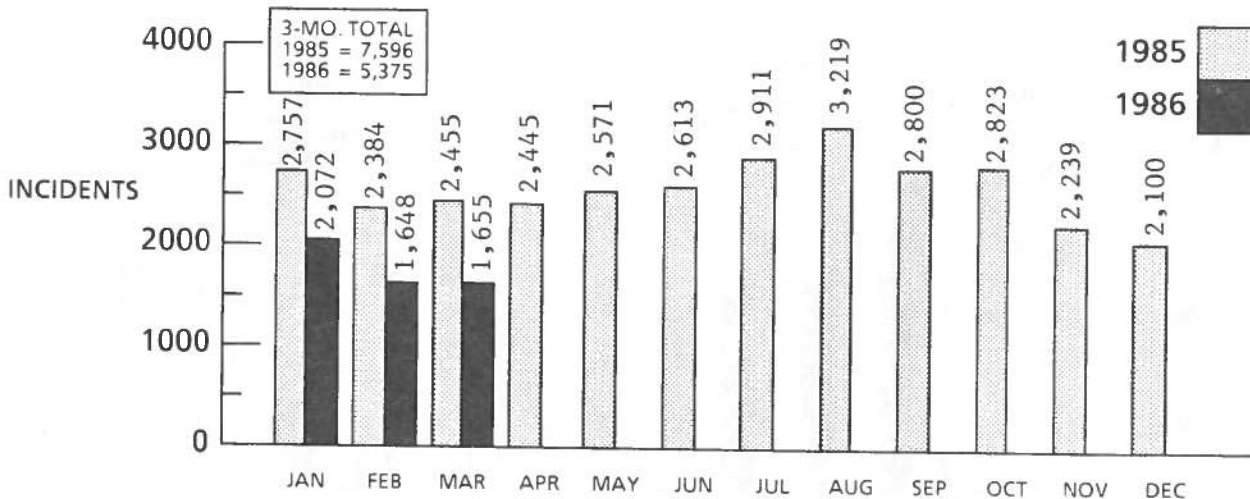
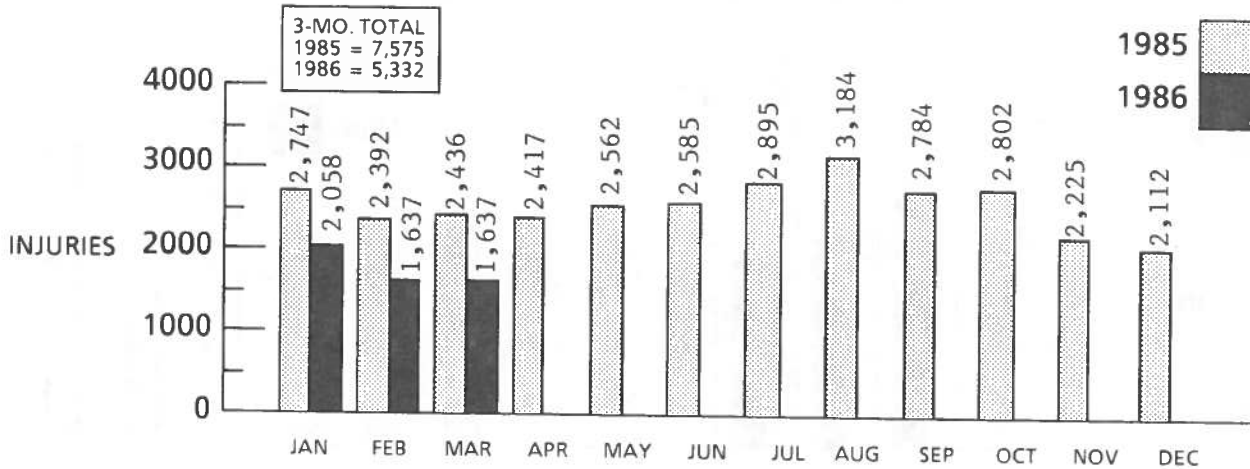
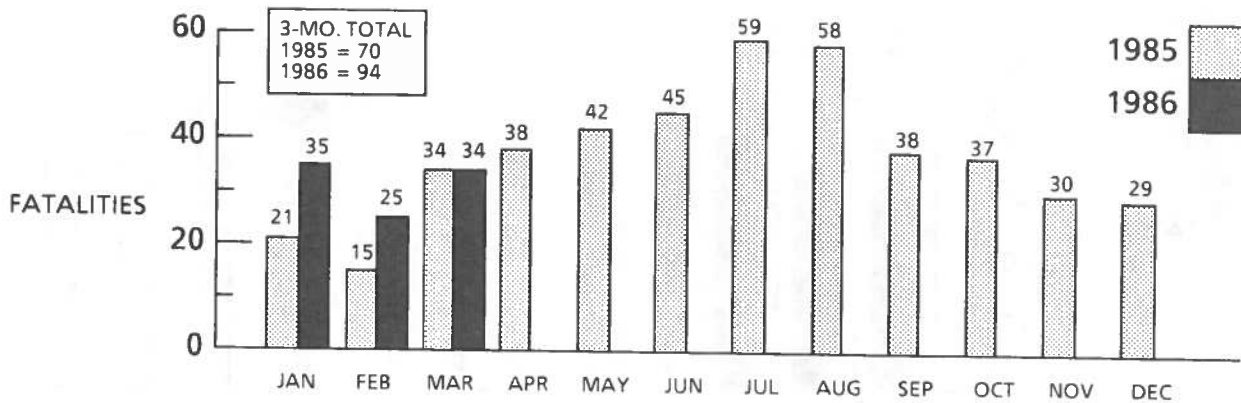


* See Glossary for Train Accident definition. This chart does not include Grade Crossings.
 NOTE: 1986 data are preliminary.

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

CHART 5.

TRAIN AND NONTRAIN FATALITIES, INJURIES AND INCIDENTS*, 1985-1986

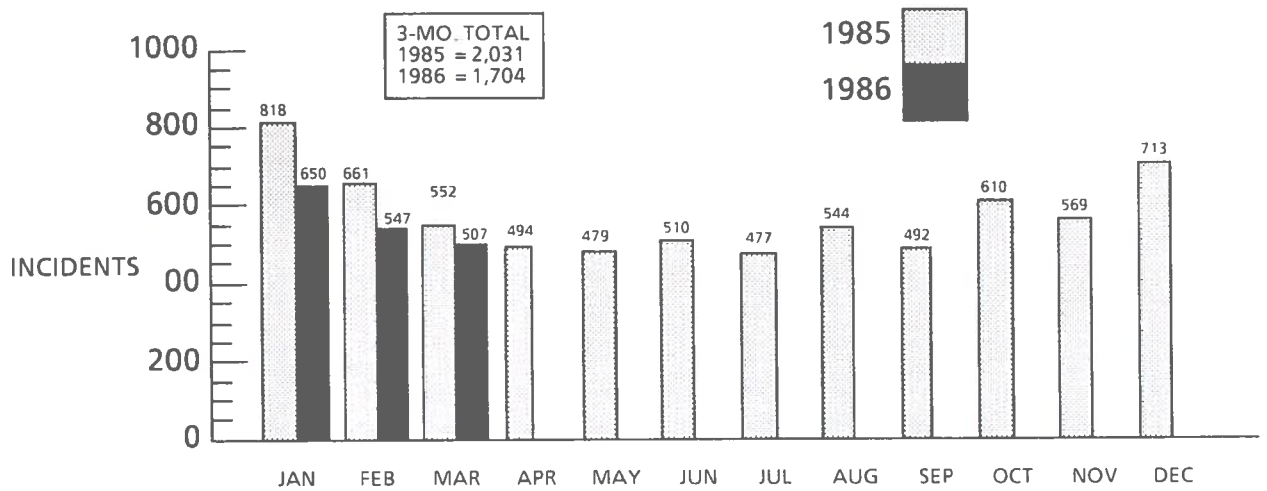
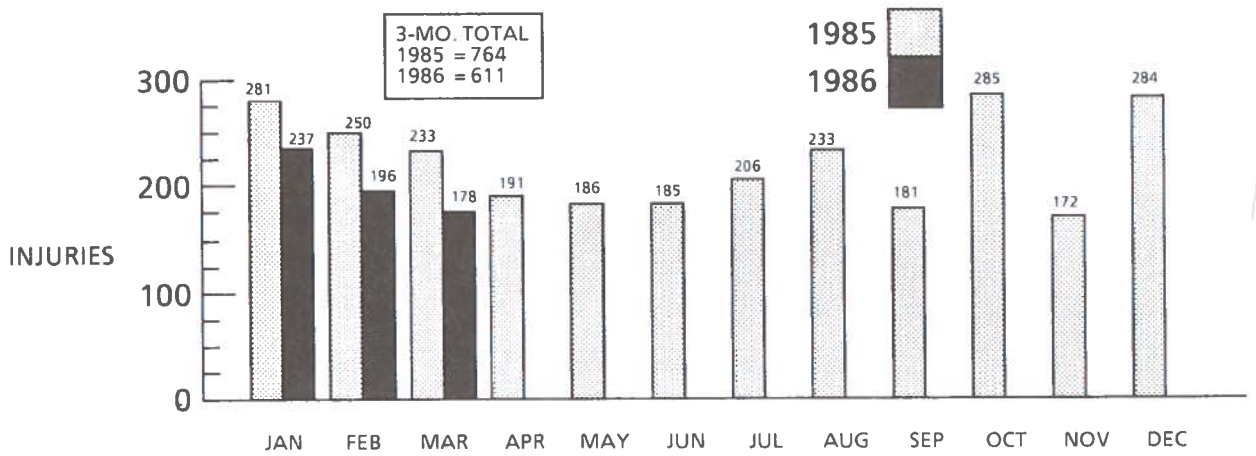
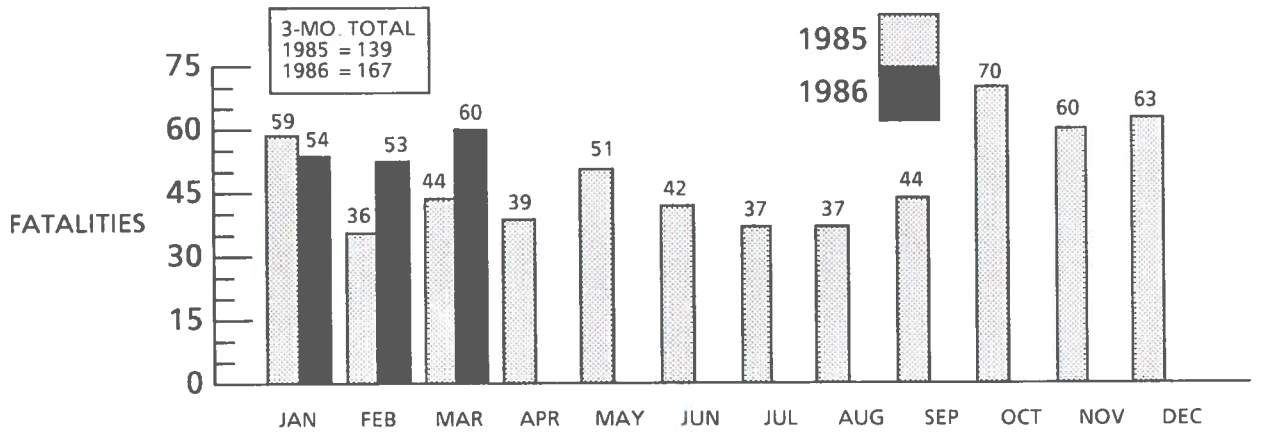


* See Glossary for Train and Nontrain Incident definitions. This chart does not include Grade Crossings.
NOTE: 1986 data are preliminary.

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

CHART 6.

GRADE CROSSING* FATALITIES, INJURIES AND INCIDENTS, 1985-1986



* See Glossary for definition.
 NOTE: 1986 data are preliminary.

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

RAIL RAPID TRANSIT

Users of Rail Rapid Transit (RRT) statistics should exercise caution when comparing accident, fatality, and injury data for the first quarters of 1985 and 1986. In 1985, two of the larger transit authorities did not submit reports. As of August 1, 1986, of the 13 transit authorities, ten have reported for January, 11 for February and 11 for March. UMTA has, in conjunction with APTA, revised the reporting system categories and instituted new thresholds. Fires are now reported in a separate fire report and are not included in train accidents. This new reporting system was implemented for Rapid Rail Transit on January 1, 1986. Due to these changes, it is difficult to make comparisons between earlier data and current data.

The following comparisons are made using data which have been received as of August 1, 1986.

- There were three Rapid Rail Transit revenue train accidents reported in the first quarter of 1986, while no Rapid Rail Transit revenue train accidents were reported in the first quarter of 1985.

The following table summarizes train accidents by type for the first quarter of 1985 and 1986.

	1985 FIRST QUARTER	1986* FIRST QUARTER
Collision with Other Train	0	0*
Collision with Obstacle	0	1*
Collision with Person	0	0*
Derailement	0	1*
Fire	0	N/A
Rail-Highway Crossing	0	1*
Total	0	3*

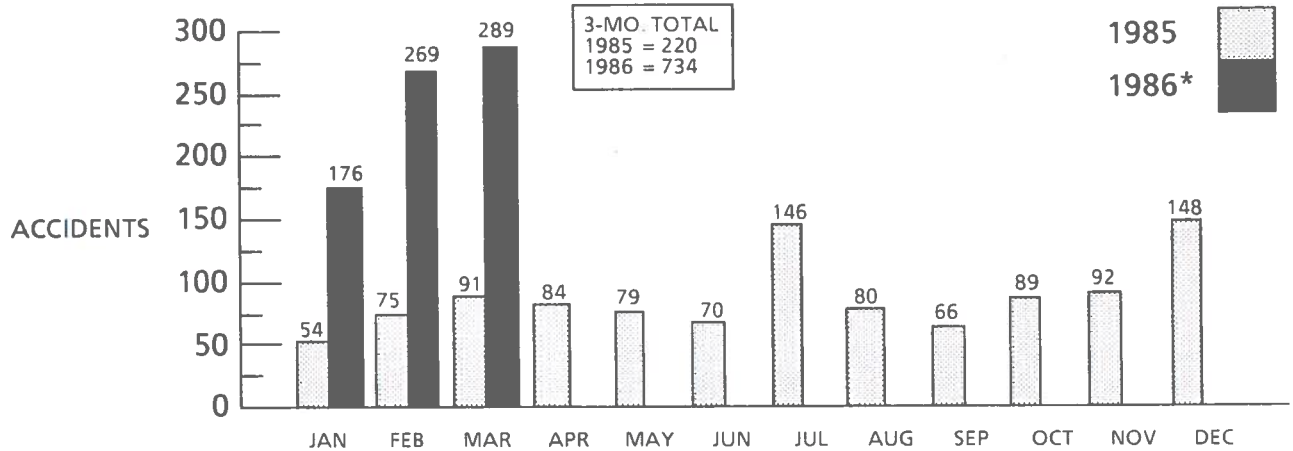
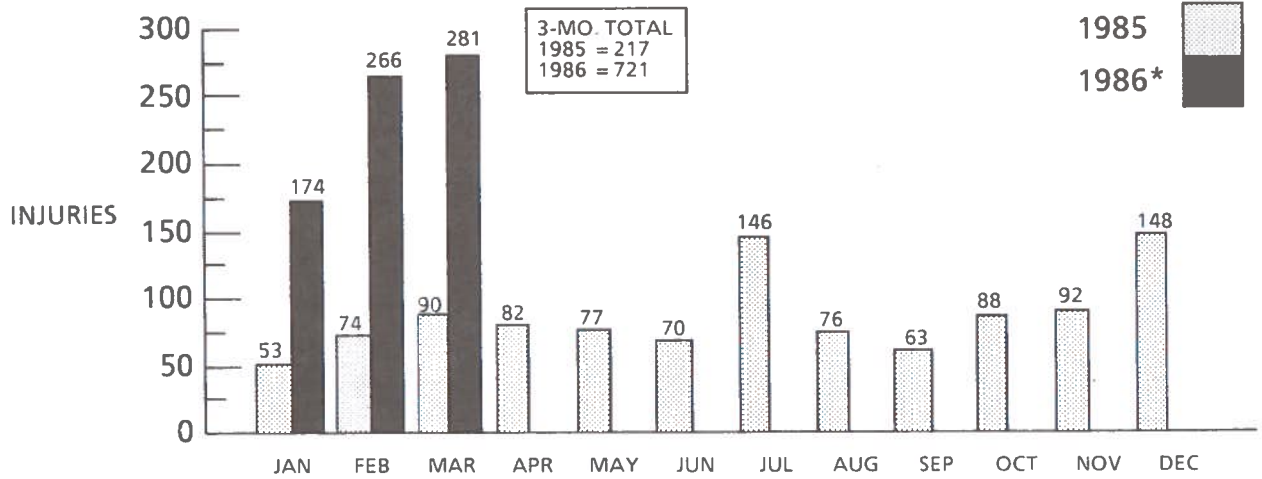
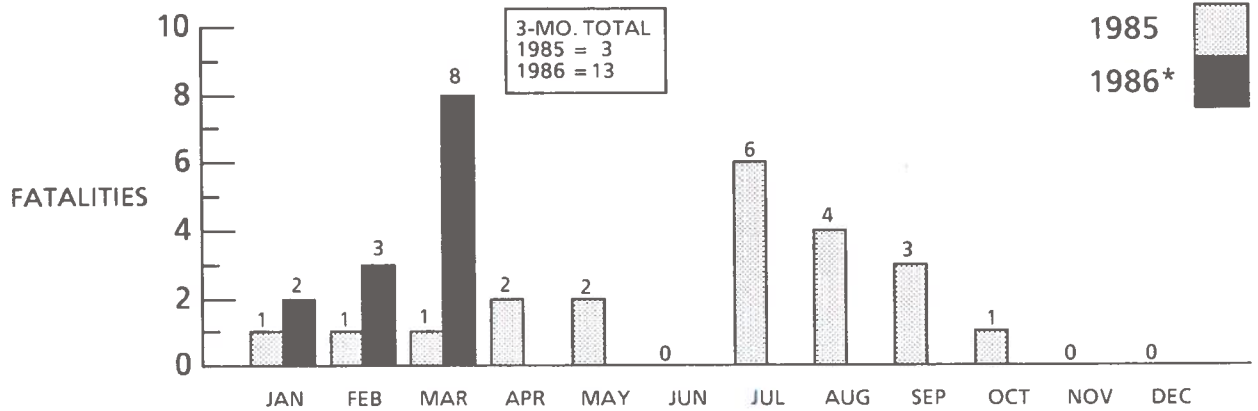
- The predominant cause of RRT train and nontrain personal casualties (injuries and fatalities) in the first quarter of 1986 was from accidents occurring on station platforms. Of the 734 casualties reported in this quarter, 234 took place on the station platform; while in the first quarter of 1985, 144 of the 220 casualties (injuries and fatalities) reported were the result of slips and falls.

* Preliminary data prior to verification.

Source: TSC, Transit Safety and Security Division, DTS-43, SIRAS.

CHART 7.

RRT TRAIN AND NON-TRAIN** FATALITIES, INJURIES AND ACCIDENTS, 1985-1986

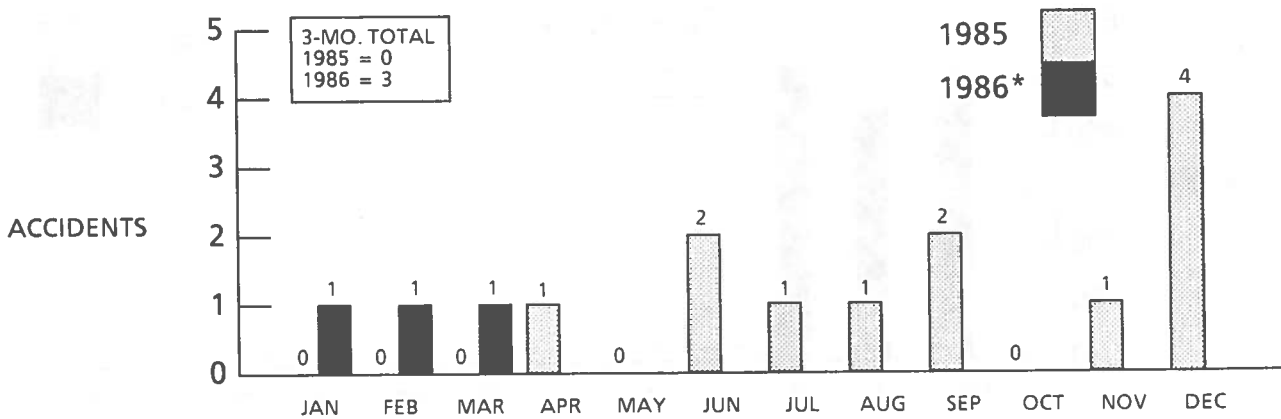
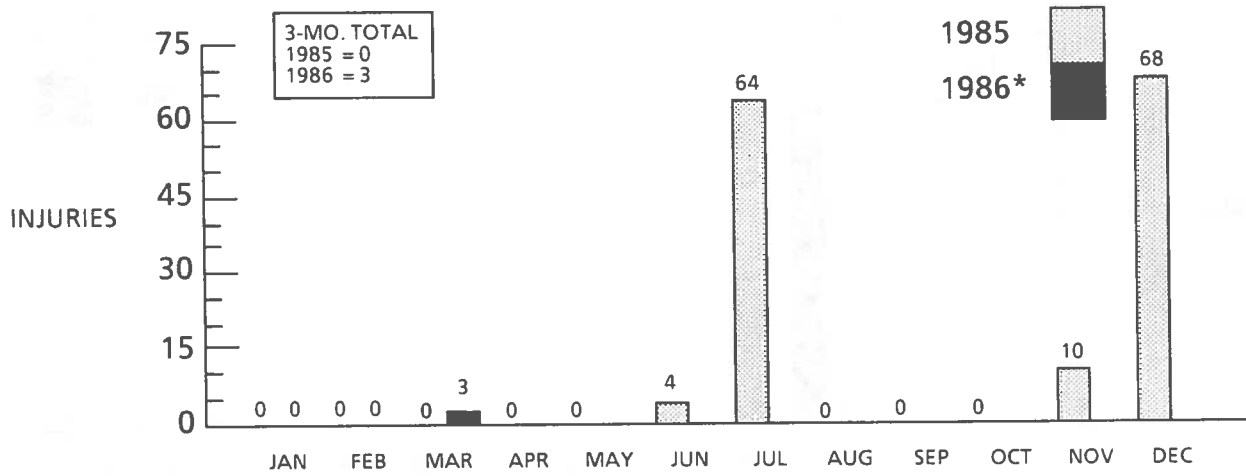
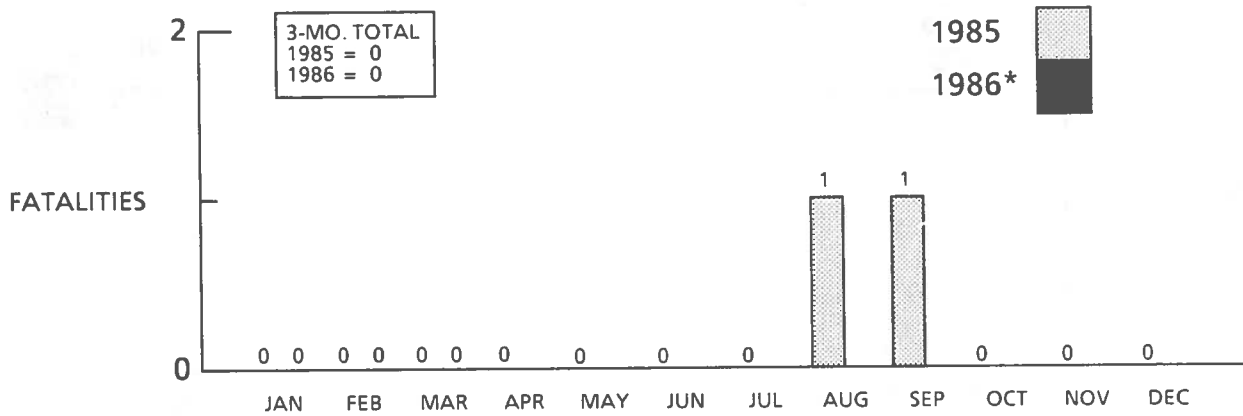


* Preliminary data prior to verification.
** See glossary for definition.

SOURCE: TSC, Transit Safety and Security Division, DTS-43, SIRAS.

CHART 8.

RRT TRAIN** FATALITIES, INJURIES AND ACCIDENTS, 1985-1986

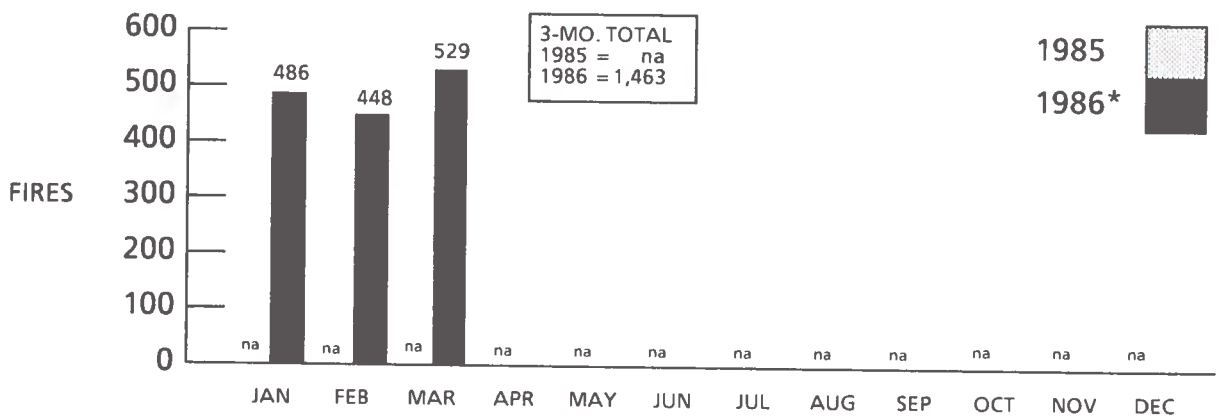
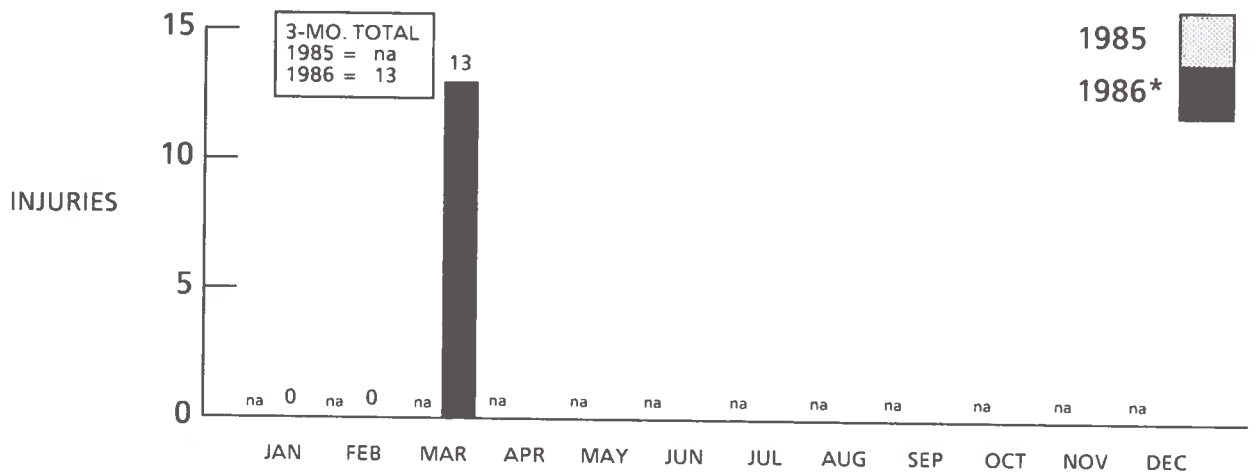
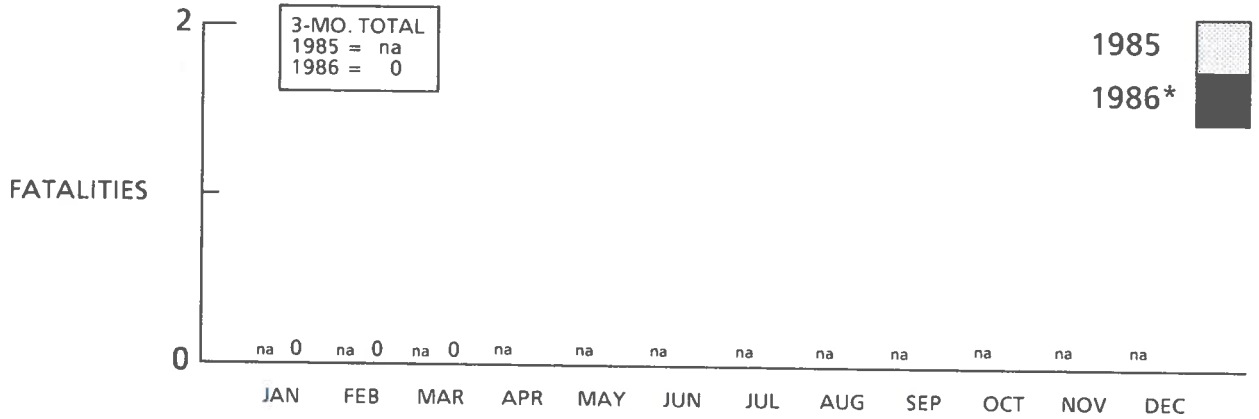


* Preliminary data prior to verification.
** See glossary for definition.

SOURCE: TSC, Transit Safety and Security Division, DTS-43, SIRAS.

CHART 9.

RRT FIRE REPORTS** FATALITIES AND INJURIES, 1985-1986



na Not available.
* Preliminary data prior to verification.
** See glossary for definition.

SOURCE: TSC, Transit Safety and Security Division, DTS-43, SIRAS.

AVIATION

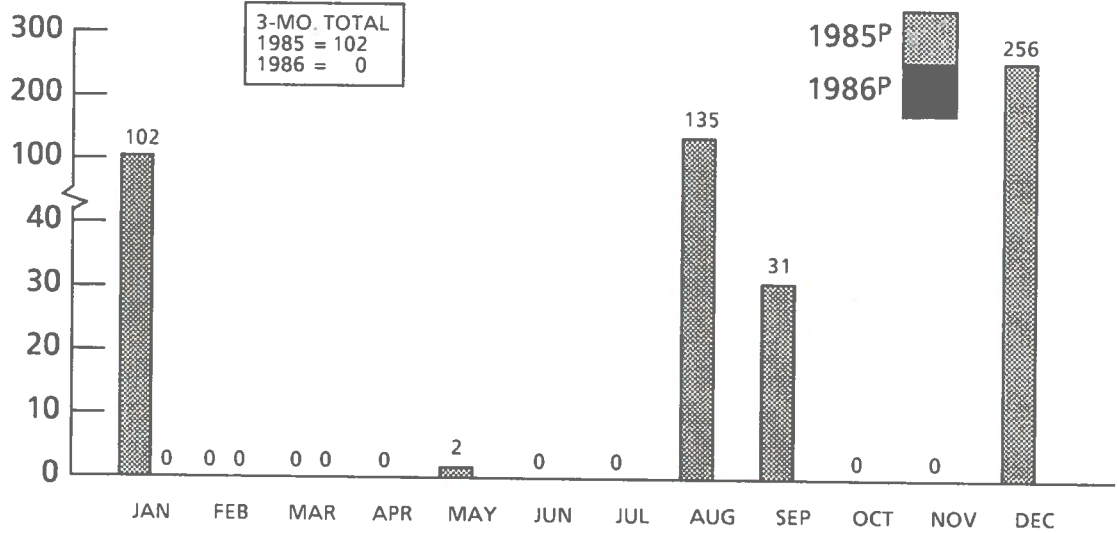
Beginning in January 1982, the National Transportation Safety Board began reporting aviation accident data according to the Federal Aviation Regulations under which the aircraft was operated at the time of an accident. Revenue operations of Air Carriers, Commercial Operators and deregulated All Cargo 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

- In the first quarter of 1986, no U.S. air carrier fatal accidents or fatalities have occurred, while three fatal accidents and 102 fatalities were reported in the same period of 1985. During 1985, one accident resulted in a single fatality with the remaining fatalities attributed to fatal accidents in La Paz, Bolivia, and Reno, Nevada. The total number of accidents remained constant in the first three months of 1985 and 1986 with seven being reported for each period, while serious injuries increased from three in 1985 to seven in 1986.
- Commuter carriers recorded one fatal accident and three fatalities in the first three months of 1986, compared with two fatal accidents and 11 fatalities in the same period of 1985. The total number of accidents increased from four in the first quarter of 1985 to nine in 1986, while serious injuries rose from zero in 1985 to five in 1986.
- A comparison of fatality, accident and injury data for on-demand air taxis showed a decrease in all areas for the first three months of 1986 compared with the same period of 1985.

CHART 10.

U.S. AIR CARRIER* FATALITIES, 1985 - 1986



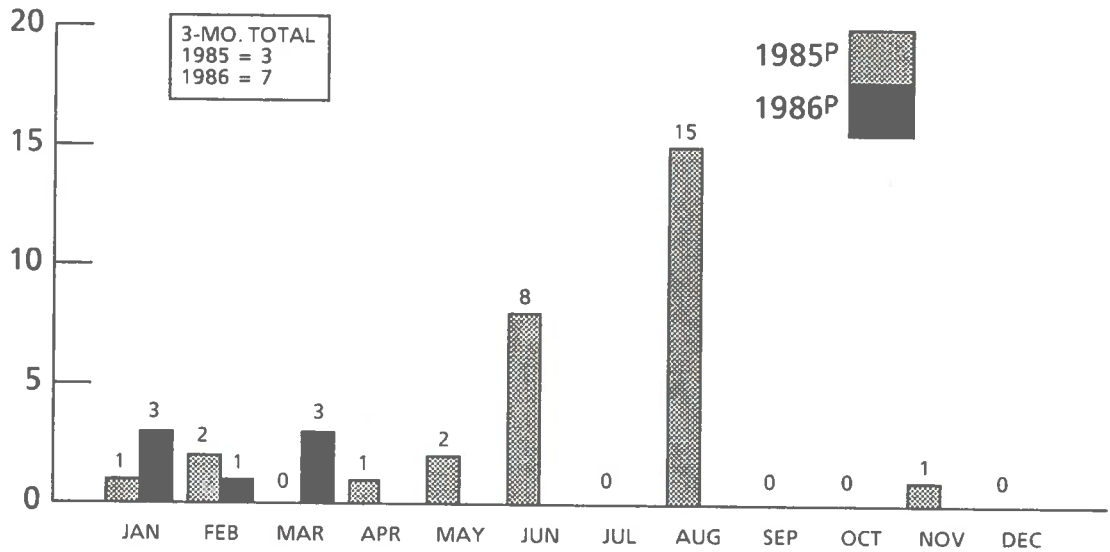
P = Preliminary.

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

SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

CHART 11.

U.S. AIR CARRIER* SERIOUS INJURIES, 1985 - 1986



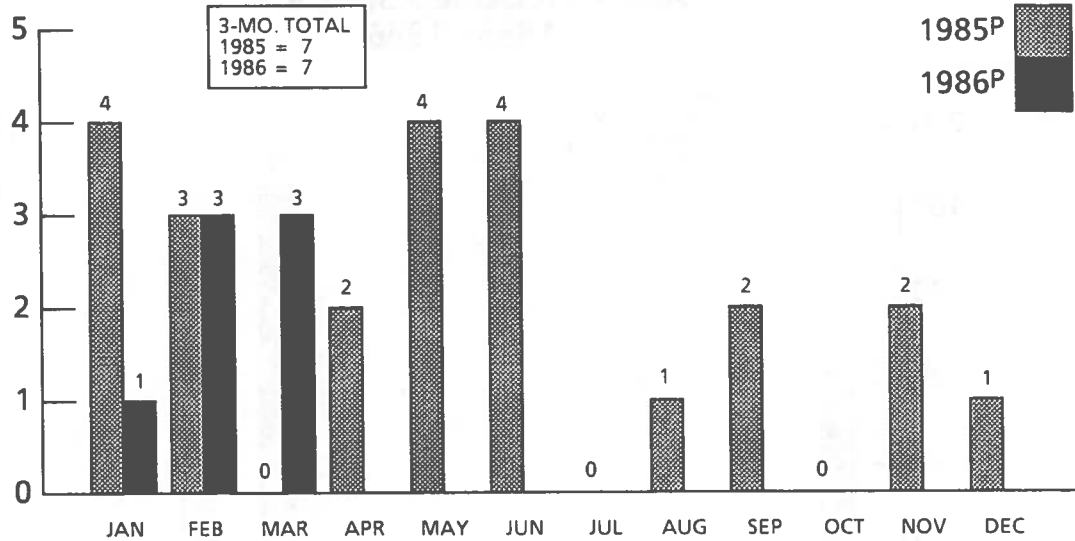
P = Preliminary.

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

SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

CHART 12.

U.S. AIR CARRIER ACCIDENTS*, 1985 - 1986



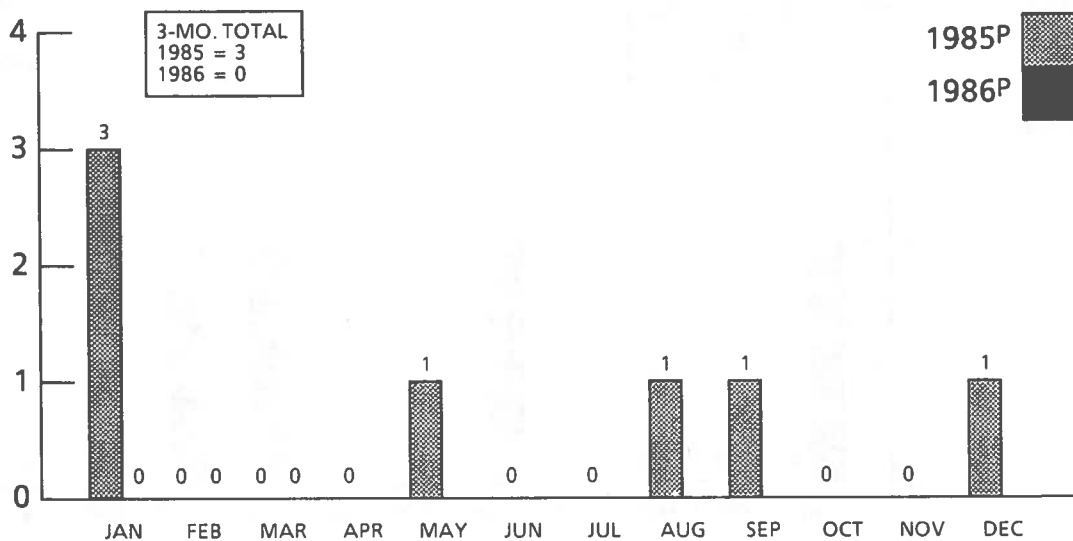
P = Preliminary.

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

SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

CHART 13.

U.S. AIR CARRIER* FATAL ACCIDENTS, 1985 - 1986



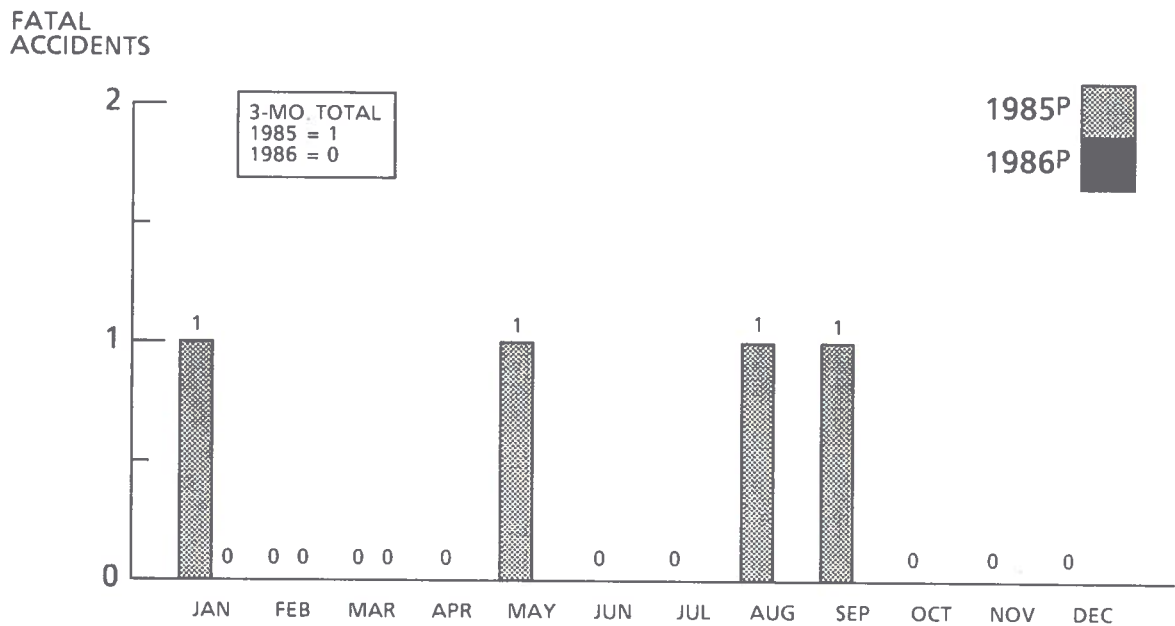
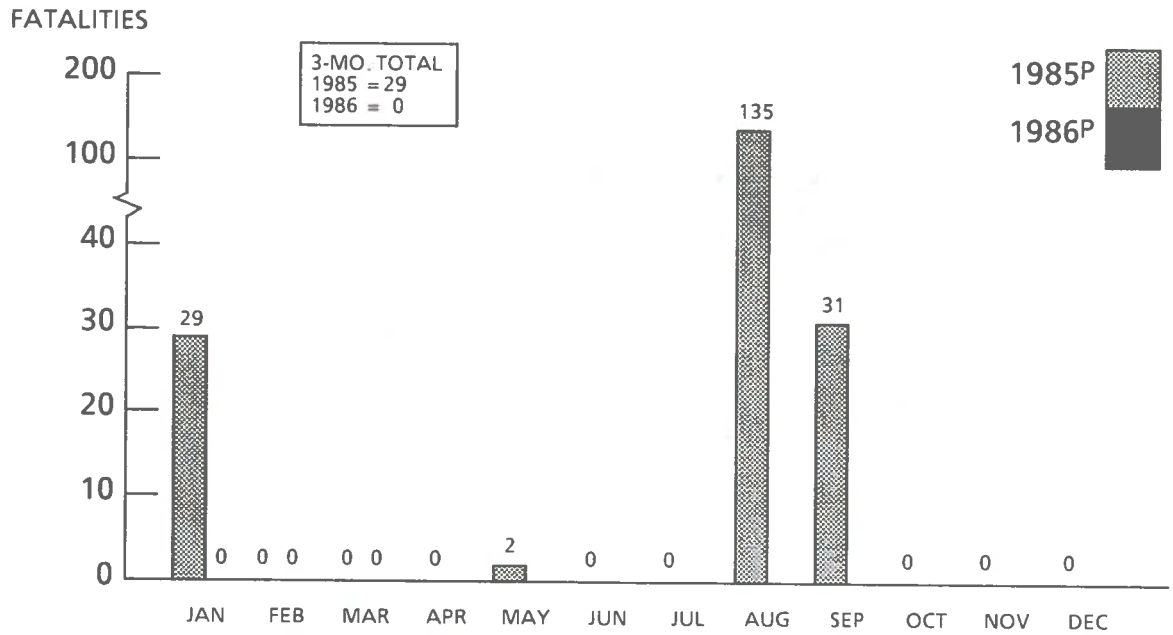
P = Preliminary.

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

SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

CHART 14.

U.S. AIR CARRIER FATALITIES AND FATAL ACCIDENTS ALL SCHEDULED SERVICE* 1985 - 1986



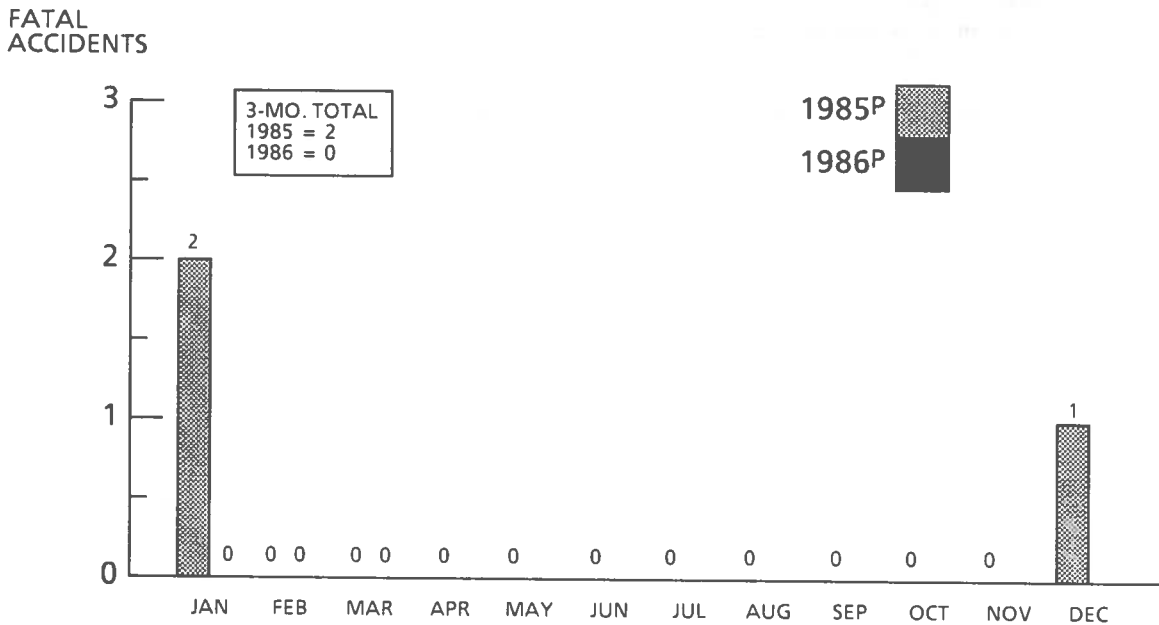
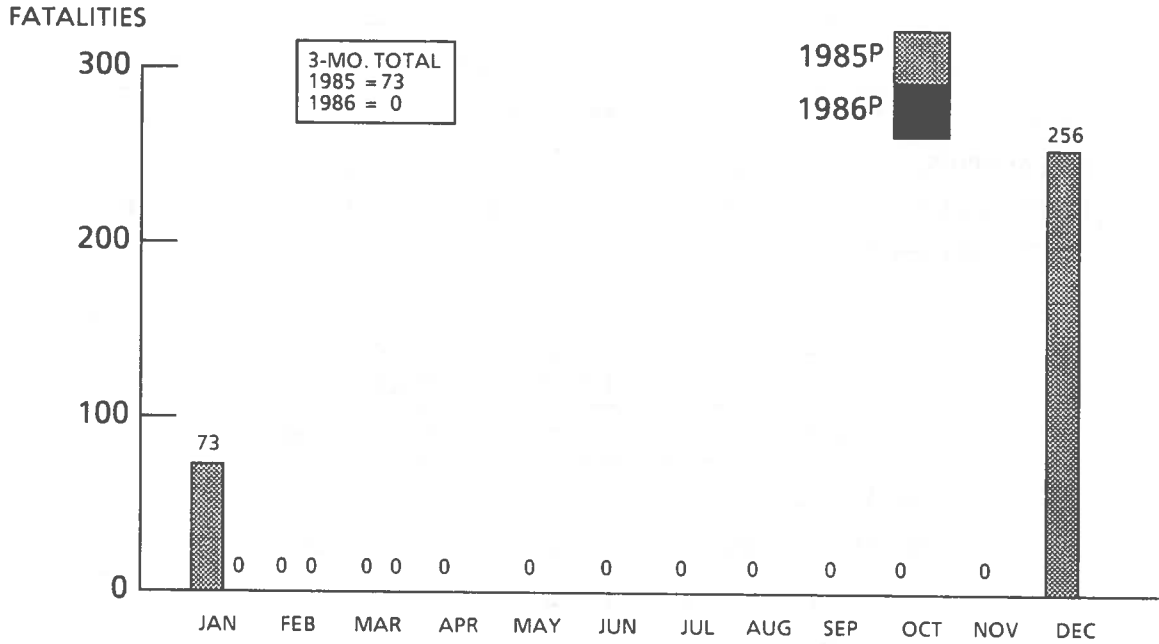
Note: 1985 and 1986 data are preliminary.

* All scheduled service operating under 14 CFR 121, 125, and 127.

SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

CHART 15.

U.S. AIR CARRIER FATALITIES AND FATAL ACCIDENTS ALL NONSCHEDULED SERVICE* 1985 - 1986



Note: 1985 and 1986 data are preliminary.

* All nonscheduled service (charter) operating under 14 CFR 121, 125, and 127.

SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

TABLE 3.
COMMUTER CARRIERS* ACCIDENTS, FATALITIES AND INJURIES
1985-1986

CLASSIFICATION	JANUARY		FEBRUARY		MARCH	
	1985	1986	1985	1986	1985	1986
FATALITIES	0	0	11	0	0	3
FATAL ACCIDENTS	0	0	2	0	0	1
TOTAL ACCIDENTS	0	1	2	4	2	4
SERIOUS INJURIES	0	0	0	1	0	4

CLASSIFICATION	FIRST QUARTER TOTAL		
	1985	1986	% Chg
FATALITIES	11	3	-72.7
FATAL ACCIDENTS	2	1	-50.0
TOTAL ACCIDENTS	4	9	+125.0
SERIOUS INJURIES	0	5	[1]

NOTE: 1985 and 1986 data are preliminary.
 * All scheduled service operating under 14 CFR 135.
 [1] Not calculable.

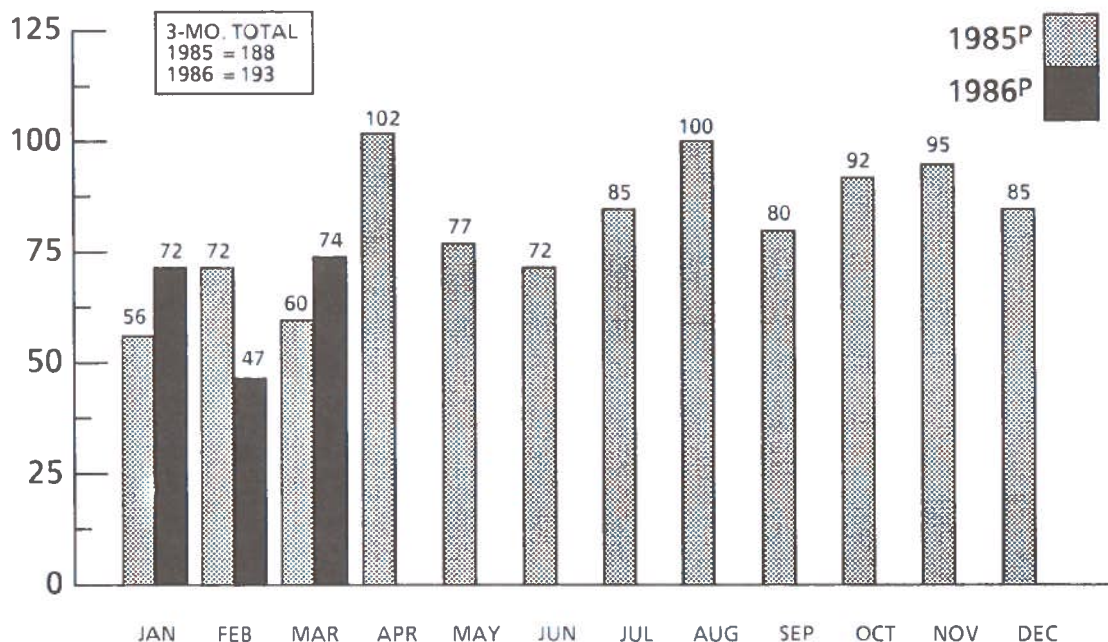
SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

GENERAL AVIATION

- In the first quarter of 1986, the number of General Aviation fatalities, fatal accidents, and serious injuries all experienced an increase when compared to the first quarter of 1985. Only total accidents decreased during this period.
- Fatalities increased in the first quarter -- from 188 in 1985 to 193 in 1986.
- The total number of General Aviation accidents decreased from 527 during the first quarter of 1985 to 504 during the same period of 1986; however, the number of fatal accidents increased from 96 to 101 during the corresponding periods.
- In the first three months of 1986, there were 110 serious injuries reported, compared to 77 in the first quarter of 1985.

CHART 16.

U.S. GENERAL AVIATION* FATALITIES, 1985 - 1986



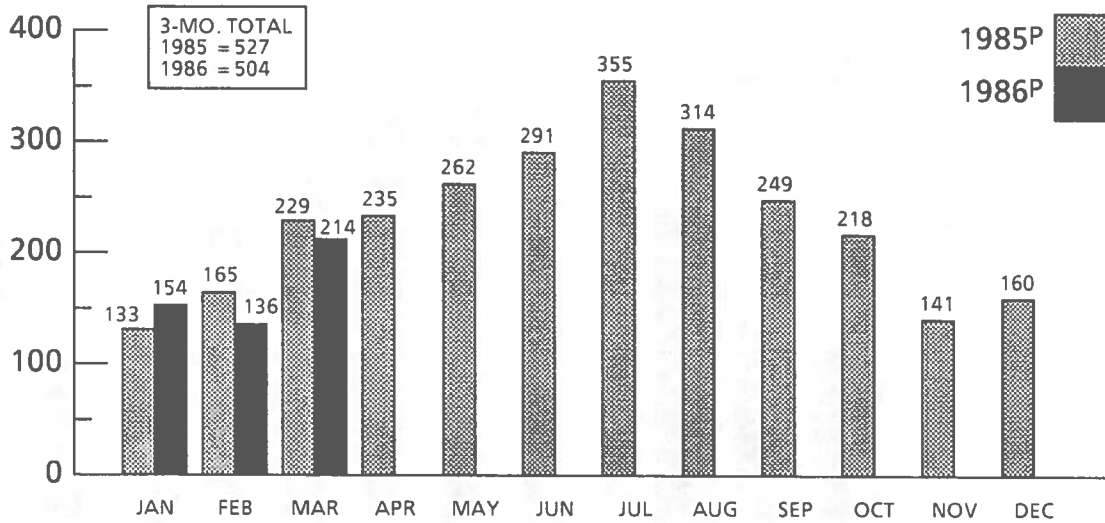
P = Preliminary.

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

SOURCE: NTSB, Safety Study & Analysis Division, SP-30.

CHART 17.

U.S. GENERAL AVIATION* ACCIDENTS, 1985 - 1986



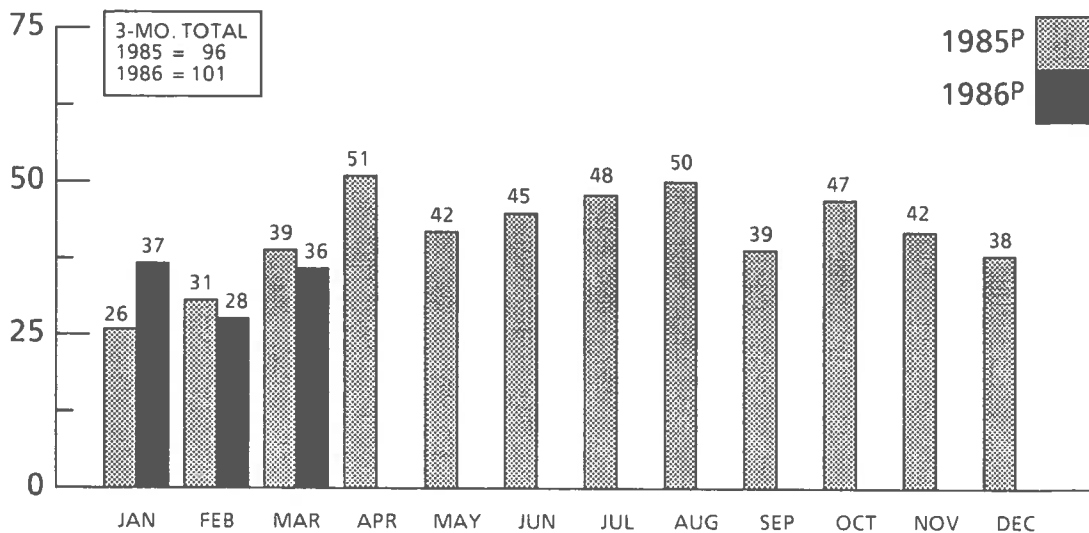
P = Preliminary.

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

SOURCE: NTSB, Safety Study & Analysis Division, SP-30.

CHART 18.

U.S. GENERAL AVIATION* FATAL ACCIDENTS, 1985 - 1986



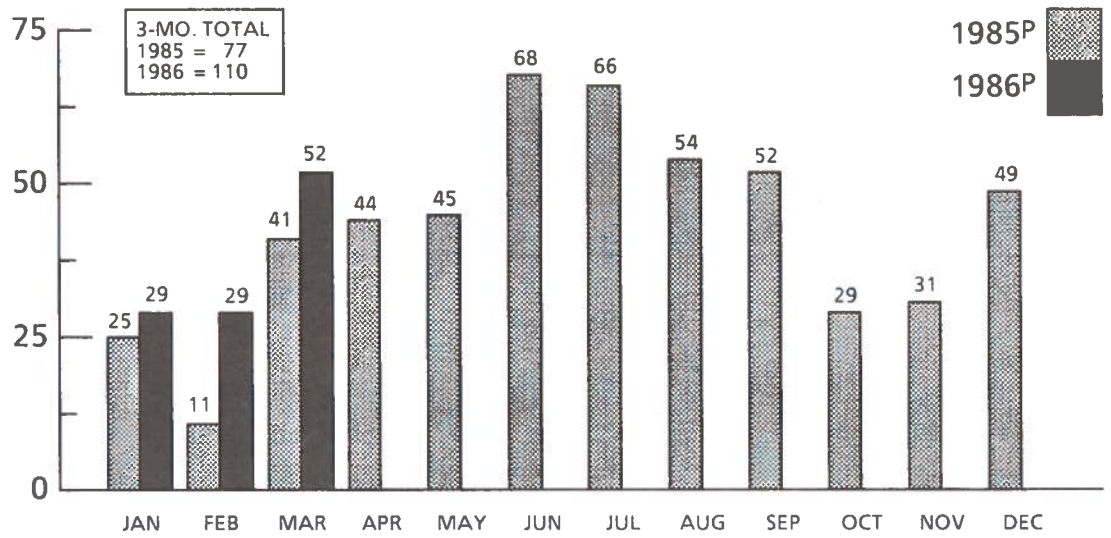
P = Preliminary.

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

SOURCE: NTSB, Safety Study & Analysis Division, SP-30.

CHART 19.

U.S. GENERAL AVIATION* SERIOUS INJURIES, 1985 - 1986



P = Preliminary.

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

SOURCE: NTSB, Safety Study & Analysis Division, SP-30.

TABLE 5.

GENERAL AVIATION FATALITIES BY TYPE OF FLYING, 1985 - 1986

CLASSIFICATION	JANUARY		FEBRUARY		MARCH	
	1985	1986	1985	1986	1985	1986
PERSONAL	39	51	40	31	39	46
BUSINESS	7	17	13	8	14	15
CORPORATE/EXECUTIVE	4	2	4	0	1	0
AERIAL APPLICATION	0	1	0	0	0	0
INSTRUCTIONAL	2	1	7	3	2	3
OTHER	4	0	8	5	4	10
TOTAL GENERAL AVIATION	56	72	72	47	60	74

CLASSIFICATION	FIRST QUARTER TOTAL		
	1985	1986	% Chg
PERSONAL	118	128	+8.5
BUSINESS	34	40	+17.6
CORPORATE/EXECUTIVE	9	2	-77.8
AERIAL APPLICATION	0	1	[1]
INSTRUCTIONAL	11	7	-36.4
OTHER	16	15	-6.3
TOTAL GENERAL AVIATION	188	193	+2.7

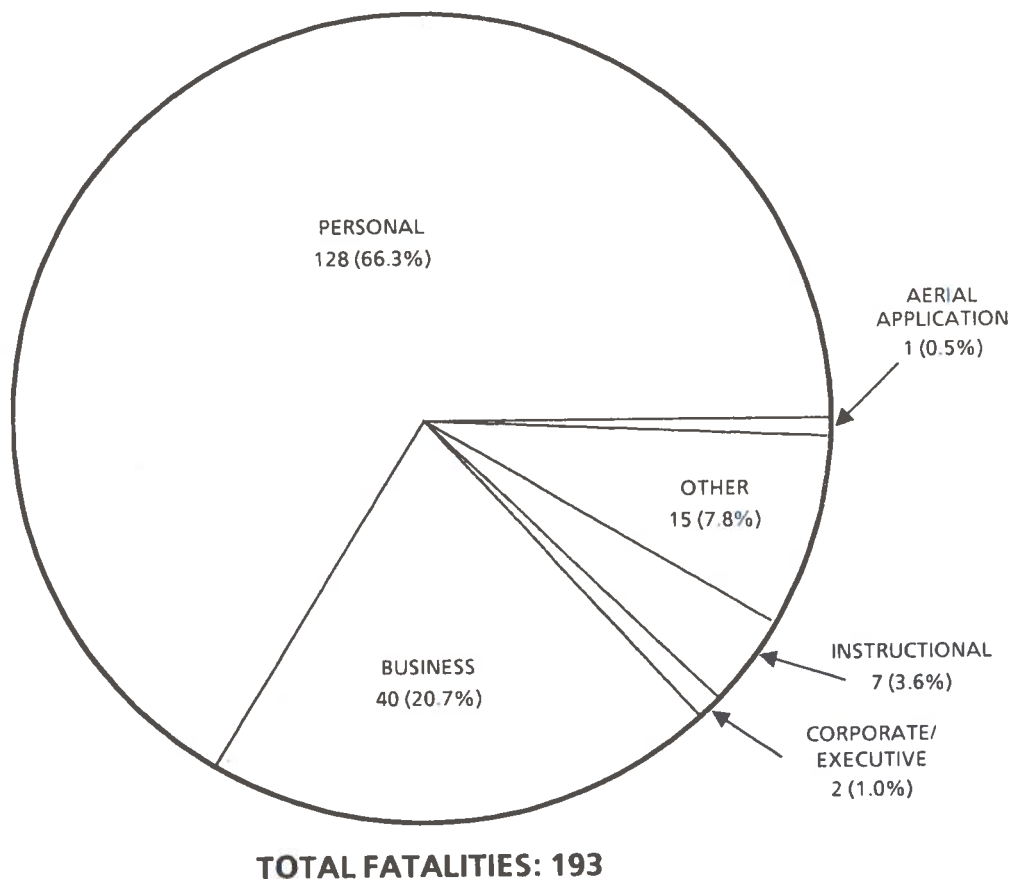
NOTE: 1985 and 1986 data are preliminary.

[1] Not calculable.

SOURCE: NTSB, Safety Studies & Analysis Division, SP-30.

CHART 20.

GENERAL AVIATION FATALITIES BY AIRCRAFT CLASSIFICATION, FIRST QUARTER, 1986



Note: 1986 data are preliminary

SOURCE: NTSB, Safety Study & Analysis Division, SP-30.

MARINE

WATERBORNE

Users of Waterborne statistics should exercise caution when comparing accident, fatality and injury data for the first quarter of 1985 and 1986. Data for 1985 and 1986 shown in the following tables are incomplete at this time since many of the marine casualties are still being investigated or are in various stages of completion.

As of August 25, 1986, the Coast Guard has received reports on only 556 waterborne accidents in the first quarter of 1986; while 855 were reported in the same quarter of 1985. During the same periods, 913 vessels were involved in waterborne accidents in 1986 versus ,602 in 1985. The comparison of fatalities for the first three months is: 1986 - 6, 1985 - 38. The comparison of injuries for the same period is: 1986 - 15, 1985 - 28. The 1986 statistics are lower than last year's first quarter submission, but this is attributed to the fact that data are incomplete at this time.

CHART 21.

WATERBORNE FATALITIES RESULTING FROM VESSEL CASUALTIES*, 1985 - 1986

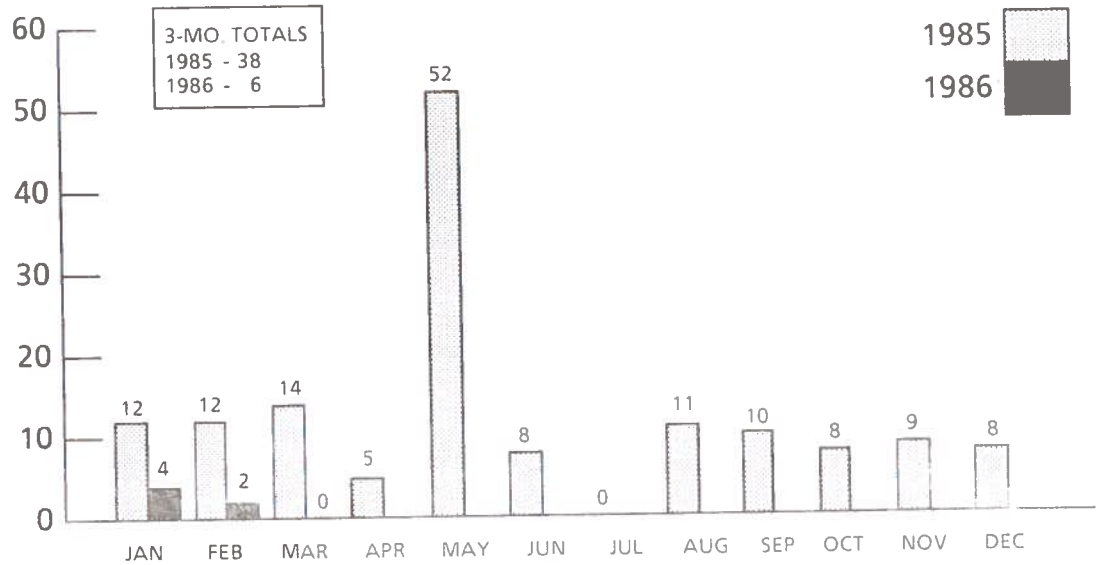
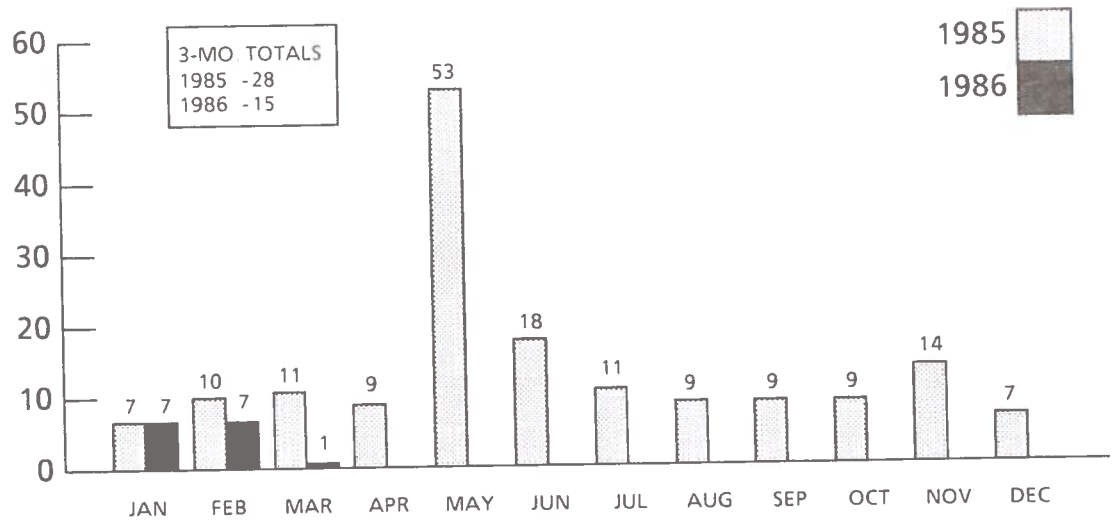


CHART 22.

WATERBORNE INJURIES RESULTING FROM VESSEL CASUALTIES*, 1985 - 1986



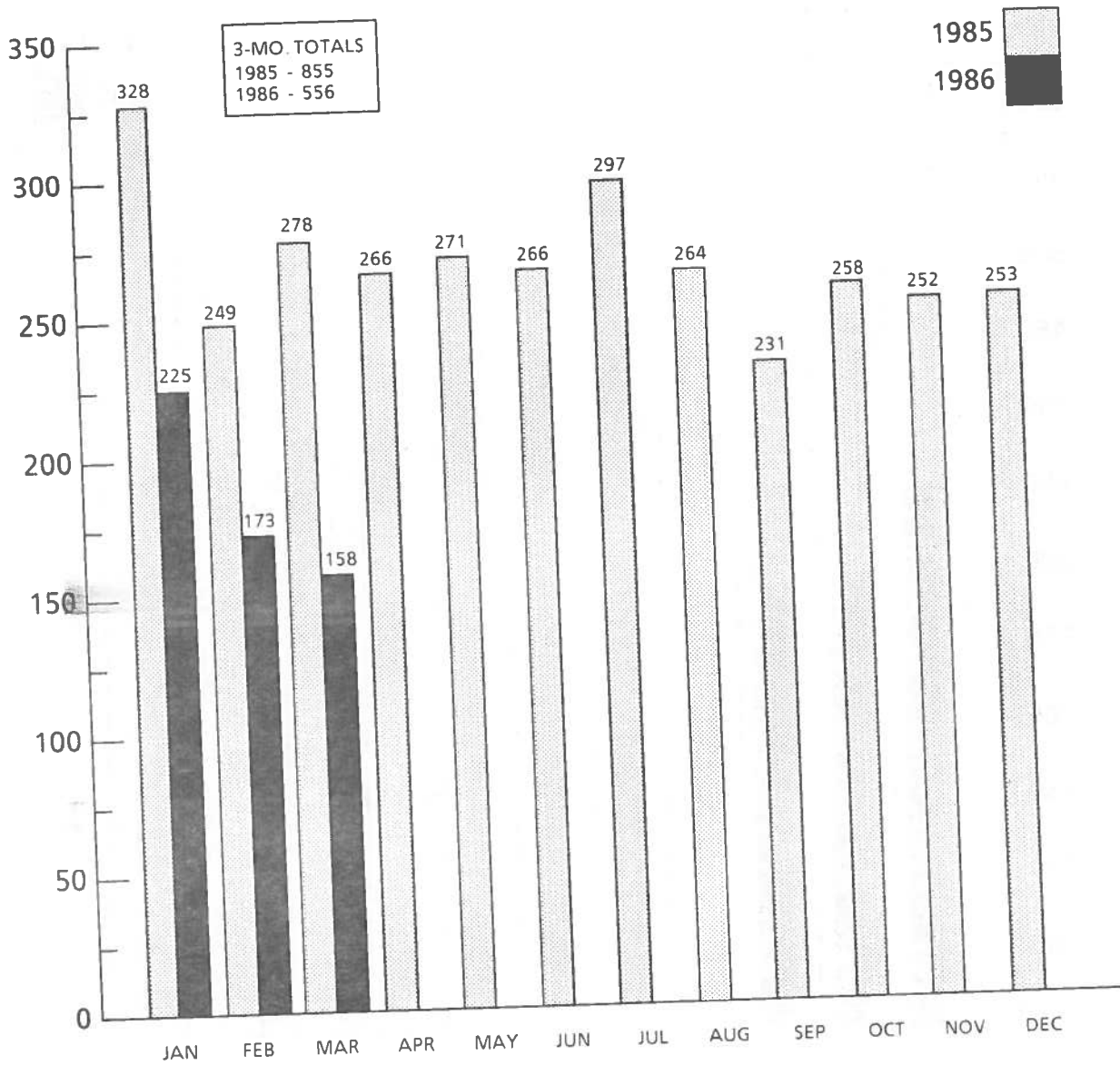
* Includes foreign vessels having casualties in U.S. navigable waters.

NOTE: Data for 1985 and 1986 are incomplete.

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

CHART 23.

WATERBORNE ACCIDENTS BY MONTH, 1985-1986

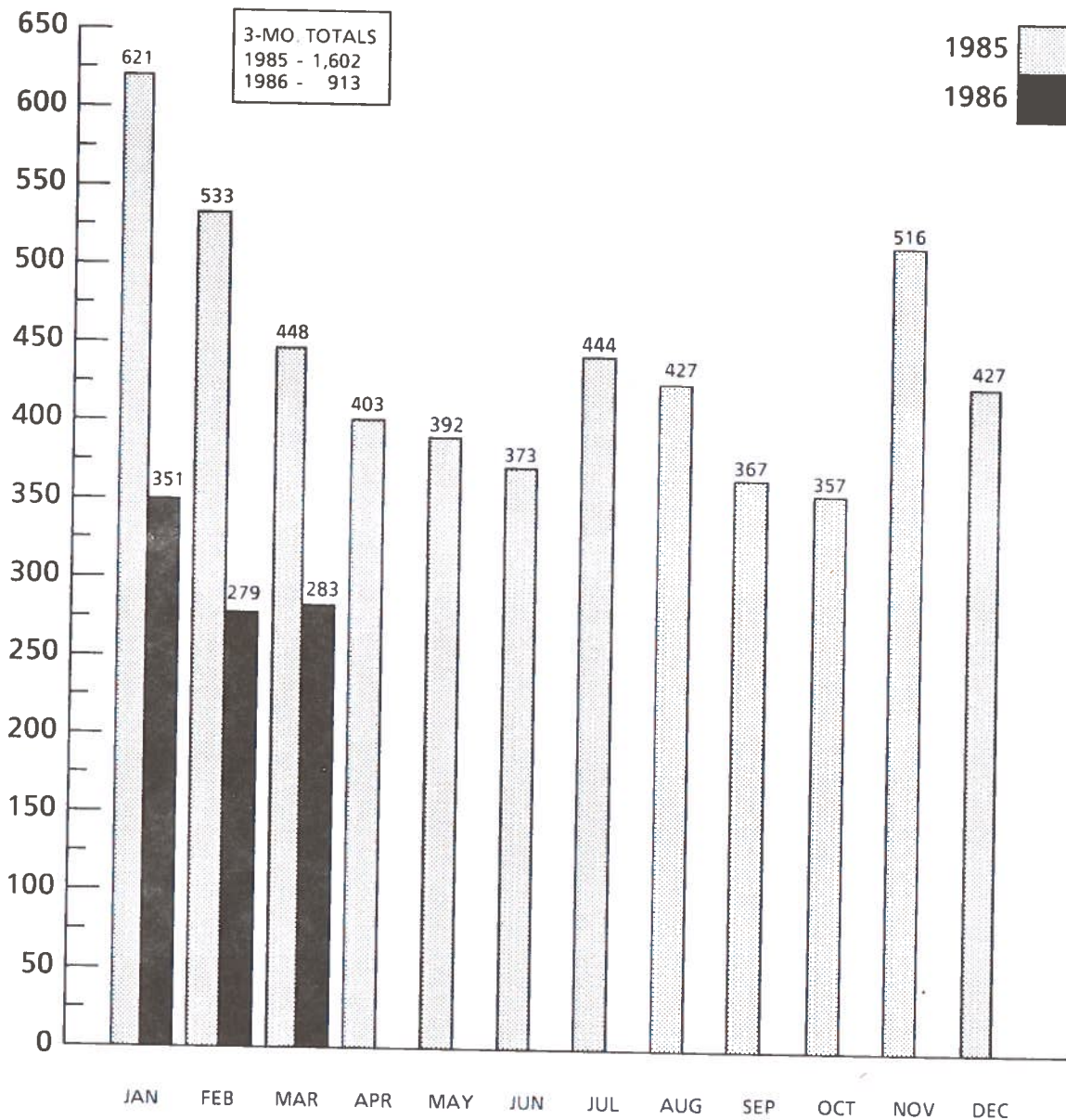


NOTE: More than one vessel may be involved in a marine accident.
Data for 1985 and 1986 are incomplete.

JRCE: USCG, Marine Investigation Division, G-MMI

CHART 24.

VESSELS* INVOLVED IN WATERBORNE ACCIDENTS, 1985-1986



* Includes foreign vessels having casualties in U.S. navigable waters.
NOTE: Data for 1985 and 1986 are incomplete.
More than one vessel may be involved in a marine accident.

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

RECREATIONAL BOATING

First quarter 1986 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 August 4, 1986, the Coast Guard has received reports of 605 vessels being involved in accidents for the first quarter of 1986, while in 1985, 552 vessels were reported to be in accidents for the same period. So far, 117 fatalities have been reported in the first three months of 1986 versus 141 in 1985. The comparison of injuries is: 1986 - 194; 1985 - 162.

Preliminary data for the first quarter of 1986 show that boating accidents increased 10 percent over the same period of 1985. However, the number of fatalities decreased 17 percent during the same periods. When noting these comparisons, remember that reports are not yet complete.

CHART 25.

RECREATIONAL BOATING FATALITIES, 1985-1986

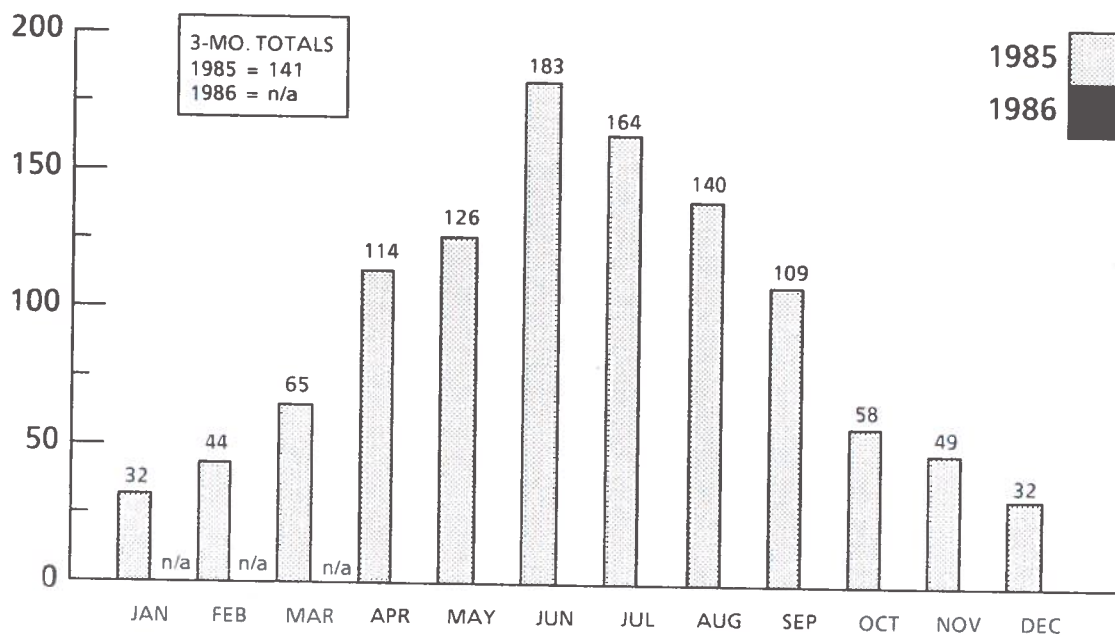
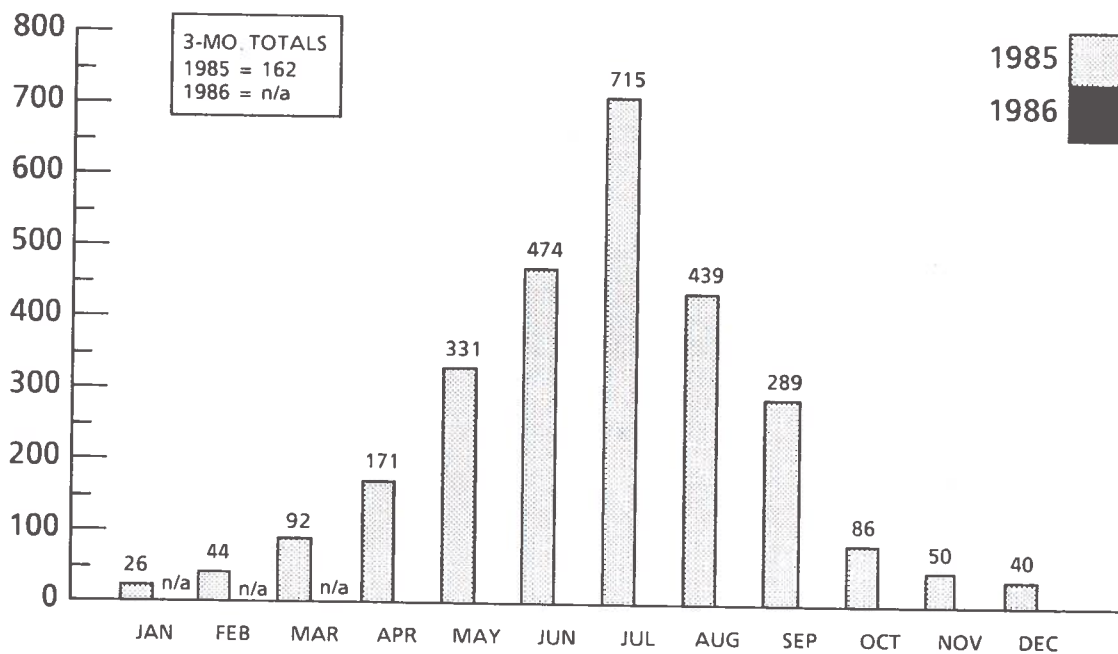


CHART 26.

RECREATIONAL BOATING INJURIES, 1985-1986

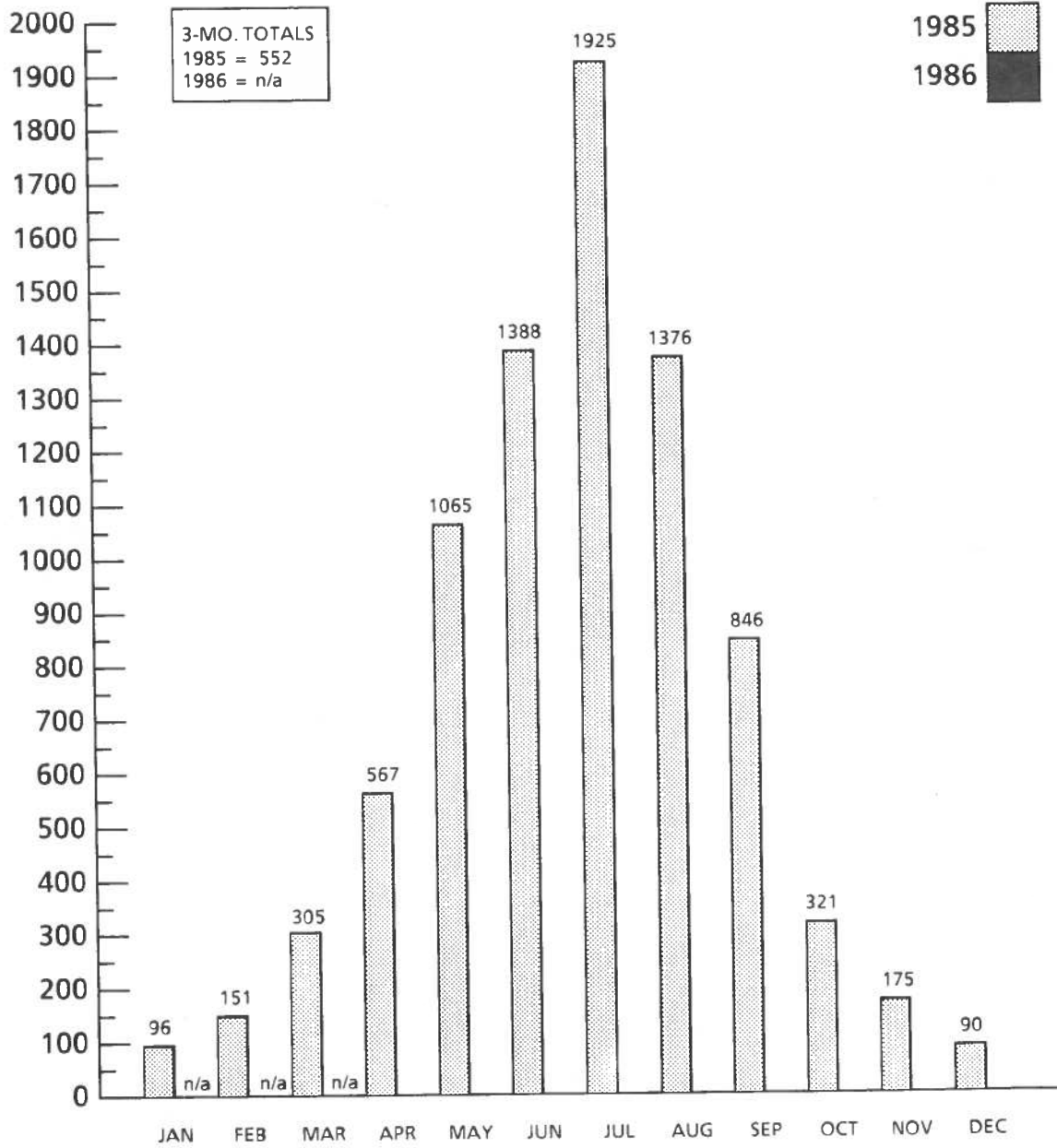


n/a: Not available.

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

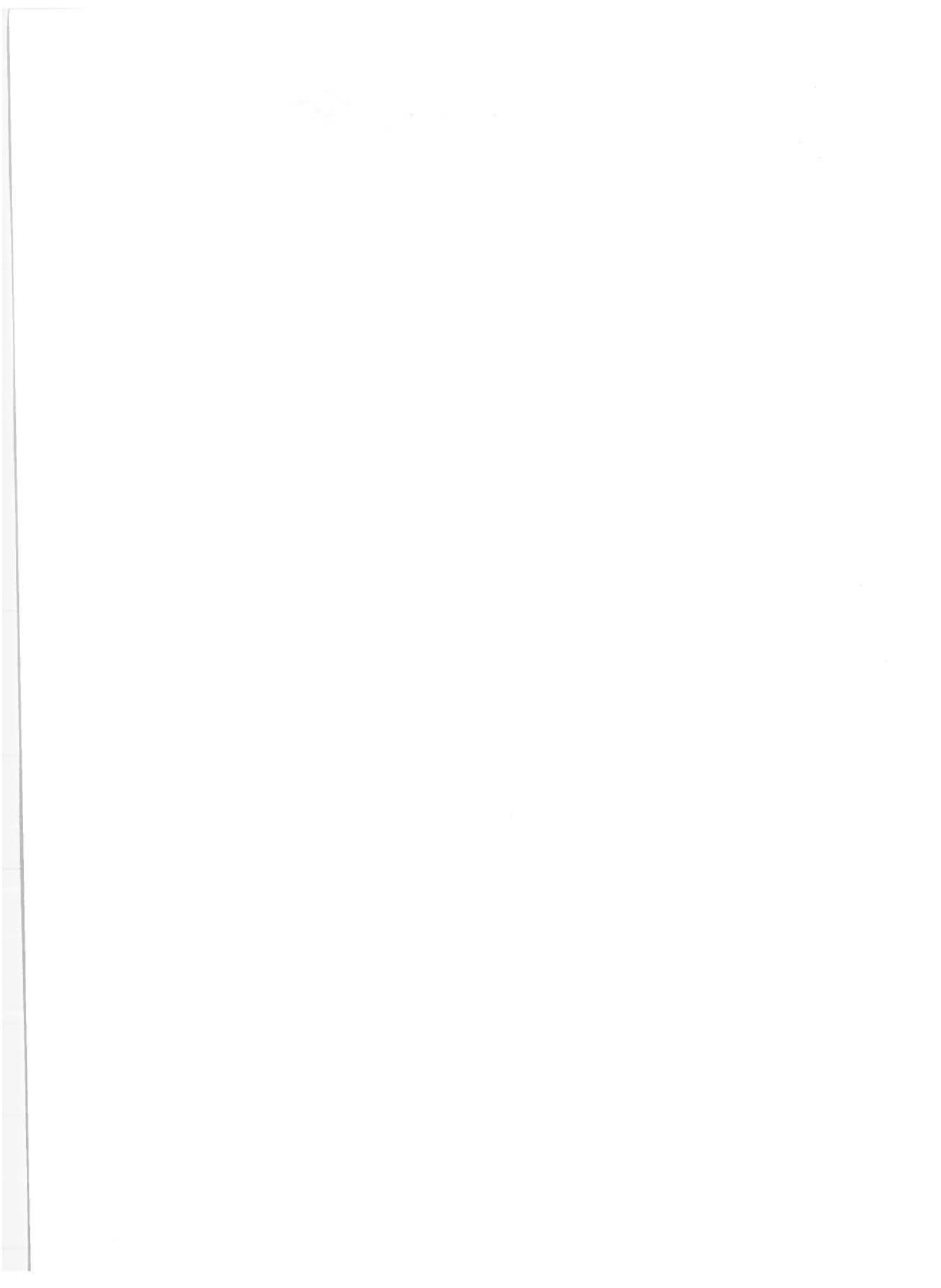
CHART 27.

RECREATIONAL BOATING, REPORTED ACCIDENTS 1985-1986



n/a: Not available.

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



MATERIALS TRANSPORT

PIPELINES

- In the first quarter of 1986, fatalities and injuries resulting from incidents involving the transport of natural gas increased when compared to the first quarter of 1985. There were nine fatalities and 47 injuries reported in 1986 versus five and 44, respectively, in 1985. However, the number of leaks/failures declined from 128 in the first three months of 1985 to 63 in the corresponding period of 1986.
- The number of liquid pipeline leaks/failures increased from 40 in the first quarter of 1985 to 42 in the same 1986 period; fatalities increased from zero to one; and injuries decreased from one to zero in the same periods.

HAZARDOUS MATERIALS

- During the first three months of 1986, Hazardous Materials fatalities and incidents decreased when compared to the first three months of 1985. To date, no fatalities have been reported in 1986, while three fatalities were reported in 1985. The number of incidents dropped from 1,424 in the first quarter of 1985 to 905 in 1986. Major injuries increased from zero in the first quarter of 1985 to 12 in the corresponding period of 1986, while minor injuries decreased from 66 to 22 in the same periods of 1985 and 1986.

MATERIA AIRPORT
TABLE 6.

PIPELINE FATALITIES FOR 1986 COMPARED WITH 1985

CLASSIFICATION	JANUARY		FEBRUARY		MARCH	
	1985	1986	1985	1986	1985	1986
GAS PIPELINE	2	0	3	8	0	1
LIQUID PIPELINE	0	0	0	1	0	0
TOTAL	2	0	3	9	0	1

CLASSIFICATION	FIRST QUARTER		
	1985	1986	% Chg
GAS PIPELINE	5	9	+ 80.0
LIQUID PIPELINE	0	1	[1]
TOTAL	5	10	+ 100.0

NOTE: 1986 data are preliminary.
 Pipeline incidents are credited to the year in which they occurred, not the year in which the report was received.
 [1] Not calculable.

Data supplied as of 9/22/86.

SOURCE: Liquid Pipeline: DOT F7000-1 Pipeline carrier report.
 Gas Pipeline: DOT F7100.1 and F7100.2
 RSPA, Office of Pipeline Safety, DPS-40.

CHART 28A.
GAS PIPELINE FATALITIES, 1985-1986

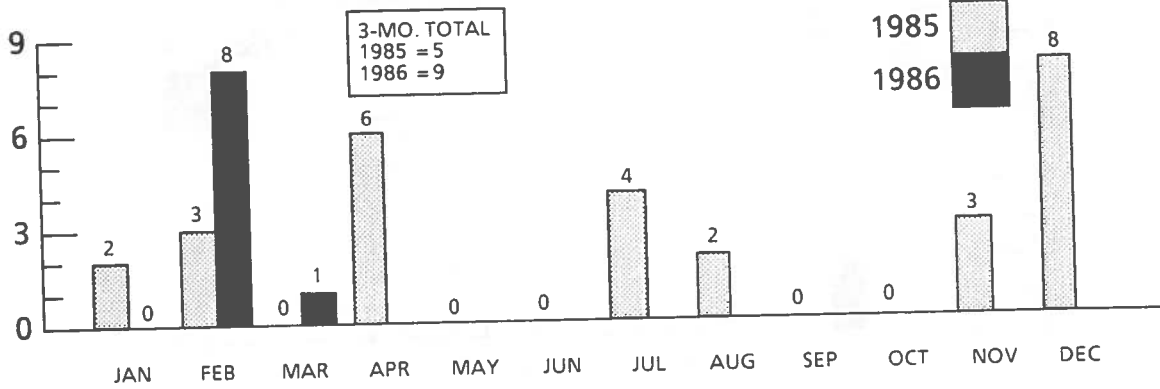


CHART 28B.
GAS PIPELINE INJURIES, 1985-1986

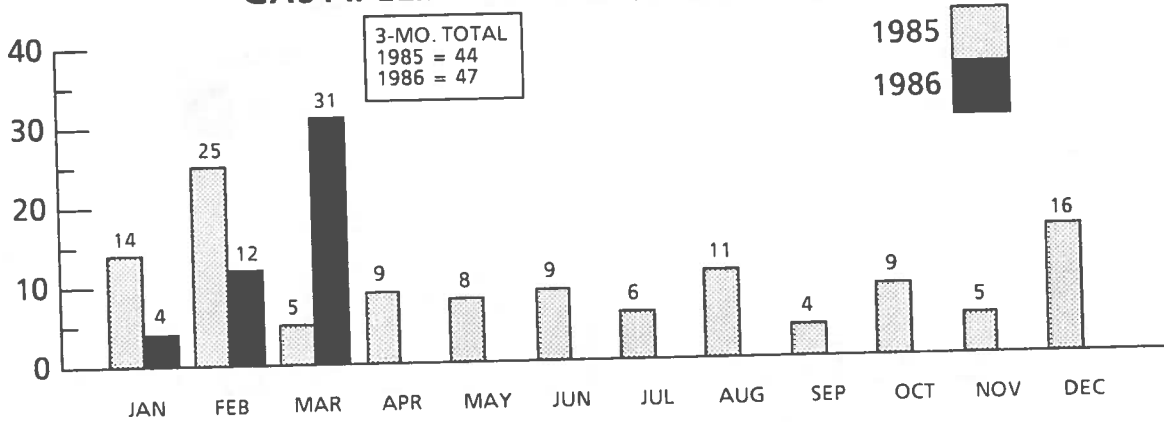
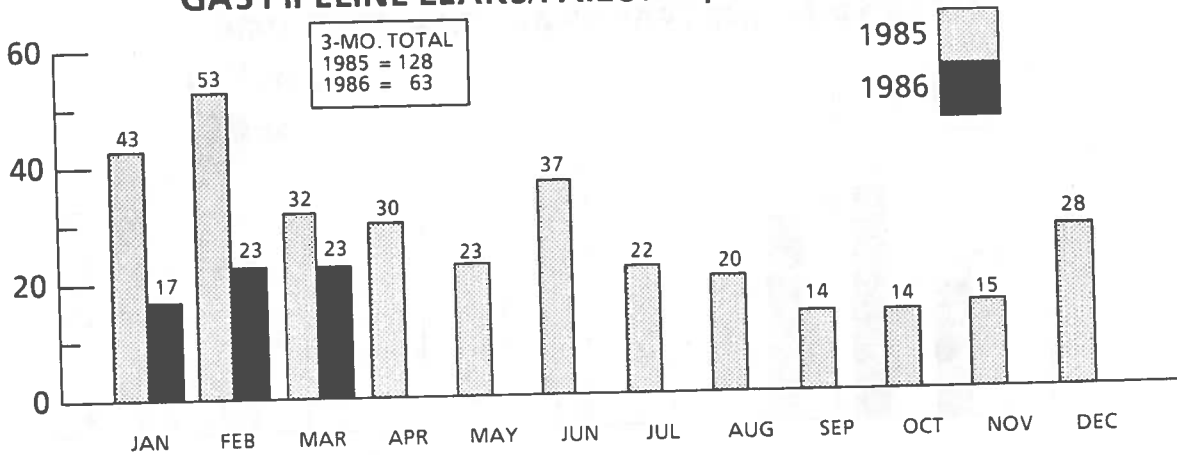


CHART 28C.
GAS PIPELINE LEAKS/FAILURES, 1985-1986



NOTE: 1986 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 9/22/86.

SOURCE: Gas Pipeline: DOT F 7100.1 and F7100.2.
RSPA, Office of Pipeline Safety, DPS-40.

CHART 29A.
LIQUID PIPELINE FATALITIES, 1985-1986

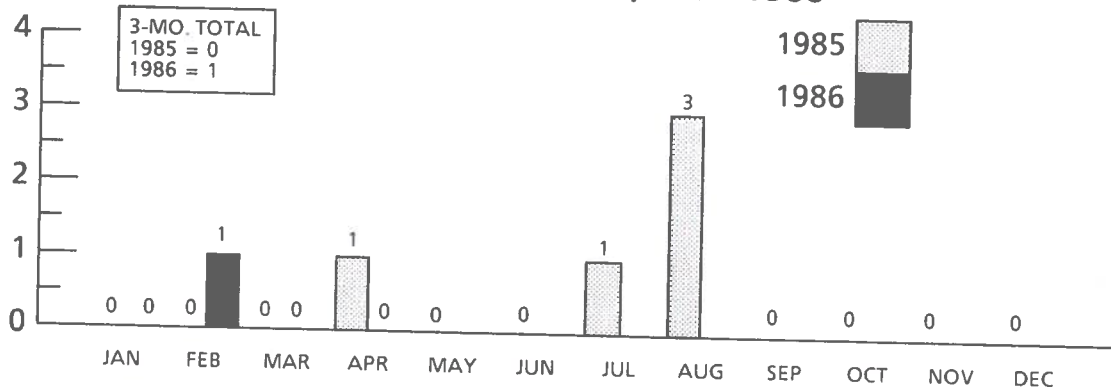


CHART 29B.
LIQUID PIPELINE INJURIES, 1985-1986

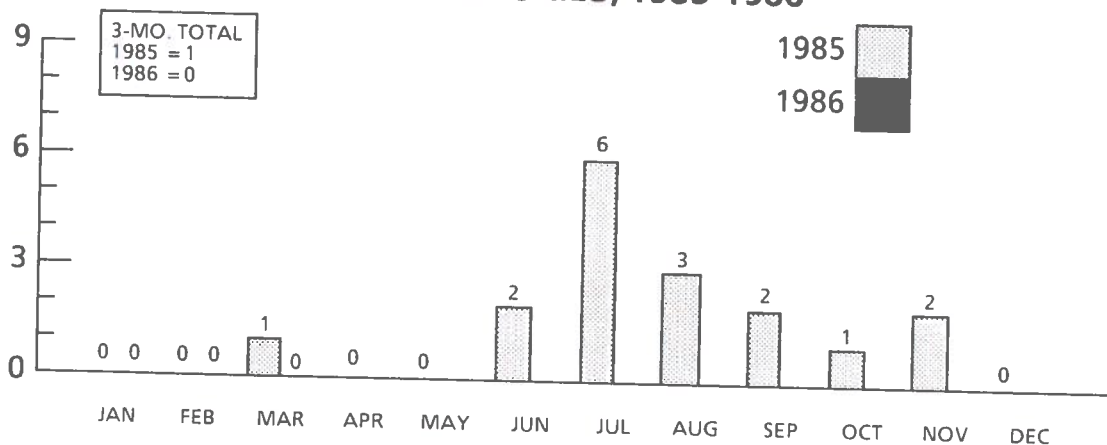
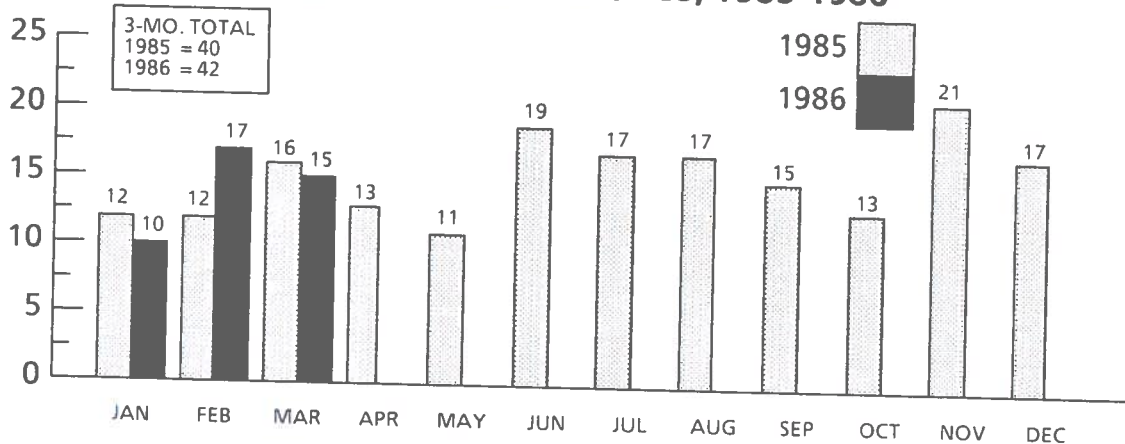


CHART 29C.
LIQUID PIPELINE LEAKS/FAILURES, 1985-1986



NOTE: 1986 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 9/22/86.

SOURCE: Liquid Pipeline: DOT F 7000.0.
 RSPA, Office of Pipeline Safety, DPS-40.

TABLE 7.

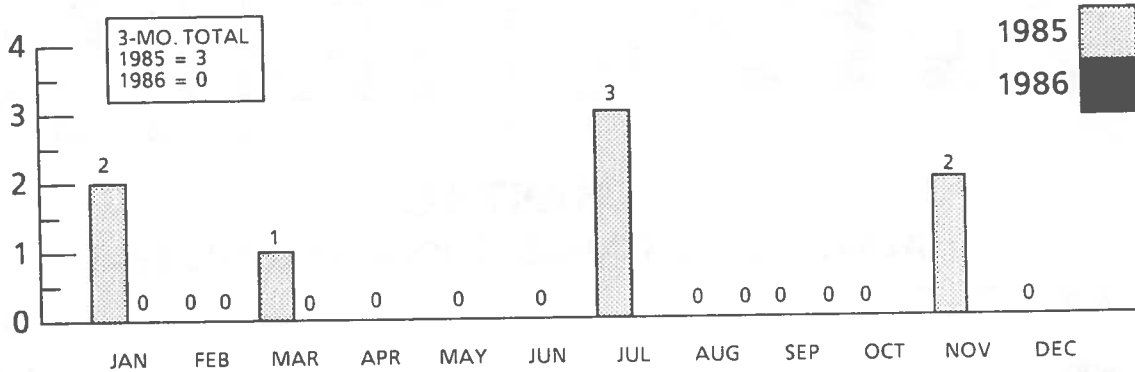
HAZARDOUS MATERIALS FATALITIES FOR 1986 COMPARED WITH 1985

JANUARY		FEBRUARY		MARCH	
1985	1986	1985	1986	1985	1986
2	0	0	0	1	0

FIRST QUARTER		
1985	1986	% Chg
3	0	-100.0

CHART 30.

HAZARDOUS MATERIALS FATALITIES, BY MONTH, 1985-1986



NOTE: 1986 data are preliminary.

Data supplied as of 08/19/86.

SOURCE: RSPA, Office of Hazardous Materials Transportation, DHM-63.

CHART 31A.

HAZARDOUS MATERIALS MAJOR INJURIES*, 1985-1986

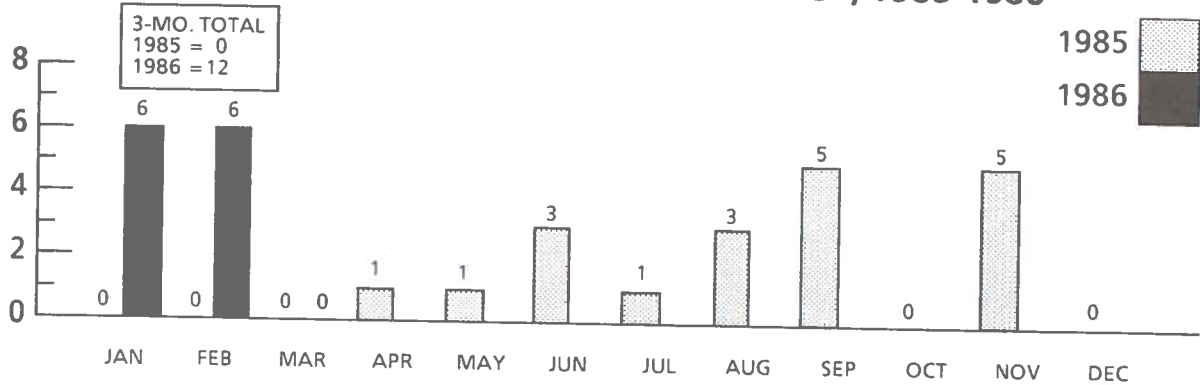


CHART 31B.

HAZARDOUS MATERIALS MINOR INJURIES*, 1985-1986

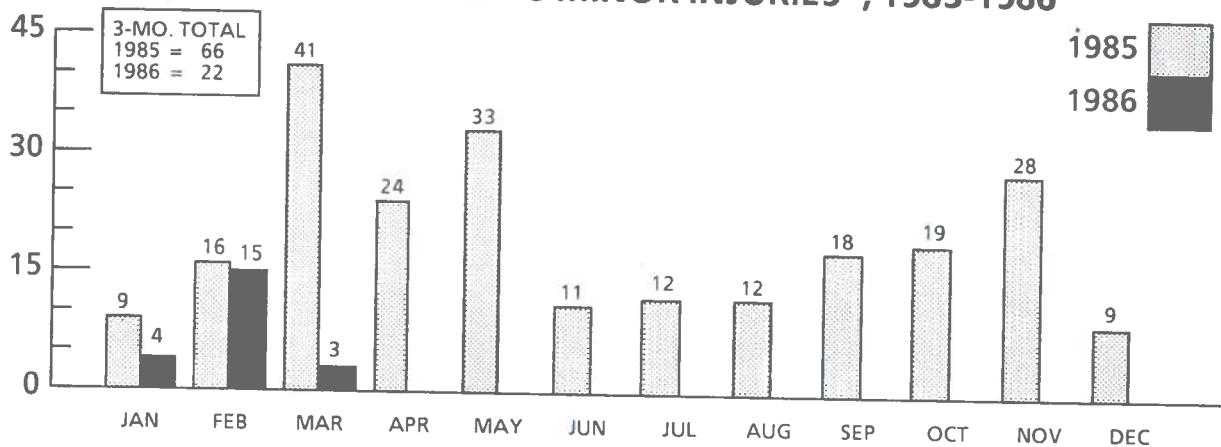
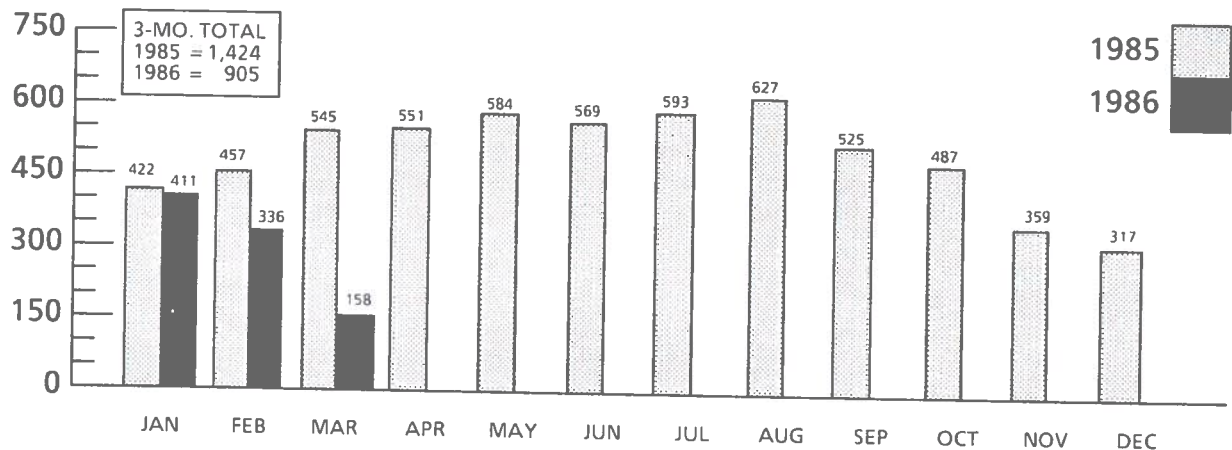


CHART 32.

HAZARDOUS MATERIALS INCIDENTS**, 1985-1986



* See Glossary for definition.

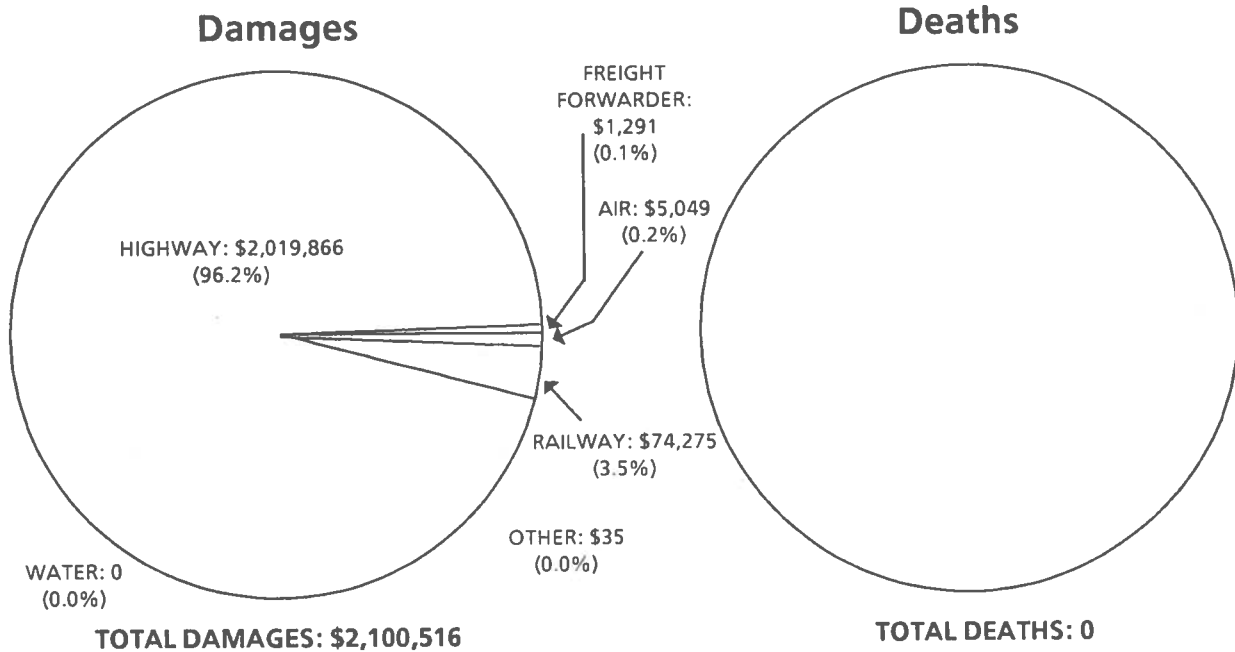
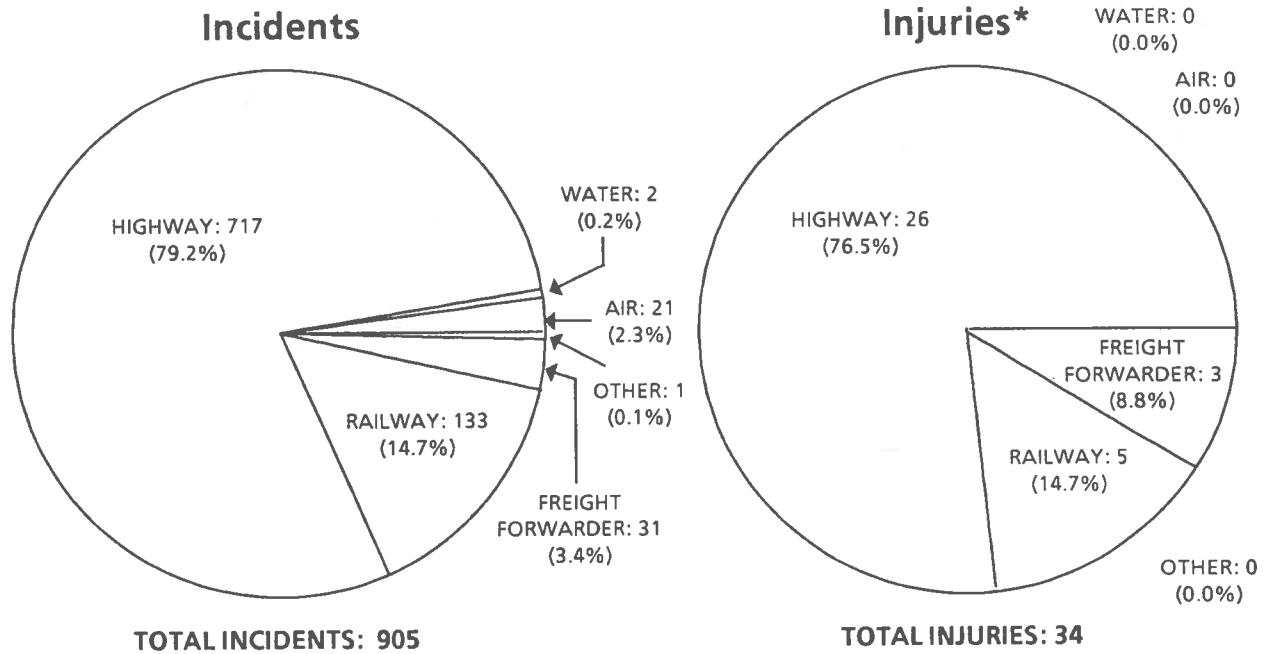
** Hazardous Materials Incidents are reported in the year in which they occurred.
NOTE: 1986 data are preliminary.

Data supplied as of 08/19/86

SOURCE: RSPA, Office of Hazardous Materials Transportation, DHM-63.

CHART 33.

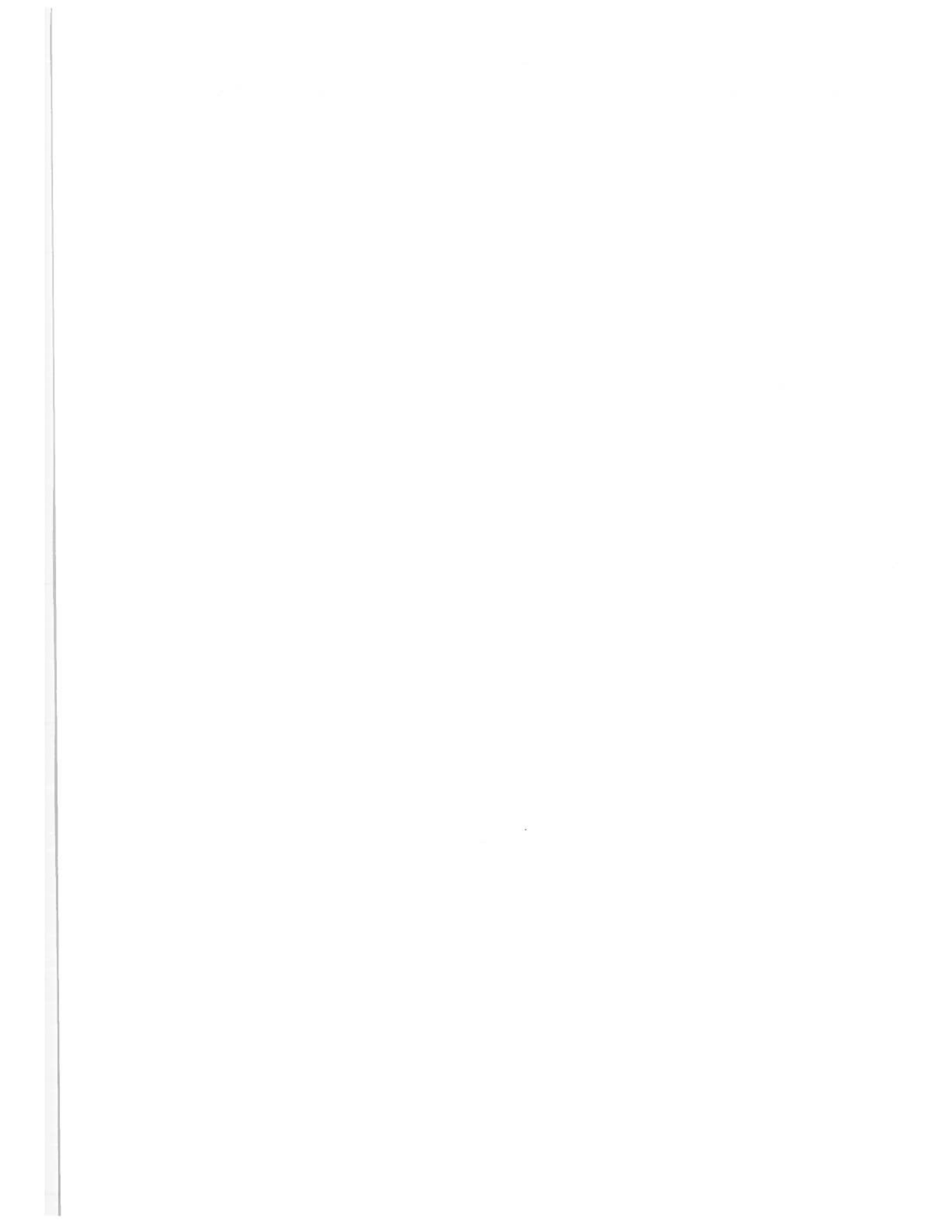
HAZARDOUS MATERIALS INCIDENTS, INJURIES, DEATHS AND DAMAGES BY MODE, FIRST THREE MONTHS 1986^P



P = Preliminary.
 * Includes Major and Minor Injuries.

Data supplied as of 08/19/86

SOURCE: RSPA, Office of Hazardous Materials Transportation, DHM-63.



MAJOR DOT SAFETY REGULATIONS

JANUARY 1, 1986 - MARCH 31, 1986

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 169, 170, 171, and 173 -- Sailing School Vessel Regulations

The Coast Guard is establishing a new set of inspection regulations for sailing school vessels, as mandated by the Sailing School Vessel Act of 1982, Pub. L. 97-322. Current Coast Guard regulations do not consider the special characteristics, operating methods, and service of these vessels. These regulations establish minimum inspection standards necessary for the safe operation of sailing school vessels. Previously uninspected vessels that qualify under these standards may be able to carry more persons than currently allowed. Effective date January 9, 1986. (51 FR 888, January 9, 1986.)

33 CFR Parts 146, 175, and 181 -- Hybrid PFD Carriage Requirements

These rules authorize carriage of hybrid inflatable personal flotation devices (hybrid PFD's) on recreational boats on Outer Continental Shelf facilities and establish conditions for their use. Use of approved hybrid PFD's is optional but, if carried, certain limitations apply. Compared to most other approved PFD's, hybrid PFD's are more comfortable to wear, because they contain less flotation material, yet they provide greater buoyancy when fully inflated. This comfort feature should lead to increased wearing of PFD's and result in a corresponding reduction in the number of drownings in boating accidents. Effective date August 4, 1986. (51 FR 4338, February 4, 1986.)

46 CFR Parts 25, 35, 78, 97, 108, 160, 167, and 196 -- Commercial Hybrid PFD Carriage Requirements

These rules authorize the carriage of commercial hybrid PFD's in place of life preservers on uninspected commercial vessels and as work vests on certain inspected commercial vessels. Use of approved hybrid PFD's is optional but, if carried, certain limitations apply. Compared to most other approved PFD's, hybrid PFD's are more comfortable to wear and provide more buoyancy when fully inflated. These features should lead to increased wearing of PFD's and work vests and result in a corresponding reduction in the number of drownings in accidents involving commercial vessels. These rules also contain editorial corrections to the specifications and approval procedures for hybrid PFD's. Effective date March 6, 1986. (51 FR 4349, February 4, 1986.)

46 CFR Part 169 -- Sailing School Vessel Regulations; Correction

This document corrects the errors contained in the final regulations published January 9, 1986 (51 FR 888), implementing the Sailing School Vessel Act of 1982. This action is necessary to correct errors in a discussion of required equipment in the preamble and the rule, cross referenced text in the preamble, and a cross reference in the rule. (51 FR 10632, March 28, 1986.)

46 CFR Part 10 -- Licensing of Pilots; Annual Physical Examination

This confirms without change the interim final rule published on December 23, 1985, that amended the annual physical examination requirements for pilots to allow first class pilots to take the required physical examination at any time during the calendar year, with the stipulation that the time between each physical examination may not exceed 13 months. This rule provides flexibility in scheduling physical examinations in order to accommodate the employment practices in the merchant marine. Effective date March 31, 1986. (51 FR 10837, March 31, 1986.)

FEDERAL AVIATION ADMINISTRATION

14 CFR Part 125 -- Delay of Part 125 Applicability of Part 129 Operators

This amendment to the Federal Aviation Regulations extends the date from February 28, 1986, to February 28, 1987, for foreign air carriers holding Part 129 operations specifications to comply with Part 125 of the Federal Aviation Regulations. Since the FAA has an active rulemaking project which includes a study of changes to Part 129, this action is necessary to avoid requiring foreign air carriers to comply with rules which may be revised by the FAA in the near future. Effective date February 28, 1986. (51 FR 873, January 8, 1986.)

14 CFR Part 33 -- Airworthiness Standards; Aircraft Engines; Turboprop Engine Propeller Brake

This amendment establishes new airworthiness standards applicable to turbopropeller engines equipped with a propeller brake. The brake allows the propeller to be brought to a stop while the gas generator portion of the engine remains in operation as an auxiliary power unit (APU). The amendment is needed to establish an appropriate level of safety for the certification of aircraft engines with this new feature. Effective date April 24, 1986. (51 FR 10344, March 25, 1986.)

14 CFR Parts 11 and 121 -- Emergency Medical Equipment

This amendment requires certificate holders to carry in their aircraft medical kits containing equipment for use in the diagnosis and treatment of medical emergencies that might occur during flight time. The amendment further requires each certificate holder to report such medical emergencies annually for two years after implementation of the rule and to describe how the medical kit was used, by whom, and the outcome of the medical emergency. The intended effect of this amendment is to enhance the potential for diagnosis and initial treatment of medical emergencies during flight time. Effective date August 1, 1986. (51 FR 1218, January 9, 1986.)

14 CFR Parts 61, 63, and 91 -- Submission to Alcohol Tests

These amendments establish rules requiring crewmembers to submit to chemical tests for alcohol given by law enforcement officers under certain conditions. It is based, in part, on the National Transportation Safety Board (NTSB) determination that alcohol is a cause or factor in a significant number of aircraft accidents annually, many of which are fatal. The proposed amendment would facilitate the enforcement of the present alcohol regulations. It is intended to reduce aircraft

accidents and incidents attributed to consumption of alcoholic beverages. Effective date April 9, 1986. (51 FR 1226, January 9, 1986.)

14 CFR Parts 107 and 108 -- Airport and Airplane Operator Security Rules

This final rule makes a number of minor substantive and editorial changes in the airport and airplane operator security rules regarding the carrying of an explosive, and incendiary, or a deadly or dangerous weapon and the entry of person into sterile areas. They are needed to provide consistency within the rules and to ensure that the rules are given their intended effect. These amendments are being adopted to further enhance airport and air carrier security in response to the current heightened threat to U.S. civil aviation throughout the world. Effective date January 10, 1986. (51 FR 1350, January 10, 1986.)

AIRWORTHINESS DIRECTIVES

14 CFR Part 39 -- Gulfstream Aerospace Corp. Model GA-7 Airplanes

This amendment adopts a new airworthiness directive (AD), applicable to Gulfstream Aerospace Corporation Model GA-7 airplanes which requires a one time visual inspection and if necessary incorporation of corrosion protection or replacement of the rudder torque tube. Reports of corrosion and cracks have been reported on the torque tube at the bellcrank area and if this condition is left uncorrected, the torque tube could fail and loss of control of the airplane could occur. This AD will preclude this failure. Effective date January 3, 1986. (51 FR 5, January 2, 1986.)

14 CFR Part 39 -- Lockheed California Company Model L-1011-385 Series Airplanes

This amendment adopts a new airworthiness directive (AD) that requires a resistance check for dormant shorted capacitors in the oxygen initiator sequence timer switch(es) and replacement(s), as necessary, on Lockheed Model L-1011-385 series airplanes. The AD is prompted by a recent incident wherein the passenger oxygen system on an L-1011-385-3 airplane failed to activate, automatically and manually, after the loss of cabin pressure during descent. The system failure was attributed to two shorted transient suppression capacitors in the oxygen initiator sequence timer switch. Failure to activate the passenger oxygen system after loss of cabin pressure may adversely affect the safety of the passengers. Effective date January 21, 1986. (51 FR 338, January 6, 1986.)

14 CFR Part 39 -- Lockheed California Company Model L-1011 Series Airplanes

This amendment adopts a new airworthiness directive (AD) which requires testing of all passenger cabin doors to determine if they will open in the emergency mode within prescribed time limits, and replacing, as necessary, components in the door opening mechanism on Lockheed Model L-1011 series airplanes. This AD is prompted by the report of a door failing to open completely after being deployed in the emergency mode following an emergency landing because of an inflight fire. This AD is necessary because the loss of the use of one or more passenger doors can jeopardize passenger/crew safety during an emergency evacuation. Effective date January 21, 1986. (51 FR 339, January 6, 1986.)

14 CFR Part 39 -- Allison Gas Turbine Division, General Motors Corporation, Allison Model 250-C28 and -C30 Series Engines

This amendment adopts a new airworthiness directive (AD) which requires repetitive inspections of compressor mount assembly, P/Ns 6896021, 6898966, and 6898611 followed by replacement with P/N 23007217 at the next overhaul or repair event, but not later than November 30, 1986, on certain Allison Model 250-C28 and -C30 series engines. The AD is needed to prevent possible failure of compressor mount assembly P/Ns 6896021, 6898966 or 6898611 that could lead to an inflight loss of power/shutdown or an overspeed uncontained failure of the gas producer turbine rotor. Effective date January 6, 1986. (51 FR 733, January 8, 1986.)

14 CFR Part 39 -- Boeing Model 747-300 Series Airplanes

This amendment adds a new airworthiness directive (AD) applicable to certain Boeing Model 747-300 series airplanes. This AD requires the inspection of the upper deck left and right door for integrity of the escape slide deployment hook installation and upper hinge arm installations and repair, if necessary. This action is prompted by several reports of defective (insufficient locking torque) self-locking nuts. These conditions, if not corrected, could prevent automatic deployment of the escape slide and/or opening of the door, which would jeopardize successful emergency evacuation of the airplane. Effective date January 27, 1986. (51 FR 1247, January 10, 1986.)

14 CFR Part 39 -- Rolls-Royce Limited Dart Engine Series 506, 510, 511, 514, 525, 526, 527, 528, 529, 530, 531, 532, 535, 542, 550, and All Variants of These Series

This amendment amends an existing airworthiness directive (AD) which requires a one time inspection of certain low pressure impellers on Rolls-Royce Limited Dart engine series 506, 510, 511, 514, 525, 526, 527, 528, 529, 530, 531, 532, 535, 542, 550, and all variants of these series. The amendment is needed to include in the inspection process, impellers which were not required to be inspected by the original AD. The added inspections are needed to prevent possible failure of the low pressure impeller which could result in an uncontained engine failure. Effective date January 6, 1986. (51 FR 1363, January 13, 1986.)

14 CFR Part 39 -- Bell Helicopter Textron, Inc.; Model 412 Helicopters, Serial Numbers 33001 through 33120

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 certain Bell Helicopter Textron, Inc., Model 412 helicopters. The AD requires a visual inspection of the front spar cap for a possible fatigue crack, and replacement of the spar cap if a crack is found. Since publication as a priority letter AD, the AD has been revised to require modification of the front spar which eliminates the special inspection requirement. This AD is necessary to prevent failure of the front spar of the vertical fin. Failure to detect a crack can result in severe additional structural damage and possible loss of the fin. Effective date February 3, 1986. (51 FR 1489, January 14, 1986.)

14 CFR Part 39 -- Sikorsky Model S-58 Series Helicopters

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 Model S-58A, B, C, D, E, F, G, H, J, BT, DT, ET, FT, HT, and

JT; CH-34 series; HH-34 series; SH-4 series; UH-34 series; and VH-34 series helicopters by individual letters. The AD requires repetitive inspection of the main rotor head star assembly bolts for security and damage and replacement as necessary. The AD is needed to prevent the separation of the stationary star and rotating star which could result in loss of control of the helicopter. Effective date January 13, 1986. (51 FR 1491, January 14, 1986.)

14 CFR Part 39 -- Boeing Model 747 Airplanes

This amendment amends an existing airworthiness directive (AD) which requires inspection of trailing edge flap tracks for corrosion and cracking on certain Boeing Model 747 airplanes. This amendment will allow increased inspection intervals on those airplanes incorporating a maximum operational flap setting of 25 degrees. Investigations have shown that this may be accomplished without adversely impacting safety. Effective date February 24, 1986. (51 FR 2348, January 16, 1986.)

14 CFR Part 39 -- Boeing Model 767 Series Airplanes

This amendment adds a new airworthiness directive (AD) applicable to certain Boeing Model 767 airplanes. This AD requires the inspection of all entry/service door operating mechanisms for integrity of the upper and lower pushrod installations and repair, if necessary. This action is prompted by several reports of defective (insufficient locking torque) self-locking nuts. This condition, if not corrected, could prevent unlatching of the door, which would jeopardize successful emergency evacuation of the airplane. Effective date February 3, 1986. (51 FR 2350, January 16, 1986.)

14 CFR Part 39 -- Boeing Model 727 Series Airplanes

This amendment adds a new airworthiness directive (AD) applicable to all Boeing Model 727 airplanes, which requires repetitive visual inspection for cracks and repair, if necessary, of the aft pressure bulkhead (Body Station 1183) web and strap. This action is prompted by a recent report of web and strap cracks. These cracks, if allowed to grow to the adjacent web and strap, can result in rapid decompression of the airplane during flight. Effective date February 6, 1986. (51 FR 3027, January 23, 1986.)

14 CFR Part 39 -- McDonnell Douglas Model DC-10 and KC-10A (Military) Series Airplanes

This amendment adopts a new airworthiness directive (AD) which requires a parking brake valve position monitor circuit maintenance check every 3,000 flight hours, or modification of the anti-skid parking brake shut-off valve monitoring circuit system, on certain McDonnell Douglas Model DC-10 and KC-10A airplanes. This action is prompted by the failure of the anti-skid fail lights to illuminate when a sticking parking brake valve resulted in an inoperative anti-skid system; when brakes were then applied after landing, the four main tires failed, due to skidding. This AD is needed to ensure that failure of the anti-skid system is detected. Effective date March 13, 1986. (51 FR 4300, February 4, 1986.)

14 CFR Part 39 -- Boeing Model 767-200 Airplanes

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 to all known U.S.

owners and operators of certain Boeing Model 767-200 airplanes by individual telegrams. The AD requires inspection and replacement, if necessary, of self-locking nuts located in certain critical areas of the airplanes. This action was prompted by the discovery that two elevator actuator rod end bolt retaining nuts on one recently delivered Model 767 airplane did not have their intended self-locking feature. Such a nut could back off its mating bolt and result in a disconnection of the affected joint. Multiple disconnections of elevator to actuator joints could result in partial or complete loss of airplane control. These nuts have other critical applications on the Model 767 airplane, which are also addressed in the AD. Effective date February 24, 1986. (51 FR 4301, February 4, 1986.)

14 CFR Part 39 -- British Aerospace Model BAC 1-11 200 and 400 Series Airplanes

This amendment adds a new airworthiness directive (AD) that requires inspection for cracks or damage, and repairs or replacement, as necessary, of certain components of the nose and main landing gears of British Aerospace Model BAC 1-11 200 and 400 series airplanes. There have been reports of cracks in the main landing gear rear pintle support beam, and of a nose landing gear collapse. These conditions, if not corrected, have the potential of leading to a catastrophic landing. Effective date March 17, 1986. (51 FR 4588, February 6, 1986.)

14 CFR Part 39 -- Cessna Models 425 and 441 Airplanes

This amendment adopts a new airworthiness directive (AD), AD 85-25-11, applicable to certain Cessna Models 425 and 441 airplanes and codifies the corresponding emergency AD letter dated December 18, 1985, into the Federal Register. The AD is necessary because one or both of the horizontal stabilizer front spar attachment bolt retaining nuts may be broken, or subject to failure from hydrogen embrittlement, resulting in possible separation of the stabilizer from the aircraft. Effective date February 12, 1986. (51 FR 4588, February 6, 1986.)

14 CFR Part 39 -- Boeing Model 767 Series Airplanes

The amendment adds a new airworthiness directive (AD) which requires modification of the counterbalance gearbox assembly on certain Boeing Model 767 entry/service doors. This action is prompted by reports of gearbox failure, which could prevent the door from opening when necessary for emergency evacuation. Effective date March 27, 1986. (51 FR 5702, February 18, 1986.)

14 CFR Part 39 -- Boeing Model 757-200 Series Airplanes

This amendment adds a new airworthiness directive (AD) that requires replacement of the existing elevator control forward override assembly cam on certain Boeing Model 757 airplanes. This action is prompted by a report of an incident during functional testing which resulted in jamming of both elevator control columns against the stops. This condition, if not corrected, could result in loss of elevator control. Effective date April 10, 1986. (51 FR 7250, March 3, 1986.)

14 CFR Part 39 -- Boeing Model 737 Series Airplanes

This amendment adds a new airworthiness directive (AD) that requires the addition of tether straps to limit the opening motion of the escape slide cover on the aft doors of Boeing Model 737 airplanes. During recent testing, it was determined that, with rapid door opening, the escape slide cover can swing open far enough to allow the girt bar stowage bracket to hook in the doorway, temporarily

arresting the door opening motion. This condition could cause delay in an emergency evacuation. Effective date April 11, 1986. (51 FR 7432, March 4, 1986.)

14 CFR Part 39 -- Boeing Model 737-300 Series Airplanes

This action withdraws and reissues a correction to Airworthiness Directive (AD) T85-11-52, Amendment 39-5105 (50 FR 29648; July 22, 1985), an AD applicable to the Boeing Model 737-300 series airplanes, which limited the airplanes to Jet A type fuels. The correction, as published, limited the applicability to Boeing Model 737-300 series aircraft equipped with Plessey Type 8240 Mark 1, 2, or 3 fuel boost pumps; however, the applicability statement should also have included TRW 10-60533-1 fuel boost pumps. This reissued correction to AD T85-11-52 includes the TRW pumps in the applicability statement. Effective date March 13, 1986. (51 FR 7433, March 4, 1986.)

14 CFR Part 39 -- Boeing Model 747 Series Airplanes

This amendment adds a new airworthiness directive (AD) which requires inspection of the forward engine mount nuts for adequate self-locking capability, on Boeing Model 747 series airplanes equipped with Rolls-Royce engines. This action is prompted by a recent report of inadequate self-locking capability of some nuts. This action is necessary since inadequate self-locking capability of these nuts, if not corrected, could result in separation of the engine from the airplane. Effective date March 24, 1986. (51 FR 7434, March 4, 1986.)

14 CFR Part 39 -- Boeing Model 727 Series Airplanes

This amendment adds a new airworthiness directive (AD) that requires periodic inspections of the forward lavatory drain system and corrective action, if necessary, on all Boeing 727 airplanes. This action is necessary because ice formed by leaking drain systems, when it releases from the airplane, can cause damage to or loss of an engine. Effective date April 14, 1986. (51 FR 7767, March 6, 1986.)

14 CFR Part 39 -- McDonnell Douglas Model DC-10-10, -10F, -15, -30, -30F, -40, and KC-10A (Military) Series Airplanes

This amendment adopts a new airworthiness directive (AD) which requires modification of anti-skid valve assemblies on the main landing gear and centerline gear on McDonnell Douglas DC-10 and KC-10A (Military) series airplanes. This AD is prompted by reports of failures of anti-skid valve assembly end cap screws which, if not corrected, could result in fluid loss from the affected hydraulic system when the brakes are applied. This AD is necessary to minimize the potential for reduced braking capability. Effective date April 21, 1986. (51 FR 8480, March 12, 1986.)

14 CFR Part 39 -- Boeing Model 747 Series Airplanes

This amendment adds a new airworthiness directive (AD) which requires inspection for adequate self-locking capability of the nuts that support the nacelle strut attach fittings on Boeing Model 747 series airplanes, and replacement, if necessary. This action is prompted by a recent report of inadequate self-locking capability of some nuts. This action is necessary since inadequate self-locking capability of these nuts, if not corrected, could result in separation of the engine from the airplane. Effective date March 31, 1986. (51 FR 8479, March 12, 1986.)

14 CFR Part 39 -- Boeing Model 767 Series Airplanes

This amendment adds a new airworthiness directive (AD), applicable to all Boeing Model 767 airplanes, which requires the inspection of the pneumatic system 8th stage check valve, and repair or replacement of the valve, as necessary. This action is prompted by reports of fragments of failed valves becoming lodged in other pneumatic system components, by reports of engine damage caused by ingested valve fragments, and by reports of cracked valves which have been removed from service. This condition, if not corrected, could cause engine shutdown, engine damage, or damage to the pneumatic system. Effective date April 1, 1986. (51 FR 8792, March 14, 1986.)

14 CFR Part 39 -- Boeing Model 767 Series Airplanes

This amendment adopts a new airworthiness directive (AD) applicable to Boeing Model 767 series airplanes, equipped with certain PICO, Inc., emergency evacuation slides, which requires inspection of those slides to ensure integrity of air chamber seams. This AD is prompted by reports of seam separation discovered during scheduled emergency evacuation slide inspections. This condition, if uncorrected, would result in deflation of the air chambers of the slide tubes and possible collapse of the evacuation slide, jeopardizing the successful evacuation of the airplane. Effective date April 15, 1986. (51 FR 10537, March 27, 1986.)

14 CFR Part 39 -- Boeing Model 747 Airplanes

This action revises and publishes in the Federal Register and makes effective 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 Boeing Model 747 airplanes equipped with General Electric CF6 engines by individual telegrams. The AD requires inspection and, if necessary, clearing of the engine strut drain lines. The AD is prompted by reports of fire caused by accumulated fuel. The AD is being revised to clarify the modification effectivity and requirements. Effective date April 18, 1986. (51 FR 10820, March 31, 1986.)

14 CFR Part 39 -- Boeing Model 747 Series Airplanes

This amendment adds a new airworthiness directive (AD) which requires inspection of the forward lug of the inboard pylon upper link for cracks on certain Boeing Model 747 airplanes, and repair or replacement, as necessary. This action is prompted by recent reports of failure of the forward lug end of the upper link. This action is necessary since this condition, if not corrected, could result in separation of an engine from the airplane. Effective date May 8, 1986. (51 FR 10821, March 31, 1986.)

FEDERAL HIGHWAY ADMINISTRATION

49 CFR Part 394 -- Notification and Reporting of Accidents

Section 206 of the Motor Carrier Safety Act of 1984 directs the Secretary of Transportation to reissue regulations pertaining to commercial motor vehicle safety. Pursuant to this provision, the FHWA is amending Part 394 of the Federal Motor Carrier Safety Regulations (FMCSR's) by revising those sections relating to the notification and reporting of accidents. This amendment raises the reporting

threshold for property damage accidents from the present \$2,000 to \$4,200. In addition, under the accident reporting criteria, the definition of "bodily injury" is clarified for reporting purposes. The FHWA is further clarifying the reporting requirements under Part 394 by addressing the instances when an accident report was not timely filed, because a carrier was unaware of the accident at the time or was unaware that it was reportable. These revisions will reduce the accident reporting burden on motor carriers and clarify reporting requirements. Effective date January 1, 1986. (51 FR 6121, February 20, 1986.)

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

49 CFR Part 573 -- Defect and Noncompliance Reports

The purpose of this final rule is to amend 49 CFR Part 573 - *Defect and Noncompliance Reports*, to delete certain reporting requirements for motor vehicle or motor vehicle equipment manufacturers conducting a defect or noncompliance notification campaign. Under this rule, motor vehicle manufacturers no longer have to submit, in the third quarterly report to the agency, the vehicle identification number (VIN) for each vehicle for which corrective measures have not been completed. Other quarterly report information requirements are also deleted or clarified, based on the agency's experience since 1974 with this portion of the defect and noncompliance reports. Effective date January 6, 1986. (51 FR 397, January 6, 1986.)

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

This notice amends the air brake hose adhesion test of Federal Motor Vehicle Safety Standard No. 106, *Brake Hoses*. The adhesion test is included in FMVSS No. 106 to assure that the various layers of an air brake hose do not separate in service. The test measures the force required to separate adjacent layers of a brake hose. This rule amends the standard to exclude the force levels recorded during the initial and final 20 percent of the testing from the calculation of adhesion value. The agency believes that those data should be excluded because they can be artificially influenced by variables other than the actual adhesion of the brake hose layers. This rule also changes the test apparatus used to measure adhesion value. The new apparatus, a tension-type machine, is more widely used by test laboratories than the pendulum-type apparatus currently referenced in the standard, and provides more valid and consistent data.

This rulemaking action commenced in response to a petition for rulemaking submitted by the B.F. Goodrich Company. Effective date July 7, 1986. (51 FR 603, January 7, 1986.)

49 CFR Part 543-- Petitions for Exemptions From the Vehicle Theft Prevention Standard

This notice is issued under Title VI of the Motor Vehicle Information and Cost Savings Act. The title provides that passenger motor vehicle manufacturers may petition the agency for an exemption from the vehicle theft prevention standard for passenger motor vehicle lines whose standard equipment includes an antitheft device which this agency determines is likely to be as effective in deterring and reducing vehicle thefts as would compliance with the parts marking requirement of the standard.

This notice sets forth procedures to be followed by manufacturers in preparing and submitting any such petitions. It also sets forth procedures which the agency will follow in processing those petitions and determining whether they should be granted.

This notice establishes these procedures as an interim final rule for the 1987 model year. In a separate notice published elsewhere in today's Federal Register, the agency is proposing that these same procedures be adopted as final for the 1988 and subsequent model years. Effective date January 7, 1986. (51 FR 706, January 7, 1986.)

49 CFR Part 571 -- Child Restraint Systems

This rule amends Standard No. 213, *Child Restraint Systems*, by requiring all child restraints equipped with tether straps (other than child harnesses, booster seats, and restraints designed for use by physically handicapped children) to pass the 30 miles per hour (mph) test with the tether strap unattached. This change is being made because survey results consistently show that, in the vast majority of instances, child restraints with tether straps are used by the public without attaching the tether strap to the vehicle. This amendment will ensure that children riding in child restraints with unattached tethers will be afforded crash protection equivalent to that afforded to children riding in child restraints designed without a tether.

This rule also eliminates the requirement that those child restraints pass a 20 mph test with the tether unattached. Since those restraints will now be required to pass the 30 mph test under the same test conditions, it is unnecessary for those restraints to also be tested at a lower speed.

Finally, this rule clarifies two items of information required to be included in the instructions accompanying child restraints. These clarifications do not alter the amount of information that must be included in the instructions; they simply explain what the agency intended to require. Effective date August 12, 1986. (51 FR 5335, February 13, 1986.)

49 CFR Part 571 -- Federal Motor Vehicle Safety Standards; Lamps, Reflective Devices and Associated Equipment

This notice amends Safety Standard No. 108 to allow a manufacturer to provide an enhanced upper beam in Type F headlamp systems by wiring the lower beam headlamp to be activated simultaneously with the upper beam headlamp.

Type F headlamps feature identical aiming and seating planes, with the intention that re-aiming will not be necessary when a correctly aimed Type F headlamp is replaced with another Type F. The standard is also amended to provide that each half of the system may be aimed simultaneously if the manufacturer chooses (aiming the lower beam headlamp would automatically re-aim the upper beam lamp), but in order to permit this option, the re-aim tolerance of $\frac{1}{4}$ degree for photometric performance compliance will not be permitted for the upper beam headlamp in the Type F system.

This rule is based upon comments to a notice of proposed rulemaking published on May 13, 1985. The agency also proposed, but is not adopting the proposal that Type F lamps be permitted to have an auxiliary filament in the lower beam lamp to be used for purposes other than upper or lower beam performance. Effective date April 18, 1986. (51 FR 9454, March 19, 1986.)

49 CFR Parts 571 and 585 -- Federal Motor Vehicle Safety Standards

On April 12, 1985, NHTSA issued a notice proposing a number of amendments to Standard No. 208, *Occupant Crash Protection*. Based on its analysis of the comments received in response to that notice, the agency has decided to take the following actions: Retain the oblique crash test for automatic restraint equipped cars, adopt some New Car Assessment Program test procedures for use in the

standard's crash tests, provide in the standard for a due care defense with respect to the automatic restraint requirement, and require the dynamic testing of manual lap/shoulder belts in passenger cars. This notice also creates a new Part 585 that sets reporting requirements regarding compliance with the automatic restraint phase-in requirements of the standard. Effective date May 5, 1986. (51 FR 9800, March 21, 1986.)

23 CFR Part 1208 -- National Minimum Drinking Age

This rule clarifies the provisions which a State must incorporate or have incorporated into its laws in order to prevent the withholding of a portion of its Federal-aid highway funds for noncompliance with the National Minimum Drinking Age. This rule implements section 6 of Pub L. 98-363. Effective date March 26, 1986. (51 FR 10376, March 26, 1986.)

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

49 CFR Part 175 -- Implementation of the ICAO Technical Instructions

This document amends the Hazardous Materials Regulations to permit batteries with a net weight in excess of 50 pounds, intended as items of replacement for batteries installed in an aircraft, to be transported in an inaccessible manner aboard an aircraft. This amendment is published in response to a petition for reconsideration submitted by the Air Transport Association of America (ATA) in response to amendments published on December 2, 1985, under Docket No 184C. Effective date February 4, 1986. (51 FR 4368, February 4, 1986.)

49 CFR Parts 106, 107, 171, 172, 173, 174, 175, 176, 177, and 178 -- Transportation 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 petitions from industry and initiation with the Department. This action is necessary to update the regulations, to eliminate the need for a DOT approval, and to reduce RSPA's backlog of rulemaking petitions.

The amendments in this rulemaking are intended primarily to reduce government regulation and paperwork, and to clarify existing regulations. Effective date March 20, 1986. (51 FR 5968, February 18, 1986.)



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.

Major/Minor Injury - (1) injuries requiring hospitalization; (2) injuries involving second or third degree burns; (3) injury-related lost time at work of one or more days such as would be caused by inhalation of strong, irritating vapors are classified as major injuries. All other reported injuries are considered minor.

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 (1) an event that involves the release of gas from a pipeline or of liquefied natural gas or gas from an LNG facility resulting in a death, or personal injury necessitating in-patient hospitalization; or estimated property damage, including cost of gas lost, of the operator or others, or both, of \$50,000 or more; (2) an event that results in an emergency shutdown of an LNG facility; or (3) an event that is significant, in the judgement of the operator, even though it did not meet the criteria of (1) or (2).

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)

Casualty - A fatality or injury in accordance with SIRAS thresholds.

Casualty Report - A SIRAS report containing specific information on individual casualties (fatalities or injuries) submitted to UMTA by rail transit systems on a monthly basis, when applicable.

Collision With Obstacle - A SIRAS train accident type involving the collision of a rail transit revenue train with obstacles (e.g., shopping carts, foreign objects, etc.) other than trains and persons.

Collision With Person - A SIRAS train accident type involving the collision of a rail transit revenue train with a person on a track or platform.

Collision With Other Train - A SIRAS trains accident type involving the collision of a rail transit revenue train with another rail transit train (e.g., revenue or non-revenue train, work train, etc.).

Derailment - A SIRAS train accident type involving a rail transit revenue train's leaving the rails

Fatality - A death confirmed within 30 days after an incident which occurs under the train accident, fire and casualty thresholds.

Fire - A fire incident involving the phenomenon of combustion manifested in light, flame and heat.

Fire Report - A SIRAS report containing specific information on individual fires (station fires, train in revenue service fires, and right-of-way) submitted to UMTA by rail transit systems on a monthly basis, when applicable.

Train Accident - An event involving one or more trains resulting in any casualty or property damage in accordance with SIRAS thresholds.

Train Accident Report - A SIRAS report containing specific information on individual trains accidents (collisions with trains, collisions with obstacles, collisions with persons, derailments, or rail-highway crossings) submitted to UMTA by rail transit systems on a monthly basis, when applicable.

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.