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Airport Crash/Fire/Rescue (CFR) Service Cost and Benefit Analysis Volume II: Appendixes

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APPENDIX A.

NATIONAL CFR EQUIPMENT INVENTORY

The National CFR Equipment Inventory listed on the following pages was obtained from Airport Operations Manuals and Operations Specifications located at the various FAA Regional Offices throughout the country. The data are presented alphabetically by region (Central through Western Regions) and alphabetically within each region by state as indicated in the heading that precedes each state's list of equipment. Airports are ordered alphabetically within each state according to the city in which the airport is located.

For each airport a site number corresponding to that used in the official FAA airport certification list is indicated along with the city and airport names, the three-character (and in a few instances four-character) airport identifier, and the appropriate airport CFR index. Indexes A, AA, B, C, D, and E have been explained in the text of the report. "L" indicates that the airport holds a limited certificate. "S" and "U" indicate that the airport conducts scheduled or unscheduled air carrier operations, respectively, and that the CFR index has been assigned accordingly.

Following the line containing airport information is either the list of CFR equipment at the airport or a line of remarks or, in some cases, both. The remarks line generally indicates that the airport CFR service is provided by the military, that it holds a limited certificate, or that inadequate information was provided by the available Operations Manual or Operations

Specification. In such cases, the equipment inventory is generally omitted for reasons explained in the text.

The equipment list appears as one line for each piece of CFR equipment maintained at an airport. On each line there is a vehicle number which corresponds to the vehicle number shown in the applicable Operations Manual; if this number was not given in the manual, a numerical sequence beginning with vehicle "1" is used. Next, a CFR station number is listed. This number is always "1" unless there is more than one fire station at an airport, in which case the stations are numbered in sequence according to the CFR vehicles that they house. Generally, only Index D and E airports have more than one CFR station.

Following the station number is a vehicle type description. "QR" refers to a quick response vehicle, "P/U" to pickup truck, and "4WD" to four-wheel drive. Most other terms are self-explanatory or familiar to those who deal regularly with CFR equipment. The vehicle description is followed by the manufacturer's name, the year of manufacture of the vehicle, and its current condition as reported in the appropriate manual. If this information is not provided in the manual, it appears as a blank field in the inventory list. Condition is limited to the categories excellent, good, fair, and poor.

The next information provided is the number of professional firefighters and the number of auxiliary personnel assigned to each vehicle as indicated in the manuals. After this appears the reported response time for each vehicle in seconds.

The remaining data concern the vehicle's firefighting capabilities. These data include the number of gallons of water carried, the maximum expulsion rate of the water or water/foam mixture in gallons per minute, the number of gallons of aqueous film-forming foam (AFFF) concentrate carried, the number of pounds of dry chemical carried, the maximum expulsion rate of the dry chemical in pounds per second, the number of gallons of protein foam concentrate carried, and finally the number of pounds of carbon dioxide carried in extinguishers.

An inventory of equipment at non-certificated airports is not included because of the small number of such airports in the United States. An estimate of the number of such airports and the type of equipment they maintain is made in Chapter 2 of the report.

CENTRAL REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN IOWA

SITE NO.	CITY	AIRPORT	STA	TYPE	MANUFACTURER	YR	CON	PPD	AUX	PFS	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
5471. BURLINGTON																	
1	1	WATER/FOAM				78	G	1	0	1A0	1000	420	135	0	0	0	20
2	1	OR			ANSUL	74	G	0	1	160	50	50	3	450	5	0	20
5484. CEDAR RAPIDS																	
1	1	OR			PIECE	0	G	1	0	160	0	0	0	900	0	0	0
2	1	H-1500			OSHKOSH	0	G	1	0	160	1500	800	180	20	0	0	0
3	1	H-1500			OSHKOSH	0	G	1	0	160	1500	800	180	20	0	0	0
4	1	CFR			AMERICAN LAFRANCE	0	F	0	0	0	1500	0	0	0	0	300	0
5490. DES MOINES																	
1	1	H-1500			OSHKOSH	75	E	2	0	120	1500	800	180	20	0	0	0
2	1	CFR			WALTERS	75	F	1	0	120	500	250	100	500	9	0	0
3	1	H-1500			OSHKOSH	74	G	2	0	0	1500	800	180	20	0	0	0
5497. DUBUQUE																	
1	1	PICKUP			DODGE	76	E	0	2	140	100	50	6	470	5	0	20
2	1	H-1000			OSHKOSH	76	E	0	2	160	1050	420	135	0	0	0	0
5499. FORT DODGE																	
1	1	OR			ANSUL	74	G	0	1	120	50	50	1	450	5	0	20
6164. HASON CITY																	
1	1	OR			ANSUL	79	G	0	1	150	50	50	1	470	5	0	20
2	1	OR, ANSUL			JEEP	0	E	0	1	180	0	0	0	300	5	0	0
3	1	TANKEP				0	F	0	0	0	2000	250	0	0	0	0	0

CENTRAL REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN IOWA

SITE NO.	CITY	AIRPORT	TO	INDEX	YR	CON	POD	AUX	RES	WATER	PAYE	APFF	DAY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE														
6254.	OTTUMWA	OTTUMWA INDUSTRIAL	OTH	AS												
1	1	OR	74	E	0	2	165	100	60	E	470	0	0	0	20	
		FIRE BOSS														
6341.	SIoux CITY	SIoux CITY MUNI	SUX	NS												
1	1	OR	75	E	2	0	135	100	60	E	470	0	0	0	20	
2	1	CFR	75	G	1	0	150	1500	600	150	0	0	0	0	0	
		DYNAC														
		WATERLOO														
6432.	WATERLOO	WATERLOO MUNI	ALO	NS												
1	1	PICKUP	73	E	1	0	120	100	50	E	470	0	0	0	20	
2	1	CFR	73	E	0	0	145	1500	0	150	0	0	0	0	150	20
		YANKEE WALTER														

CENTRAL REGION
 CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN KANSAS

SITE NO.	CITY	AIRPORT	IN	INDEX	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
6557.	DODGE CITY	DODGE CITY MUNI		AS												
1	1	1-LION CHEVROLET	72	G	0	1	100	100	50	5	470	8	0	0	0	20
6621.	GARDEN CITY	GARDEN CITY MUNI		GCK	AS											
8-1	1	OR STRUCTURAL	74	G	0	2	100	50	50	1	470	5	0	0	0	20
R-2	1	INTERNATIONAL	54	F	0	2	0	500	0	0	0	0	0	0	0	0
6612.	GOOGLAND	RENNER FLD/GOOGLAND MUNI		GLD	AS											
1	1	OR FIRE BOSS	76	E	0	1	100	100	50	6	470	8	0	0	0	20
6616.	GREAT BEND	GREAT BEND MUNI		GND	AS											
1	1	OR FIRE BOSS	74	E	0	1	100	100	50	6	470	8	0	0	0	20
6650.	HAYS	HAYS MUNI		HYS	AS											
ENG. 2	1	PUMPER/SKID	36	G	0	1	0	250	35	6	450	9	0	0	0	20
	1	OR ANSUL	75	G	0	1	100	100	50	6	470	5	0	0	0	20
6645.	HUTCHINSON	HUTCHINSON MUNI		HUT	AS											
1	1	OR FIRE BOSS	74	G	2	0	100	100	60	6	450	8	0	0	0	20
6700.	KANSAS CITY	FAIRFAX MUNI		KCK	LU											
1	1	OR FIRE BOSS	69	G	2	0	120	500	250	100	450	8	0	0	0	20

CENTRAL REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN KANSAS

SITE NO.	CITY	AIRPORT	MANUFACTURER	YO	CON	PPD	AUX	PFS	WATER	PATE	AEFF	DRY	RATF	FOAM	CO2
VEHICLE	STA	TYPE													
6729. LINDSAL															
1	1	OR	FIRE BOSS	73	E	1	0	150	50	50	0	470	0	0	20
6748. MANHATTAN															
1	1	OR	FIRE BOSS	74	E	0	2	140	100	50	6	470	0	0	20
6814. PARSONS															
1	1	OR	TRI CITY	74		0	1	130	100	60	6	470	5	0	20
6878. SALINA															
E-31	1	OR	SALINA MUNI	77	E	2	0	140	100	60	6	470	5	0	20
C-31	1	STRUCTURAL/CFR	FIRE BOSS	79	G	2	0	140	1250	1000	150	40	3	0	40
S-31	1	510 PUMPER	FORO	71	G	0	0	0	400	500	0	0	0	40	200
U-31	1	PICKUP	FORO	54	G	0	0	0	0	0	0	0	0	0	0
6912. TOPERA															
			FORBES FIELD												
6975.4 WICHITA															
1	1	OR	WICHITA PIO-CONTINENT	73	G	2	0	130	100	60	6	470	5	0	20
2	1	CFR	ANSUL	73	E	2	0	150	1500	800	140	0	0	0	0
3	1	CFR	OSHKOSH	73	E	2	0	150	1500	800	140	0	0	0	0
6979. WICHITA															
			MC CONNELL AFB												

REMARKS - ABC EQUIPMENT. 4 CFS PERSONNEL PER SHIFT PROVIDED

REMARKS - MILITARY FACILITY.

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MISSOURI.

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CENTRAL REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MISSOURI

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRD	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	74	E	0	2	120	100	60	6	470	0	0	20		
11834.	KIRKSVILLE	CLARENCE CANNON MEMORIAL	IPK	AS												
1	1	OR	FIRE ROSS													

12074. ST JOSEPH ROSEGRANS MEMORIAL STJ LU

REMARKS - LIMITED CERTIFICATE. CFR EQUIPMENT OWNED BY ANG. MAINTAINED BY CITY.

ST LOUIS	STL	DS
12077.	LANGBERT-ST LOUIS INTL	
41	STATION WAGON	
42	CHEVROLET	
43	ANSUL	
44	OSHKOSH	
45	CENTRAL	
46	WALTERS	
47	WALTERS	
48	WALTERS	
49	EMERGENCY VAN	

SPRINGFIELD	SGF	NS
12139.	SPRINGFIELD MUNI	
FZ-1	OR, ANSUL SKID	
FZ-2	CFF	
FZ-3	CFF	

CENTRAL REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEBRASKA

SITE NO.	CITY	AIRPORT	IO	INDEX	VP	CON	PRO	AUX	RES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE														
12597.		ALLIANCE														
1	1	OR			75	G	0	1	0	100	60	6	450	0	0	20
		FIRE BOSS														
12674.		CHADRON														
1	1	OR			75	E	0	1	0	0	0	0	520	5	0	20
		ANSUL														
126A1.		COLUMBUS														
1	1	OR			76	G	0	1	0	100	50	6	470	5	0	20
		ANSUL														
12743.		GRAND ISLAND														
1	1	OR			73	G	0	1	0	50	50	3	470	8	0	20
		FIRE BOSS														
12755.		HASTINGS														
1	1	OR			74	G	0	1	0	50	50	3	470	8	0	20
		FIPE BOSS														
12743.		KEARNEY														
		KEARNEY MUNI														
12794.		LINCOLN														
RED 1	1	OR			74	G	1	0	120	0	0	0	500	0	0	20
RED 7	1	H-1500			76	G	2	0	140	1500	800	180	0	0	0	20
ENGINE 15	1	P-12			74	G	0	0	0	750	750	0	5	0	0	20
7	1	P-10			70	G	0	0	0	0	0	0	0	0	0	20
8	1	H-1500			77	G	2	0	140	1500	800	180	0	0	0	20
		OSHKOSH														

REMARKS - SURRENDERED CERTIFICATE EFFECTIVE 12-1-79.

CENTRAL REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEBRASKA

SITE NO.	CITY	AIRPORT	INDEX	YR	CON	PPO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE	MANUFACTURER												
1280A.	MCCOOK		MCCOOK MUNI												
1	1	OR	ANSUL	75	G	1	0	120	100	50	6	470	5	0	20
12816.	NORFOLK		KARL STEFAN MEMORIAL												
1	1	OR	ANSUL	0	E	0	1	120	50	50	3	470	5	0	20
12842.	NORTH PLATTE		LEE BIRD FIELD												
1	1	OR	FIRE BOSS	74	G	0	2	130	50	50	3	470	8	0	20
1285A.	OMAHA		EPPLEY AIR FIELD												
1	1	OR	ANSUL	57	G	2	0	160	50	50	3	470	5	0	20
2	1	GFR	YANKEE WALTER	61	G	2	0	180	1500	950	300	30	0	0	0
3	1	GFR	WALTERS	73	E	2	0	180	3000	1500	500	30	3	0	0
12915.	SCOTT'S BLUFF		SCOTT'S BLUFF COUNTY												
1	1	OR	FIRE BCSS	74	E	1	2	120	500	250	100	470	8	0	20
12927.	SIDNEY		SIDNEY MUNI												
1	1	OR	FIRE BOSS	74	E	0	1	100	50	50	3	470	8	0	20

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN DELAWARE

SITE NO.	CITY	AIRPORT	TO	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	AFEE	QTY	RATE	FOAM	CO2
2999.	WILMINGTON	GREATER WILMINGTON	ILG	AU												

REMARKS - SERVICE BY ANC

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN DISTRICT OF COLUMBIA

SITE NO.	CITY	AIRPORT	INDEX	YR	CON	PPO	AUX	RES	WATER	RATF	APFF	DRY	RATE	FOAH	CO2
VEHICLE	STA	TYPE	MANUFACTUREP												
3001.	WASHINGTON	WASHINGTON NATIONAL	DCA	CS											
RED 113	1	OP	DODGE	74	G	2	0	0	100	1000	0	0	450	3	0
RED 117	1	CFB	WALTERS	73	G	3	0	0	2500	1294	0	0	0	0	500
RED 118	1	CFR	WALTERS	63	F	3	0	0	2500	1294	0	0	0	0	500
RED 119	1	CFB	WALTERS	63	G	1	0	0	3000	1400	0	0	0	0	500
RED 120	1	CFB	WALTERS	63	G	1	0	0	3000	1400	0	0	0	0	500
RED 114	1	CHIEF'S VEHICLE	CHEVROLET	71	G	0	0	0	0	0	0	0	0	0	0
RED 115	1	PUMPER	AMERICAN LAFRANCE	70	G	3	0	0	500	1500	0	0	0	0	0
RED 116	1	PUMPER	AMERICAN LAFRANCE	63	F	2	0	0	500	1500	0	0	0	0	0
RED 121	1	MOBILE STAIRS	FORD	64	G	0	0	0	0	0	0	0	0	0	0
RED 122	1	FIRST AID	FORD	66	G	0	0	0	0	0	0	0	0	0	0
RED 123	1	AMBULANCE	FORD	75	E	2	0	0	0	0	0	0	0	0	0

SITE NO.	CITY	AIRPORT	INDEX	YR	CON	PPO	AUX	RES	WATER	RATF	APFF	DRY	RATE	FOAH	CO2
VEHICLE	STA	TYPE	MANUFACTUREP												
3032.	WASHINGTON	DULLES INTL	IAO	ES											
213	1	OR. ANSUL	DODGE	62	E	2	0	0	170	0	0	0	0	0	0
217	1	FOAH	YANKEE HALTER	62	E	3	0	0	235	1500	0	0	0	0	0
218	1	FOAH	YANKEE HALTER	62	E	3	0	0	240	1500	0	0	0	0	0
219	1	NURSE	YANKEE HALTER	63	E	1	0	0	3000	1500	0	0	0	0	0
220	1	NURSE	YANKEE HALTER	63	E	1	0	0	3000	1500	0	0	0	0	0
225	1	PUMPER	AMERICAN LAFRANCE	62	E	1	0	0	500	1500	0	0	0	0	0
216	1	PUMPER	AMERICAN LAFRANCE	62	E	2	0	0	500	1500	0	0	0	0	0

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW JERSEY

SITE NO.	CITY	AIRPORT	INDEX	YR	CON	PPO	AUX	PES	WATER	RATF	AEFF	DRY	RATE	FOAM	GOP
VEHICLE	STA	TYPE	MANUFACTURER												
13437.	ATLANTIC CITY	NAFEC ATLANTIC CITY	ACY	AU											
CREW 6	1	CFR	HALTERS	52	1	0	0	0	1500	1060	0	0	0	200	0
CREW 8	1	CFR	WALTERS	62	1	0	0	0	1500	1060	0	0	0	200	0
CREW 9	1	QIV	FIRE-X	78	1	0	0	0	500	200	100	500	0	0	0
CREW 12	1	PUMPER	WARD LAFRANCE	63	2	0	0	0	500	750	0	0	0	0	0
CREW 15	1	PUMPER	WARD LAFRANCE	63	1	0	0	0	500	750	0	0	0	0	0
CREW 5	1	PICKUP	DODGE	76	1	0	0	0	0	0	0	0	0	0	0
CREW 4	1	AMBULANCE	CHEVROLET	78	1	0	0	0	0	0	0	0	0	0	0
4	1	CFR	OSIKOSH	75	1	0	0	0	1500	1200	100	0	0	0	0

14052.	NEWARK	NEWARK INTL	ENR	ES											
5602	1	LIGHT RESCUE, 010	WALTERS	76	6	2	0	0	0	129	125	900	19	0	0
2	1	LIGHT RESCUE, 010	WALTERS	76	6	2	0	0	0	129	125	900	19	0	0
5671	1	CFR, F10	CHUBB	76	6	2	1	0	0	3750	1800	0	0	442	0
4	1	CFR, F10	CHUBB	76	6	2	1	0	0	3750	1800	0	0	442	0
5	1	CFR, F10	CHUBB	76	6	2	1	0	0	3750	1800	0	0	442	0
6	1	CFR, F10	CHUBB	76	6	2	1	0	0	3750	1800	0	0	442	0

14349.	TEYERBORO	TEYERBORO	IEB	AU											
251	1	CFR	INTERNATIONAL	78	6	2	0	60	0	250	500	1000	8	0	0

14366.	TRENTON	MERCER COUNTY	TTN	AAU											
343	1	PICKUP	FORD	72	F	1	0	0	0	0	0	0	0	0	0
342	1	CFR	WALTERS	69	F	1	0	114	3000	1000	0	30	0	500	20
345	1	CFR	FORD	74	G	0	0	90	0	220	0	15	0	120	15
346	1	OR	DODGE	65	F	2	0	94	0	0	0	1015	4	0	20
348	1	PUMPER	GREAT EASTERN	79	G	1	0	90	2400	1500	0	60	500	200	15

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW YORK

SITE NO.	CITY	AIRPORT	ID	INDEX											
VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	RATE	AFFE	DRY	PATE	FOAM	CO2
14789.	ALBANY	ALBANY COUNTY	ALB	CS											
E-1	1	LIGHT RESCUE	1	1	1	1	1	150	0	0	0	300	0	0	0
E-2	1	CFR	1	1	1	1	1	150	1500	900	0	0	0	150	0
E-4	1	CFR	1	1	1	1	1	210	600	60	0	0	0	40	0
E-5	1	CFR	1	1	1	1	1	150	1500	900	150	0	0	0	0
E-6	1	LIGHT RESCUE	1	1	1	1	1	150	50	60	1	450	50	0	0
E-7	1	TANKER	1	1	1	1	1	210	1500	0	0	0	0	0	0
14904.	DUNHAMTON	BROOME COUNTY	BGH	BS											
2	1	OP. FIRE BOSS	1	0	0	0	0	180	200	250	25	500	0	0	0
1	1	CFR FIRE-X	1	0	0	0	0	180	1500	650	0	0	0	300	0
11	1	DRY, ANSUL	1	0	0	0	0	180	0	0	0	0	10	0	300
14354.	BUFFALO	GREATER BUFFALO INTL	BUF	CS											
4	1	CFR	1	0	0	0	0	74	3900	1000	0	60	0	500	0
5	1	CFR	1	0	0	0	0	74	2500	1000	0	0	0	500	0
6	1	DRY	2	0	0	0	0	58	0	0	0	1000	0	0	0
3	1	CFR	1	0	0	0	0	74	750	500	0	0	0	35	30
15203.	PLATICA	ERUNG COUNTY	ELH	BS											
6	1	BRONCO ESCORT	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1	PONER WAGON	0	0	0	0	0	190	0	0	0	500	5	0	0
10	1	CFR	0	0	0	0	0	190	1500	800	90	0	0	0	0
1	1	AMERICAN LAFRANCE	0	0	0	0	0	190	500	200	0	0	0	30	0
15236.	FARMINGDALE	REPUBLIC	FPG	LU											
REMARKS - LIMITED CERTIFICATE. NO GFE EQUIPMENT AT THE AIRPORT.															

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW YORK

SITE NO.	CITY	AIRPORT	IO	INDEX										
VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	HAIRP	RATE	APPE	DRY	RATE	FOAM	COP

15309. GLENS FALLS WARREN COUNTY CFL LU

REMARKS - LIMITED CERTIFICATE. NO OFF EQUIPMENT AT THE AIRPORT.

15411. ISLIP LONG ISLAND MAC ARTHUR ISP 8S

FR1	1	CFR	ANSUL	7	E	1	0	71	200	500	12	1350	0	0
FR2	1	CFR	INTERNATIONAL	71	E	1	0	77	1500	750	150	0	0	0
FR3	1	CFR	WALTERS	64	G	0	1	109	2000	300	0	0	60	0
FR4	1	CFR	DODGE	74	E	0	1	54	50	0	3	350	0	0

15445. ITHACA TOMPKINS COUNTY ITH 8S

7	1	POWER WAGON	DODGE	56	E	0	2	160	250	350	40	0	0	0
10	1	1-TON	DODGE	75	E	0	2	160	94	50	6	450	0	0
12	1	900 1500	WALTERS	77	E	0	2	180	1500	800	180	0	0	0

15491. JAMESTOWN CHAUTAUGUA COUNTY JHR AU

1	1	PUMPER	FORQ	72	E	0	1	0	1000	1000	0	20	0	100
4	1	3/4 TON	CHEVROLET	76	E	0	1	0	50	0	0	450	0	0
5	1	4X4	FORQ	63	E	0	1	0	200	0	0	20	0	100

15647. MASSENA RICHARDS FIELD HSS LU

REMARKS - LIMITED CERTIFICATE. NO OFF EQUIPMENT AT THE AIRPORT.

15713.11 MONTICELLO SULLIVAN COUNTY INTL HSV AU

A-2	1	400/ANSUL	GHC	70		0	1	180	100	60	6	450	5	0
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EASTERN REGION

CRASH/LIFE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW YORK

SITE NO.	CITY	AIRPORT	ID	INDEX	YEAR	CON	PRO	AUX	PES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	PES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2	

15752.	NEW YORK	STEWART	SHF	AU											
1	1	CH 1000	71	G	1	0	120	3000	1500	500	0	0	0	0	0
2	1	OR, ANSUL 440	70	G	1	0	90	188	180	12	1350	25	0	0	0
3	1	RUMAY FOAMER	73	G	2	0	150	5000	620	0	0	0	500	0	0
4	1	TANKER	68	F	0	0	0	1500	500	0	0	0	0	0	0
5	1	200 CUSTOM, 4X4	72	G	1	0	0	0	0	0	20	0	0	0	15
6	1	PUMPER, 750A	55	F	0	0	0	1975	750	0	20	0	0	0	15

15784.31	NEW YORK	WORLD TRADE CENTER HELISTOP	SHV1	AU											
1	1	ANSUL	0	G	2	0	0	50	60	3	450	5	0	0	0
2	1	WHEELED CART	0	G	1	0	0	0	0	0	150	4	0	0	0
3	1	WHEELED CART	0	G	0	0	0	0	0	0	150	4	0	0	0
4	1	ANSUL	0	G	0	0	0	0	0	0	150	4	0	0	0

15794.4	NEW YORK	DOWNTOWN-MANHATTAN	JRB	AS
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REMARKS - NO INFORMATION AVAILABLE.

0.	CALVEFTON	PECONIC RIVER PLANT	LU
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REMARKS - LIMITED CERTIFICATE. HANDWRITTEN ENTRY TO JANUARY CERTIFICATED AIRPORT LIST.

15793.	NEW YORK	JOHN F. KENNEDY INTL	JFK	ES											
1	1	E-77	72	G	2	1	246	7000	2210	0	0	0	700	0	0
2	1	O-5	0	G	1	0	0	50	94	0	0	0	0	0	0
3	1	F-40	0	G	2	1	0	3750	1000	0	0	0	442	0	0
4	2	F-40	74	G	2	1	160	3750	1000	0	0	0	442	0	0
5	2	O-10	67	G	2	1	192	125	126	0	0	0	0	0	0
6	2	B-36	0	G	0	0	0	0	0	0	0	0	0	0	0
7	2	O-6C	0	G	1	0	0	5450	600	0	0	0	0	0	550

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW YORK

SITE NO.	CITY	AIRPORT	ID	INDEX										
VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2

1611A. SCHEMECTADY SCHEMECTADY COUNTY SCH LU

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

16263.	SYRACUSE	SYRACUSE HANCOCK INTL	SYR	CS										
PESQUE 1	1	BLAZER, 4ND	72	E	1	0	67	0	0	0	0	0	0	0
RESCUE 2	1	CHEVROLET INTERNATIONAL	70	E	1	0	87	200	0	12	1500	13	0	15
RESCUE 3	1	CFF	72	E	1	0	123	3000	1500	500	0	0	0	0
PESQUE 5	1	TANNER	52	G	1	0	0	5000	1000	550	0	0	0	0
RESCUE 4	1	CFF	74	E	0	0	123	3000	1500	500	0	0	0	0

16334.	UTICA	ONEIDA COUNTY	UCA	AAS										
162	1	CFF	66	G	0	5	90	1000	1500	100	0	0	0	0
167	1	TANKEP	50	F	0	1	90	2500	750	0	0	0	0	0
169	1	LIGHT RESCUE	66	G	0	3	80	0	0	0	500	0	0	0

16367. WATERTOWN WATERTOWN NEW YORK INTL ART LU

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

1643A.	WESTHAMPTON BEACH	SUFFOLK COUNTY	FOK	LU
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REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

16433.	WHITE PLAINS	WESTCHESTER COUNTY	HPN	AS										
11	1	CFF	70	G	2	0	115	200	100	12	1500	15	0	0

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN PENNSYLVANIA

SITE NO.	CITY	STA	TYPE	AIRPORT	YR	CÓN	PRO	AUX	PES	HATEP	RATE	APFF	DRY	RATE	FOAM	COP	
				MANUFACTURER													
19671.	ALLENTOHN			ALLENTOHN-BETHLEHEM-EASTON					ARE	CS							
1	1	CFR, JFG		HALTERS	64	G	1	0	0	1000	620	0	20	0	150	20	
2	1	CFR, HF		HALTERS	73	F	1	0	0	950	590	0	20	0	200	40	
3	1	CFR, CD		HALTERS	73	E	1	0	0	3000	1750	0	20	0	500	0	
4	1	TWIN AGENT		HALTERS	74	E	1	0	0	500	300	100	500	0	0	20	
5	1	TANKER		GMC	62	F	0	0	0	1900	400	0	20	0	0	0	
6	1	UTILITY JEEP		BOYER	43	F	0	0	0	0	0	0	40	0	0	225	

19685.	ALTOONA			ALTOONA-BLAIR COUNTY					AOO	AU							
1	1	CFR		INTERNATIONAL	75	G	2	0	0	0	0	999	40	0	0	0	

19905.	BRADFORD			BRADFORD REGIONAL					RFD	AAS							
1	1	TWIN AGENT		HARD LAFARCE	0		0	2	0	500	0	0	150	0	100	0	

20155.	ERIE			ERIE INTL					ERI	BS							
7	1	CFR		HALTERS	0		0	0	0	500	0	100	500	0	0	0	
8	1	CFR		HALTERS	0		0	0	0	1000	0	200	65	0	0	0	

20420.	FRANKLIN			CHESSE-LAMBERTON					FKL	LU							
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.																	

20502.	HARRISBURG			CAPITAL CITY					CXY	LU							
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.																	

20640.	JOHNSTOWN			JOHNSTOWN-CAMPIA COUNTY					JST	AU							
1	1	INT/ANSUL		INTERNATIONAL	74	E	0	1	60	0	200	200	1350	999	0	0	

EASTERN REGION

CRASH/LIB/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN PENNSYLVANIA

STATION NO.	CITY	AIRPORT	ID	INDEX
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VEHICLE	STA	TYPE	YR	CON	PPD	AUX	RFS	WATER	PATE	APFF	DRY	RATE	FOAM	CO2
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LANCASTER

LANCASTER

LANCASTER

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

LANCASTER

WESTMORELAND COUNTY

LANCASTER

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

HICOLETOWN

HARRISBURG INTL ARPT-CLMSTED FLD

CS

1	CFF	73	E	3	0	0	3000	1500	500	0	0	0	0	0
2	HAGRIH	73	E	0	0	0	200	160	12	1750	25	0	0	0
4	PICKUP	75	F	0	0	0	0	0	0	0	0	0	0	20
5	CFF, MONG	76	F	0	0	0	1500	0	300	0	0	0	0	0

PHILADELPHIA

PHILADELPHIA INTL

OS

F1	CFF	72	G	3	0	135	3000	1640	0	0	0	0	500	0
F2	CFF	72	G	2	0	141	3000	1840	0	0	0	0	500	0
F3	TWIN AGENT	72	G	3	0	105	400	250	38	1500	25	0	0	0
F4	ALLIED	64	G	1	0	165	2600	750	0	0	0	0	400	0
F5	NURSE	63	G	1	0	155	2300	750	0	0	0	0	400	0
F6	CFF	75	G	4	0	150	3000	1500	0	0	0	0	500	0
F7	CFF	66	G	2	0	140	0	0	0	1000	10	0	0	0
F9	PUMPER	76	G	1	0	150	300	500	0	0	0	0	700	0
9	CFF	62	G	0	0	0	1500	750	0	0	0	0	300	0

PHILADELPHIA

NORTH PHILADELPHIA

LU

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

PHILADELPHIA

WIO-STATE

LU

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN PENNSYLVANIA

SITE NO.	CITY	AIRPORT	INDEX
VEHICLE	STA TYPE	HANUFACTURER	YR CON PPO AUX PES WATER PAIF AFFE OPY RATE FOAM CO2
21791.	WILLIAMSPORT	WILLIAMSPORT-LYCOMING COUNTY	IPT AS
1	CFB	CHEVROLET	1 100 500 350 6
1	CFB	INTERNATIONAL	1 100 500 300 150

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN VIRGINIA

SITE NO.	CITY	STA	TYPE	AIRPORT	YR	CON	PDO	AUX	RES	WATER	RATE	DIFF	DRY	RAIF	FOAM	CO2
25666.	CHARLOTTESVILLE			CHARLOTTESVILLE-ALBEHARLE												
1		1	OR	ANSUL	69	E	0	1	0	200	100	12	1350	25	0	0
2		1	CFP	WALTERS	76	E	1	0	0	1500	600	180	0	0	0	90

25633. CHINCOTEAGUE ISLAND NASÁ WALLCPS FLIGHT CENTER MÁL LU
REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

25725.	DANVILLE			DANVILLE MUNI												
1		1	CFR, ANS-HAG 480	ANSUL	70	E	0	5	120	200	180	12	1350	0	0	0
25830.	HOT SPRINGS			INGALLS FIELD												
11		1	CFR, ANS-HAG 480	ANSUL	0		0	0	0	200	180	12	1350	0	0	0

25863.	LYNCHBURG			LYNCHBURG MUNI-FRESTON GLENN FIELD LYH												
1		1	ANS-HAG 480	ANSUL	70	E	0	1	45	200	180	12	1350	25	0	0

25882. HELFA ACCOMACK COUNTY HFV LU

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

SITE NO.	CITY	STA	TYPE	AIRPORT	YR	CON	PDO	AUX	RES	WATER	RATE	DIFF	DRY	RAIF	FOAM	CO2
25897.	NEWPORT NEWS			PATRICK HENRY INTL AIRPORT												
1		1	CFP	FORC	61	G	2	3	120	50	60	3	500	25	0	0
2		1	CFC	INTERNATIONAL	69	F	2	3	120	200	180	12	1350	25	0	0
3		1	CFR	WALTERS	76	E	1	3	120	1500	600	300	0	0	0	0
4		1	CFP	WALTERS	76	E	1	2	120	1500	600	300	0	0	0	0
5		1	CFP	INTERNATIONAL	61	F	1	2	140	2000	900	4	0	0	0	0

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN VIRGINIA

SITE NO.	CITY	AIRPORT	ID	INDEX
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VEHICLE	STA	TYPE	MANUFACTUREF	YR	CON	PRO	AUX	RES	WATER	PATE	AFFF	DRY	RATE	FOAM	CO2
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25901. NORFOLK NORFOLK NAS CHAMBERS FIELD NGU AU

REMARKS - MILITARY FACILITY.

25905. NORFOLK NORFOLK INTL ORF CS

1	1	LIGHT HEIGHT	DODGE	65	G	0	0	0	100	60	6	1090	0	0	30
2	1	LIGHT HEIGHT	HILLYS	58	F	0	0	0	0	0	0	1060	0	0	0
3	1	CFR	HALTERS	75	E	0	0	0	3000	1800	500	0	0	0	0
6	1	CFR	WARD LAFRANCE	70	E	0	0	0	1000	750	150	60	0	0	0
7	1	CFR	WARD LAFRANCE	56	F	0	0	0	1000	750	60	0	0	0	0

25977. RICHMOND RICHARD EVELYN DYRD INTL PIC CS

15	1	CFR	YANKEE HALTER	66	E	3	0	169	2500	1180	250	0	0	250	0
17	1	CFP	YANKEE HALTER	74	E	2	0	142	1500	600	150	0	0	0	0
19	1	CFP	YANKEE HALTER	74	E	1	0	137	500	400	50	500	0	0	0

25986. ROANOKE ROANOKE PUNI/WOODRUM ROA NS

1	1	CFR	ANSUL	72	G	1	0	120	200	0	12	1350	0	0	0
2	1	CFR	HALTERS	58	G	1	0	165	950	450	0	0	0	200	0
3	1	CFP	HALTERS	59	G	1	0	165	950	450	200	0	0	0	0
4	1	CFP	OSKOSH	77	E	1	0	120	1500	450	0	0	0	200	0
5	1	OR	HILLYS	59	G	2	0	165	0	0	0	1030	0	0	0

26022.1 STAUNTON/HAYNE/HAFRISONG SHENOAH VALLEY SHD AS

21	1	MODEL 1700/HAG 400	INTERNATIONAL	70		0	1	180	200	180	12	1350	25	0	0
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26043.11 VIRGINIA BEACH OCEANA NAS (SOUCEK FIELD) NTU AU

REMARKS - MILITARY FACILITY.

EASTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN WEST VIRGINIA

SITE NO.	CITY	AIRPORT	MANUFACTUREP	YR	CON	PRO	AUX	PES	WATER	PATE	AEFF	DRY	RATF	FOAM	COP
VEHICLE	STA	TYPE													

RALFIGH COUNTY MEMORIAL			BKH			AS									
26523.	DECKLEY	1	OR	73	E	0	2	100	100	60	6	450	0	0	0

MEPCEP COUNTY			DLF			AS		
26516.	GLUFFIELD							

REMARKS - NO INFORMATION AVAILABLE.

KANAWHA			CRM			RS									
26575.	CHAPLESTON	1	CFR	46	G	0	0	180	400	200	40	150	3	0	150

BENEDUH			CKB			AS									
26592.	CLARKSBURG	1	CFR	76	G	0	2	0	550	30	30	40	0	0	40

TRI-STATE/WALKEP-LONG FIELD			HTS			AS		
26691.	HUNTINGTON							

REMARKS - NEED FIG. 12 FOR OPERATIONS MANUAL FOR DESCRIPTION

GREENGRIER VALLEY			LWD			AS									
26713.	LEHISBURG	1	OR, J3500	66	G	0	2	180	0	0	0	500	0	0	0

HORGANTOWN MUNI/HALTEP HART FLD			HGH			AS									
26769.	HORGANTOWN	1	CHASSIS/FIRE BOSS	75	0	0	1	0	50	0	3	480	0	0	30

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ILLINOIS

STATION NO.	CITY	AIRPORT	YR	CON	PPO	AUX	PES	WATER	PAYE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE	MANUFACTUREP											
4372.	ALTON	CIVIC MEMORIAL												
21	1	LOADSTAR 1700	INTERNATIONAL	63	0	0	0	0	0	0	0	0	0	0
22	1	3/4 TON CFF	CHEVROLET	52	0	0	0	0	0	0	0	0	0	0
4411.	BLOOMINGTON-NORHAL	BLOOMINGTON-NORHAL												
CRASH 3	1	OR	LUFERNE	0	1	0	0	500	250	30	300	0	0	0
ENGINE 3	1	TANKER		0	0	0	0	500	0	0	0	0	0	0
RESCUE 3	1	AMBULANCE/FESQUE		0	0	0	0	0	0	0	0	0	0	0
4477.	CARONDALE/HURPHYSBORO	SOUTHERN ILLINOIS												
1	1	FORCEABLE ENTRY	DODGE	53	6	0	1	90	0	0	150	5	0	30
2	1	OR	FORD	64	6	0	1	120	0	0	500	5	0	40
4494.	CHAMPAIGN/UPONA	UNIVERSITY OF ILL-WILLAPO												
FIRE 3	1	OR	ANSUL	69	6	1	0	150	200	240	12	1350	10	0
FIRE 4	1	LIGHT RESCUE JEEP	ANSUL	52	6	0	1	0	0	0	300	10	0	0
FIRE 4	1	HONEL 750A PUMPER	HARD LAFRANCE	55	6	0	0	0	300	0	30	0	0	0
FIRE 2	1	CRASH	OSHKOSH	75	6	2	0	0	1500	1150	160	0	0	0
4504.	CHICAGO	MERFILL C HEIGS												
6-2-1	1	CRASH	INTERNATIONAL	67	6	2	0	60	175	100	20	750	0	0
6-2-4	1	CRASH	INTERNATIONAL	67	6	1	0	60	175	100	20	750	0	0
6-2-7	1	CRASH	INTERNATIONAL	0	6	1	0	60	250	100	20	750	0	0
6-3-3	1	CARDOX	FORD	0	6	1	0	60	0	0	0	0	0	999
4507.	CHICAGO	CHICAGO MIDWAY												
G321	1	CRASH	WALTERS	60	6	2	0	0	1500	1000	0	0	0	280
G310	1	CRASH	OSHKOSH	73	6	2	0	0	1500	1000	140	0	0	0
G311	1	FIRE BOSS	INTERNATIONAL	67	6	2	0	0	200	100	0	750	100	0
B312	1	CHIEFS STA WAGON	CHEVROLET	74	6	2	0	0	0	0	0	0	0	0

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ILLINOIS

SITE NO.	CITY	AIRPORT	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE	MANUFACTURER												
4503.	CHICAGO	CHICAGO-O'HARE INTL													
10		PUMPER/NURSER	FHO	73	4	0	0	0	750	1250	0	0	0	0	0
3-7-3		AERIAL TRUCK	SEAGRAVE	64	4	0	0	0	200	0	0	0	0	0	0
1-5-2		ROOSTER	DODGE	70	2	0	0	0	250	0	20	0	0	15	0
6-3-1		HOB STAIRWAY APP	FORD	67	1	0	0	0	0	0	0	300	0	0	0
6-3-2		CHEM TRK 2 (SI-BY)	DODGE	63	2	0	0	0	0	0	0	1000	0	0	0
6-3-5		TANKER	STUDEBAKER	52	2	0	0	0	1000	60	0	0	0	30	0
6-5-1		CRASH	OSHKOSH	73	2	0	0	70	1000	1260	130	1000	0	0	0
6-5-4		CRASH (SI-BY)	HARD LAFRANCE	64	2	0	0	0	2500	1000	0	0	0	500	0
6-5-5		CRASH	YANKEE WALTER	55	2	0	0	0	3000	1000	0	0	0	500	0
A-16		AMBULANCE	CHEVROLET	75	2	0	0	0	0	0	0	0	0	0	0
6-5-10		CRASH (CB3000)	YANKEE WALTER	74	2	0	0	107	3000	1500	500	0	0	0	0
6-5-6		CRASH	OSHKOSH	72	2	0	0	106	1000	420	130	1000	0	0	0
6-3-3		AMBULANCE	CADILLAC	71	0	0	0	0	0	0	0	0	0	0	0
ENG-12		PUMPER	SEAGRAVE	0	0	0	0	0	1250	750	0	0	0	0	0
6-5-7		CRASH	OSHKOSH	72	2	0	0	144	1000	420	130	1000	0	0	0
ENG-9		PUMPER/NURSER	SEAGRAVE	75	0	0	0	0	1250	750	0	0	0	0	0
A-26		AMBULANCE	CHEVROLET	75	0	0	0	0	0	0	0	0	0	0	0
6-5-11		CRASH (CB3000)	YANKEE WALTER	74	2	0	0	176	3000	1500	500	0	0	0	0

4562.1	DANVILLE	VERPILION COUNTY													
1		ANSUL J-3407 JEEP	JEEP	0	0	0	0	0	100	0	6	450	0	0	0
2		0-11-A FOAM TRUCK		0	0	0	0	0	1000	0	0	0	0	0	0

4564.	DECATUR	DECATUR													
ENG 7		PUMPER	HONE	60	0	0	0	0	0	1000	0	0	0	0	0
RESCUE 1		DRY CHEMICAL	DODGE	71	0	1	0	0	0	0	0	0	0	0	0
RESCUE 2		CRASH	OSHKOSH	70	0	1	0	0	1500	1150	100	0	0	0	0

4667.1	GALESBURG	GALESBURG MUNI													
1		PUMPER/SKID MOUNT		0	0	0	0	0	800	0	3	450	0	0	20

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ILLINOIS

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRO	AUX	RES	WATER	PATE	AFFE	DRY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE	MANUFACTURER													

4773.1	KANKAKEE		GREATER KANKAKEE					IKK	LU							
1		INTL SCOUT			0	0	0	0	0	0	0	0	0	0	0	100
2		FIRE TRUCK			0	0	0	0	0	500	0	0	0	0	0	0

4850.	MARION		WILLIAMSON COUNTY					HWA	AAS							
1		OR			0	0	0	0	180	500	0	100	300	0	0	0
5																

4958.1	MATTOON-CHAPELSTON		COLES COUNTY MEMORIAL					HYO	AAS							
1		FOAM/DRY CFR			0	0	0	0	0	500	0	30	300	0	0	0
2		ANSUL JEEP DRY CH JEEP			0	0	0	0	0	0	0	0	300	0	0	0

4964.	HOLINE	QUAC CITY	HLI	CS
1	M-1500	OSHKOSH	2	0
2	H-1500	OSHKOSH	2	0
3	DRY CHEM	ANSUL	1	0
4	FOAM TRUCK		1	0
5	CFR	WALTERS	0	0

4991.	HT VERNON		HT VERNON-OUTLAND					HVN	AAS							
M-14	1	INTL MODEL 1700			75	E	0	0	0	500	0	0	300	0	100	0

4998.	PEORIA		GREATER PEORIA					PIA	BS							
ENGINE 1	1	H-1500			0	0	0	0	0	0	0	0	0	0	0	0
ENGINE 2	1	OR			0	0	0	0	0	0	0	0	0	0	0	0
RESCUE 1	1	RESCUE TRUCK			0	0	0	0	0	0	0	0	0	0	0	15
RESCUE 2	1	RESCUE/RAHP PATROL			53		0	0	0	0	0	0	0	0	0	0

~~CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ILLINOIS~~

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GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN INDIANA

SITE NO.	CITY	AIRPORT	ID	INDEX	TP	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE	HANUFACTURER													

5090.1	ANDERSON	ANDERSON MUNI														
1	1	DRY CHEMICAL			0	0	0	0	0	0	0	0	300	0	0	0

5126.	BLOOMINGTON	MONROE COUNTY														
1	1	1000 GAL PUMPER	FORO	70	E	2	23	1A0	1000	450	25	0	2	0	0	0
2	1	240 GAL PUMPER	INTERNATIONAL	71	E	2	0	1A0	240	80	0	0	0	0	0	0
3	1	1000 GAL TANKER	GMC	52	G	2	0	1A0	1000	60	0	0	0	0	0	0
4	1	275 GAL BRUSH	DOUGL	52	G	2	0	1A0	275	60	0	0	0	0	0	0
5	1	300 GAL ANSUL	WILLYS	50	G	2	0	1A0	300	150	0	0	0	0	0	0
97	1	FIRE AND CRASH	INTERNATIONAL	75	E	0	0	1A0	950	0	0	200	0	0	0	0
98	1	FIRE AND CRASH	WALTERS	62	G	0	0	1A0	950	0	0	0	0	0	0	0

5192.	COLUMBUS	COLUMBUS BARCLAY MUNI														
			BAK													

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

5240.	ELKHART	ELKHART MUNI														
			EKM													

REMARKS - NO CFP.

5257.	EVANSVILLE	EVANSVILLE DRESS REGIONAL														
RESCUE 1	1	HD-1003	OSHKOSH	74	E	1	0	0	1000	0	130	240	0	0	0	0
RESCUE 2	1	HALF-TON FORT	FORO	67	E	1	0	0	0	0	0	1000	0	0	0	0
RESCUE 3	1	5300-AFFF	HARD LAFRANCE	53	E	1	0	0	400	0	24	150	0	0	0	0
RESCUE 4	1	WATER TANKER		0	E	1	0	0	2000	0	0	0	0	0	0	0

5262.	FORT WAYNE	FORT WAYNE MUNI/DIAEF FLD														
			FNA													
1	1	C/R PACHUN 400	ANSUL	70	E	4	0	0	160	290	12	1350	25	0	0	30
2	1	CRASH/FIRE	OSHKOSH	76	E	4	0	0	100	850	100	0	0	0	0	0
3	1	CRASH/FIRE	OSHKOSH	76	E	1	0	0	1A0	1500	100	0	0	0	0	0
4	1	PUMPER	FORO	40	E	4	0	0	150	500	0	0	0	0	0	0
5	1	EMERG/AMBULANCE	YANKEE WALTER	75	E	4	0	0	0	0	0	30	0	0	0	30

GREAT LAKES REGION
CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN INDIANA

SITE NO.	CITY	TYPE	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX
INDIANAPOLIS														
5175.	INDIANAPOLIS	INDIANAPOLIS INT												
23	1	CB3000 CRASH AFFF	68	E	2	37	0	10	20	15	0	0	0	0
23	1	H-1500 CRASH AFFF	74	E	2	0	120	1500	1000	160	0	0	0	0
24	1	H-1500 CRASH AFFF	74	E	2	0	120	1500	1000	160	0	0	0	0
25	1	P280V QUICK DASH	74	E	1	0	90	0	0	0	1000	0	0	0
PURDUE UNIVERSITY														
5512.	LAFAYETTE	PURDUE UNIVERSITY												
609	OPAVO	10,000 GVM AND	0		0	0	160	100	0	6	1000	0	0	0
DELAWARE COUNTY-JOHNSON FLD														
5511.	HUNCIE	DELAWARE COUNTY-JOHNSON FLD												
1	1	660	76		0	0	0	500	0	100	300	0	0	0
2	1	PICK-UP	76		0	0	0	0	0	0	350	0	0	0
GRISWOLD AFB														
5575.	PEPU	GRISWOLD AFB												
REMARKS - MILITARY FACILITY:														
MICHIANA REGIONAL														
5661.	SOUTH BEND	MICHIANA REGIONAL												
SAFETY 12	1	YR	74	E	1	0	100	1500	500	250	0	0	0	0
SAFETY 11	1	TANKER	68	E	1	0	120	2000	500	0	0	0	0	0
SAFETY 14	1	3/4 TON AND	75	E	1	0	60	0	0	0	600	5	0	30
HULMAN FIELD														
5659.	TERRE HAUTE	HULMAN FIELD												
HFAA 1	1	INC-LIVERIE	74	E	1	0	60	500	360	100	300	31	0	20
HFAA 2	1	RESCUE	74	E	0	0	60	0	0	0	100	0	0	20

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MICHIGAN

SITE NO.	CITY	AIRPORT	ID	INDEX										
VEHICLE	STA	TYPE	YO	CON	PRO	AUX	PES	WATER	RATE	APFF	DRY	RATE	FOAM	G02

9515.1 ALMA GPATTOI COMMUNITY AMN LU

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

9516. ALPENA PHELPS COLLINS APN AAS

REMARKS - SERVICE BY ANG. 12 P-4 UNITS.1

9540. BATTLE CREEK M K KELLOGG REGIONAL DTL AU

1	SK450-00	SKID UNIT	ANSUL	0	0	0	0	50	0	3	450	0	0	0
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9562. DELLAIPE ANTRIM COUNTY ACD LU

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

9566. GENTON HAPDCP ROSS FIELD REN AS

1				75	G	1	0	0	50	50	0	450	0	0
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9725. DETROIT DETROIT CITY DET AS

1	CFR WITH TURRET	AMERICAN LAFRANCE	61	E	1	0	150	1000	750	125	0	0	0	400
2	QUICK DASH, HAGNUP	ANSUL	69	E	1	0	150	250	0	0	150	15	0	0

9749. DETROIT DETROIT HET WAYNE COUNTY DTH ES

1	CFR, ZC-00	YANKEE WALTER	76	E	1	0	140	500	450	100	500	10	0	0
2	CFR, CB-2500	YANKEE WALTER	64	G	1	0	145	2500	1000	500	0	0	0	0
3	CFR, CB-2500	YANKEE WALTER	64	G	1	0	145	2500	1000	500	0	0	0	0
4	CFR, CB-2500	YANKEE WALTER	64	G	1	0	151	3000	1000	500	0	0	0	0
5	ENGINE PUMPER	FHO	55	P	1	0	157	150	750	0	0	0	0	0
6	MINI PUMPER	FORD	70	G	1	0	150	200	250	0	0	0	0	0
11	RESCUE AMBULANCE	SUPERIOR AMBULANCE	75	E	1	0	150	0	0	0	0	0	0	0

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MICHIGAN

[illegible][illegible]

	909	FLINT	BISHOP	FNY	CS	
M-500	1		OSKOSH	75	0	0 08
H-500	1		OSKOSH	75	0	0 00
OYER	1		CHEVROLET	60	0	0 00
T-4 TON TRUCK	1		INTERNATIONAL	0	0	0 00
WALKER	1			0	0	0 00
						2 00

9874. GAYLORD OTSEGO COUNTY CLR LU
DENABES - LIMITED CERTIFICATE. NO CEE EQUIPMENT AT THE AIRPORT.

PERHAPS - LIMITED CERTIFICATE. NO CEE EQUIPMENT AT THE AIRPORT.

[illegible]

9071.02	CHINA	K.I. SANYEP AFD	SAH	AN
REMARKS - MILITARY FACILITY.				

REMARKS - MILITARY FACILITY:

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MICHIGAN

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
9881.	HANCOCK		HOUGHTON COUNTY MEMORIAL	CHX	AAS											
1	1	FLEXTRAG/FIRE-X	CANADAIR	0	0	0	0	0	0	500	0	60	300	0	0	0
9962.	IRON MOUNTAIN/KINGSFORD	FORD	INT	BS												
1	1	4WD CFR	INTERNATIONAL	0	1	0	0	0	0	500	250	150	300	0	0	0
9968.	IRONHOOD		GOGEBIC COUNTY	IND	AS											
1	1	4WD CFR	ANSUL	74	0	0	0	0	0	50	0	3	450	0	0	0
9977.	JACKSON		JACKSON COUNTY-REYNOLDS FIELD	JXN	AS											
1	1	1-TON 4X4 IH/FIREX	INTERNATIONAL	74	G	1	0	0	0	50	50	3	450	250	0	30
9986.	KALAMAZOO		KALAMAZOO MUNI	AZO	BS											
8-909	1	QR, FORD/ANSUL 440	FORD	68	E	0	1	120	100	50	6	450	5	0	15	
10010.	LANSING		CAPITAL CITY	LAN	BS											
1	1	IH 1700/FIRE BOSS	INTERNATIONAL	0	2	0	161	700	400	150	36	0	0	0	30	
2	1	IH R196 FWD/PUMPER	INTERNATIONAL	0	2	0	161	500	0	40	300	0	0	0	0	
10049.	HANISTEE		HANISTEE CO.-BLACKER	HBL	AS											
1	1	4WD CFR	ANSUL	0	0	0	0	0	0	50	0	3	450	0	0	0

GRAND LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MICHIGAN

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRO	AUX	PES	WATER	PATE	ATFF	DRY	PATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
10064.	MARQUETTE		MARQUETTE COUNTY	MOI	BS											
1	1	MODEL ZC00	WALTERS	1	0	180	500	0	0	300	0	0	0	0	0	0
10083.	MENOMINEE		MENOMINEE-MARINEITE TWIN COUNTY	HNH	AS											
1	1	4WD CPO	ANSUL	0	1	2	0	100	0	6	450	0	0	0	0	0
2	1	3/4 TON PICKUP	ANSUL	72	0	0	50	0	0	450	0	0	0	0	0	0
10127.	MUSKEGON		MUSKEGON COUNTY	HKG	AAS											
1	1	CPO	WALTERS	75	E	2	210	1000	400	110	0	0	0	0	0	0
2	1	OR	INTERNATIONAL	74	G	2	210	0	0	0	500	3	0	0	0	0
10218.	CELLSIOH		EMMET COUNTY	PLN	AAS											
1	1	4WD CPO	INTERNATIONAL	0	0	1	150	500	0	120	300	0	0	0	0	0
10232.	PONTIAC		OAKLAND-PONTIAC	PTK	AU											
A3	1	3/4 TON PICKUP	GMC	74	0	1	180	50	0	3	540	0	0	0	0	0
A4	1	3/4 TON PICKUP	GMC	63	0	1	0	0	0	0	690	0	0	0	0	0
A5	1	PUMPER	CHEVROLET	42	0	0	0	400	500	0	0	0	0	0	0	0
4	1	4WD CPO	WALTERS	0	0	0	0	1500	0	180	0	0	0	0	0	0
10299.	SAGINAW		TRI CITY	HRS	CS											
1	1	C16-100 AFG	YANKEE WALTER	64	0	0	0	1000	400	0	0	0	0	0	0	0
2	1	CPO	WALTERS	75	1	0	0	1500	500	140	0	0	0	0	0	0
3	1	ZC00 03	WALTERS	76	1	0	0	500	400	100	500	15	0	0	0	0

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MICHIGAN

SITE NO.	CITY	AIRPORT	MANUFACTURER	VEHICLE STA	TYPE	YR	CON	PRO	AUX	RES	WATER	RATE	AFFE	DRY	RATE	FOAM	CO2
10329.	SAULT STE MARIE	CHIPPEWA COUNTY INTL															
1	1	OR. M-440				0	0	0	0	0	50	0	3	450	0	0	0
2	1	P-4 (NO DESCRIPTION)				0	0	0	0	0	0	0	0	0	0	0	0
10379.	TRAVERSÉ CITY	CHERRY CAPITAL															
1	1	CR4-500/500 20	HALTERS			76	0	0	0	0	500	400	110	450	0	0	0

GREAT LAKES REGION

CRASH/FIRE/PEESQUE EQUIPMENT INVENTORY FOR AIRPORTS IN MINNESOTA

SITE NO.	CITY	AIRPORT	ID	INDEX	VEHICLE	STA	TYPE	YR	CON	PPO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
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10512.	ALEXANDRIA	ALEXANDRIA MUNI	AXN	LU	REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.														
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10546.	BEHIOJI	BEHIOJI MUNI	BJI	AAS															
1	1	CFR, M-1000	0	1	0	150	1000	0	130	150	0	0	0	0	0	0	0	0	0

10576.	BRAINERD	BRAINERD-CROWN WING/HIELAND FLD	BRD	AS															
1	1	4WD P/U. SKID	75	0	0	0	100	0	6	450	0	0	0	0	0	0	0	0	0

10653.	DULUTH	DULUTH INTL	DLH	CS	REMARKS - SERVICE BY USAF														
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10668.01	ELY	ELY MUNI	ELO	LU	REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.														
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10684.	FAIRBONT	FAIRBONT MUNI	FRM	AS															
1	1	CFR, M-1000	0	0	1	120	1000	0	120	300	0	0	0	0	0	0	0	0	0

10737.	WINGING	CHISHOLM-WINGING	HIB	AAS															
1	1	CFR, M-1000	0	0	0	0	1000	0	130	0	0	0	0	0	0	0	0	0	0

10749.	INTL FALLS	FALLS INTL	INL	AAS															
1	1	CFR, M-1000	75	E	2	0	180	1000	625	130	300	5	0	0	0	0	0	0	0

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MINNESOTA

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	PES	WATER	RATE	APPE	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE														

10812.1	MANKATO	MANKATO MUNI														
83	1	CFR	0	2	120	1000	500	0	60	0	100	200				
82	1	PICKUP	76	0	2	150	0	0	600	0	0	0				

MINNEAPOLIS																
MINNEAPOLIS-ST PAUL																
HSP																
ES																
10824.	MINNEAPOLIS															
RESCUE 8	1	LIGHT RESCUE	73	E	2	0	120	100	50	6	450	0	0	0	0	0
RESCUE 6	1	CFR, MODEL CB	65	G	2	0	100	2500	1200	500	0	0	0	0	30	0
RESCUE 7	1	CFR, MODEL CB	65	G	3	0	100	2500	1200	0	0	0	0	0	30	0
RESCUE 2	1	PUMPER	53	G	0	0	240	175	750	0	0	0	0	0	15	0
RESCUE 3	1	PUMPER	54	G	0	0	240	175	750	0	0	0	0	0	15	0
RESCUE 5	1	3 1/2 TON PICKUP	72	G	2	0	120	100	0	0	60	0	0	0	30	0
RESCUE 9	1	TANKER	73	G	2	0	240	4500	1250	500	60	0	0	0	0	0

ROCHESTER																
ROCHESTER MUNI																
RST																
CS																
10950.1	ROCHESTER															
1	1	LIGHT GASH, 440	69	E	0	2	180	100	69	6	450	5	0	0	0	0
2	1	M-1000	73	E	3	2	100	1000	625	130	0	0	0	0	0	0
3	1	M-1000	73	E	3	2	100	1000	625	130	0	0	0	0	0	0

ST CLOUD																
ST CLOUD MUNI																
STC																
LU																

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

ST PAUL																
ST PAUL COUNTCOWN HOLMAN FIELD																
STP																
LU																

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

THIEF RIVER FALLS																
THIEF RIVER FALLS REGIONAL																
TVF																
AAS																
11024.	THIEF RIVER FALLS															
1	1	M-1000	73	E	2	3	180	1000	625	130	300	5	0	0	0	0

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MINNESOTA

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	G02
VEHICLE	SIA	TYPE	MANUFACTURER													
11082.	WILLMAP		HILLMAR MUNI						ILL	LU						
REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.																
11098.	WINONA		WINONA MUNI/MAX CONRAD FIELD						ONA	LU						
REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.																
11104.	MORRINGTON		MORRINGTON MUNI						OIG	AS						
1	1	PICKUP/SKID			0	0	0	0	0	0	50	0	1	450	0	0

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN OHIO

SITE NO.	CITY	AIRPORT	INDEX	VEHICLE	SIA	TYPE	YR	CON	PRO	AUX	RES	WATER	PATF	APFF	DRY	RATE	FOAM	CO2
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17521.	AKRON	AKRON-CANTON REGIONAL	CAK	CS														
7		OSHKOSH	75	G	2	0	210	1000	750	130	90	0	0	0	0	0	0	0
8		OSHKOSH	75	G	2	0	210	1000	750	130	90	0	0	0	0	0	0	0
9		POWER WAGON	75	G	2	0	150	100	0	6	450	5	0	0	0	0	0	0

17524.	AKRON	AKRON FULTON MUNI	AKR	LU														
1		FORD	0		0	1	0	100	0	6	450	0	0	0	0	0	0	0

17731.	CINCINNATI	CINCINNATI MUNI APPT LUNKEN FLD	LUK	LU														
CRI		INTERNATIONAL	70	E	2	0	60	200	200	200	1350	0	0	0	0	0	0	15
ENG 36		AMERICAN LAFRANCE	70	E	2	0	60	500	100	30	60	0	0	0	0	0	0	15
ENG 18		AMERICAN LAFRANCE	70	E	2	0	60	500	100	30	60	0	0	0	0	0	0	15
WT36		DODGE	72	E	1	0	60	2000	0	0	0	0	0	0	0	0	0	0
LAD 3		LADDER	51	E	1	0	60	0	0	0	30	0	0	0	0	0	0	15
RES19		SEAGRAVE	73	E	1	0	60	0	0	0	0	0	0	0	0	0	0	5
BOAT 3		CHEVROLET	45	E	1	0	0	0	500	0	0	0	0	0	0	0	30	15

17746.	CLEVELAND	CLEVELAND-HOPKINS INTL	CLE	DS														
1		CHEVROLET	78		2	0	150	100	0	5	450	0	0	0	0	0	0	0
2		OSHKOSH	75		2	0	180	1500	1005	180	0	0	0	0	0	0	0	0
3		WALTERS	70		2	0	180	1500	0	0	0	0	0	0	0	0	0	0
4		CHEVROLET	75		2	0	180	0	0	0	0	0	0	0	0	0	0	0
5		INTERNATIONAL	58		1	0	300	3000	0	0	0	0	0	0	0	0	0	0

17756.	CLEVELAND	CUYAHOGA COUNTY	CGF	AU														
5		3/4 TON 4WD PICKUP	59	G	0	1	45	0	0	0	1000	10	0	0	0	0	0	0
10		DODGE	54	F	0	1	30	1000	250	100	0	0	0	0	0	0	0	200

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN OHIO

SITE NO.	CITY	AIRPORT	ID	INSTR	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													

BURKE LAKEFRONT

17757.	CLEVELAND															
49	1	OR	YANKEE WALTER	70	E	1	0	102	200	240	12	1330	25	0	0	0
50	1	OR	ANSUL	61	G	1	0	98	0	0	0	1060	7	0	0	30
20	1	OR	WALTERS	69	G	1	0	109	1500	700	0	0	0	0	120	30

OHIO STATE UNIVERSITY

17787.	COLUMBUS															
1	1	OR, 4HD	DODGE	53	G	5	10	90	100	60	6	450	5	0	0	100
11	1	STRUCTURAL PUMPER	GHC	68	G	5	10	90	500	1000	0	60	1	0	0	15

PORT COLUMBUS INTL

17738.	COLUMBUS															
348	1	CFR	WALTERS	77	G	1	0	145	1600	600	150	60	0	0	0	0
349	1	CFR	WALTERS	77	G	2	0	160	1600	600	150	60	0	0	0	0
190	1	CFR	WALTERS	59	F	1	0	150	1000	0	380	60	0	0	0	15
251	1	CFR, MODEL HF	WALTERS	59	F	1	0	150	950	1250	0	0	0	0	100	15
145	1	TANK WAGON	FORD	57	F	1	0	150	1600	400	0	0	0	0	0	0
261	1	RUNWAY FOMER	INTERNATIONAL	55	F	1	0	210	5500	500	0	0	0	0	500	0
276	1	PUMPER	SUTPHEN	67	G	1	0	0	500	1000	0	60	0	0	0	15
218	1	3/4 TON	DODGE	64	G	2	0	0	0	0	0	660	400	0	0	30

JAMES H COX DAYTON INTL

17815.	DAYTON															
20	1	OR		0		1	0	105	0	0	0	1000	0	0	0	0
21	1	PUMPER		0		1	0	180	0	1000	0	0	0	0	0	0
22	1	CFR		0		2	0	180	3000	0	500	0	0	0	0	0
23	1	CFR		0		1	0	180	3000	0	500	0	0	0	0	0
27	1	COMMAND POST		0		1	0	180	0	0	0	0	0	0	0	0
C-15	1	FIRST AID VEHICLE		0		1	0	180	0	0	0	0	0	0	0	0

17914. FINLAY

FINLAY

FDY LU

REMARKS - LIMITED CERTIFICATE. SERVICE BY MARATHON OIL COMPANY.

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN OHIO

SITE NO.	CITY	AIRPORT	YR	CON	PRO	AUX	RES	WATER	PATE	AFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER											

18106.1	LORAIN/ELYRIA/	LORAIN COUNTY REGIONAL		0	0	1	0	350	0	21	40	0	0	0
1	1	PUMPER												

18157.	MANSFIELD	MANSFIELD LAHM MUNI												

REMARKS - SERVICE BY ANG

18536.	SPRINGFIELD	SPRINGFIELD MUNI												

REMARKS - SERVICE BY ANG

18577.	TOLEDO	TOLEDO EXPRESS												
1	1	CFR	70	6	3	1	270	3000	1207	500	60	0	0	0
2	1	WALERS	64	6	3	1	180	0	0	0	1000	3	0	0
3	1	FORC	55	6	3	0	240	500	100	100	00	0	0	0
		SEAGRAVE												

18717.	WILMINGTON	WILMINGTON INDUSTRIAL AIRPARK												
1	1	4WD	0	0	0	0	0	0	0	0	1000	0	0	0

18753.	YOUNGSTOWN	YOUNGSTOWN MUNI												

REMARKS - SERVICE BY USAF RESERVE

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN WISCONSIN

SITE NO.	CITY	AIRPORT	TO	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
27013.	APPLETON	OUTAGAMIE COUNTY	ATH	LU	1	MODEL	HIP HOME-FRD	FORD	0	0	0	0	0	500	0	AS	450	0	50	0
27036.	BARABOO	BARABOO WISCONSIN BELLS	CO5	LU																
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.																				
27170.	EAU CLAIRE	EAU CLAIRE MUNI	EAU	BS	1	CFR	OSHKOSH	HACK	0	2	0	100	1000	0	130	0	0	0	0	0
2					2	CFR			0	2	0	100	500	0	30	700	0	0	0	0
27234.	GREEN BAY	AUSTIN-STRAUBEL FIELD	GRB	CS																
1					50		PUMPER	JOHN DEAN	1	0	0	0	750	500	0	350	0	40	150	
2					0		ANSUL	MAGNUM 440	1	0	0	0	100	0	6	450	0	0	0	
3					0		OSHKOSH		1	0	0	0	1000	0	130	0	0	0	0	
4					0		T6		0	0	0	0	0	0	0	0	0	0	0	
27272.	JANESVILLE	ROCK COUNTY	JVL	AS																
1					59	E		WALTERS	0	20	60	950	1500	0	0	0	0	200	0	
27304.	LA CROSSE	LA CROSSE MUNI	LSE	BS																
1					0				0	0	0	0	100	0	6	450	0	0	0	
2					0				0	0	0	0	1000	0	125	0	0	0	0	
27346.	HADISON	DANE COUNTY REGIONAL/TPCAUX FLD	MSN	CS																
RED 1		LIGHT RESCUE/440			74	G			1	0	0	94	94	60	6	450	0	0	0	
RED 2		P-4			75	E			2	0	0	115	1500	1200	180	0	0	0	0	
RED 3		H-1100			76	E			1	0	0	115	1500	1200	180	0	0	0	0	
RED 5		FOAMER (RESERVE)			63	G			0	0	0	0	1500	60	0	0	0	170	0	

GREAT LAKES REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN WISCONSIN

SITE NO.	CITY	AIRPORT	ID	INDEX										
VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	PATE	AFFF	DRY	RATE	FOAM	CO2

27349. MANITOWOC

1	1	PUMPER	53	0	0	100	0	1000	0	500	0	0	0	0
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27388. MILWAUKEE

GENERAL MITCHELL FIELD		MKE		OS									
AF-4	1	LIGHT RESCUE	61	G	2	0	105	0	0	1000	14	0	165
AF-1	1	CFR	65	G	1	0	135	2500	1345	500	60	0	0
AF-2	1	CFR	64	G	0	0	140	2000	750	250	30	0	0
AF-5	1	CFR	75	E	1	0	130	3000	2120	500	60	0	0

27406.11 MOSINEE

CENTRAL WISCONSIN

CENTRAL WISCONSIN		CHA		CS									
A	1	F250/ANS-HAG 470	66	0	1	0	94	60	6	750	5	0	0
0	1	H-1000	0	0	1	0	1000	625	130	0	0	0	0

27469. OSHKOSH

WITTAN FIELD

OSH

OS

7	1	OR	75	E	1	0	190	0	0	500	7	0	20
9	1	H-1000	75	E	2	0	100	1050	620	135	4	0	20

27524. RHINELANDER

RHINELANDER-ONEIDA COUNTY

AAS

1	1	H-1000	0	0	0	0	1000	625	130	0	0	0	0
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~~CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CONNECTICUT~~

SITE NO.	CITY	ATSPORT	ID	INDEX												
VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PBO	AUX	RCS	WATER	PATF	APFF	DRY	RAIE	FOAM	CO2	
2785.		ORINGEPORT	ICOR I. SIKORSKY HELI													
1	1	OR	HAGRUH 680	70	1	0	0	120	290	0	12	1350	0	0	0	0
			ANSUL													
2802.		DANNURY	DANNURY PUMI													
1	1		FORD	70	0	0	0	0	100	0	6	500	0	0	0	0
1	1		JEEP	67	0	0	0	0	0	0	0	300	0	0	0	0

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

[illegible]

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CONNECTICUT

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE														

2946. HINNSOP LOCKS

GRADLY INTL

COL DS

STATE 10	1	CFR	58	G	3	0	180	1000	400	120	0	0	0	0	0	0
STATE 11	1	FOAM/WATER	73	C	3	0	170	3000	1500	250	0	0	250	0	0	0
STATE 12	1	LOADSTAR 1700	69	G	3	0	170	200	180	12	1350	25	0	0	0	0
STATE 9	1	LT. RESCUE, 1210	71	G	2	0	165	0	0	0	700	10	0	0	0	0
STATE 7	1	TANK	62	F	2	0	0	4000	500	0	0	0	0	0	0	0

NEW ENGLAND REGION

CRASH/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MAINE

SITE NO.	CITY	AIRPORT	TO	INDEX										
VEHICLE	SIA	TYPE	YR	CCN	PRO	AUX	PES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2

7016.	AUBURN-LEH. STION	AUBURN-LEH. STION MUNI	LEH	AS										
RESCUE	1	PRIMARY RESPONSE	75	1	0	100	100	0	0	0	0	0	0	0

7019.	AUGUSTA	AUGUSTA STATE	AUG	LS										
RESCUE	1	LI. RESCUE	77	1	0	100	50	0	0	0	0	0	0	0

7025.	ORANGOP	ORANGOR INTL	ORGR	CS										
H-52	1	P-13	75	0	0	100	0	0	0	0	0	0	0	0
H-53	1	P-10	70	0	0	100	0	0	0	0	0	0	0	0
H-54	1	P-6 TRAILER	77	0	0	100	5000	1000	300	0	0	0	0	0
H-55	1	P-4	75	0	0	100	1500	1000	100	0	0	0	0	0
H-56	1	P-4	76	0	0	100	1500	1000	100	0	0	0	0	0
H-57	1	P-4	77	0	0	100	1500	1000	100	0	0	0	0	0
H-58	1	TANKER	72	0	0	100	1500	250	0	0	0	0	275	0

7029.	BAR HARBOR	HANCOCK COUNTY-DAP HARBOR	BAR	LU
REMARKS	LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.			

7049.	BIDDEFORD	BIDDEFORD MUNI	BID	LU
REMARKS	LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.			

7003.	CARIBOU	CARIBOU MUNI	CAR	LU
REMARKS	LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.			

7079.5	FRENCHVILLE	NORTHERN AFOOSTOOK REGIONAL	FVE	LU
REMARKS	LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.			

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MAINE

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRO	AUX	RES	WATER	PATE	APFF	DRY	PATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													

8034.	HOULTON	HOULTON INTL	HUI	LU													
			REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.														

8137.	MILLINOCKET	MILLINOCKET MUNI	MLT	LU													
			REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.														

8179.11	NORWAY	OXFORD COUNTY REGIONAL	81B	LU													
			REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.														

8191.	OLD TOWN	DEWITT FLD, OLD TOWN MUNI	OLD	U													
			REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.														

PORTLAND	PORTLAND INTL JETPORT	PMH	CS
RED 3	1 200	0	0 180 50
RED 1	1 C14 1500 BS06	0	0 180 1500
RED 2	1 C14 1500 BS06	0	0 180 1500

PRESQUE ISLE	NORTHERN MAINE REG ARPT AT P I	POI	AAS
1	1 PUMPER	0	0 0 500 0 110 350 0 0 0

8246.	ROCKLAND	KNOX COUNTY REGIONAL	PKD	LU													
			REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.														

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MAINE

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
6275.	SANFORD		SANFORD MUNI	SFP	LU											
6390.	WATERVILLE		WATERVILLE PORT LAFLEUR	HVL	AS											
1.	1	4WD POWER WAGON/SK	DOODGE	0	1	0	0	0	0	0	0	0	450	0	0	0

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MASSACHUSETTS

SITE NO.	CITY	AIRPORT	YR	CON	PPD	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO?
VEHICLE	STA	TYPE	MANUFACTURER											

8750.	SEDFORD	LAURENCE G HANSCOM FLD												
1	1	DRY CHEMICAL		0	1	0	0	0	0	0	1000	0	0	0

8778.	BOSTON	GENERAL EDWARD LAWRENCE LOGAN INTL	BOS	ES										
E-1	1	COMB. CFR	HAXIM	71	E	2	0	0	1000	400	220	1000	850	0
E-2	1	CFR, PATHFINDER	CHUBB	72	E	2	0	0	3600	1800	432	0	0	0
E-3	1	CFR, PATHFINDER	CHUBB	74	E	1	0	0	3600	1800	432	0	0	0
E-4	1	CFR, CB	WALTERS	63	F	1	0	0	2500	1200	0	0	0	0
E-5	1	CFR, BESEPEVE	HARD LAFRANCE	66	F	0	0	0	3000	1000	500	0	0	0
6	1	TANKER	FORD	72	G	1	0	0	2000	1000	0	0	0	0
H-1	1	FIRE BOAT		72	E	1	0	0	9999	6000	500	0	0	0
H-2	1	BOSTON WHALER		74	E	0	0	0	0	0	0	0	0	0

8812. CHATHAM CHATHAM HUNI ORB LU

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

8901. FALL RIVER FALL RIVER HUNI FLR LU

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

8995. HYANNIS BARNSTABLE HUNI HVA AS

1 LODESTAR INTERNATIONAL 64 0 0 90 500 0 50 700 0 0 50

9011. LAWRENCE LAWRENCE HUNI LWH LU

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MASSACHUSETTS

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	APPE	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTUREP													

9054. HARTHAS VINEYARD HARTHAS VINEYARD

1	DODGE/ANSUL UNIT	DODGE	77	0	1	60	100	0	3	450	0	0	0	0	0	0
2	STANCY	WALTEPS	0	0	1	60	900	0	0	0	0	0	0	0	0	0

9110. NANTUCKET NANTUCKET MEMORIAL

1	2COS, THIN AGENT	WALTERS	0	0	1	100	500	0	100	500	0	0	0	0	0	0
2	PICKUP/ANSUL	FORD	55	0	0	100	0	0	0	150	0	0	0	0	0	300

9112. NEW BEDFORD NEW BEDFORD MUNI

1	OR	INTERNATIONAL	69	1	0	180	700	0	55	125	0	0	0	0	0	200
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9117. ORANGE ORANGE MUNI

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

9203. PITTSFIELD PITTSFIELD MUNI

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

9207. PLYMOUTH PLYMOUTH MUNI

1	FORD	FORD	56	0	0	0	400	0	24	0	0	0	0	0	0	0
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9336. TAUNTON TAUNTON MUNI

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MASSACHUSETTS

SITE NO.	CITY	AIRPORT	ID	INDEX											
VEHICLE	SIA	TYPE	MANUFACTURE	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	Q02

9398.	WESTFIELD		BARNES MONT		BAF	LU									
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REMARKS - SERVICE BY ANG

9462.	WORCESTER		WORCESTER MUNI		ORH	9S									
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A	1	M-1500	OSHKOSH	76	0	0	180	1500	0	180	0	0	0	0	0
9	1	M9-5	WARD LAFRANCE	54	0	0	180	475	0	35	350	0	0	0	0

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW HAMPSHIRE

SITE NO.	CITY	AIRPORT	IO	INDEX											
VEHICLE	STA	TYPE	MANUFACTURER	Yp	CON	PPO	AUX	PES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2

13224.	CONCORD		CONCORD PUNI	CON	LU											
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REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

13298.	JAFFREY		JAFFREY PUNI-SILVER RANCH	AFN	LU											
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REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

13306.	KEENE		DILLANT-HOPKINS	EEN	AS											
1		0-110		0	0	0	0	100	1000	0	60	150	0	0	0	0

13317.	LEDANON		LEDANON REGIONAL	LER	AS											
1		3/4 TON P/U, ANSUL		0	0	0	0	0	50	0	3	450	0	0	0	0

13332.	MANCHESIER		MANCHESIER APPT/GRENIER IND AP	MHT	NS											
1		3/4 TON CHEM. TK.	DONCE	0	1	0	0	0	0	0	0	0	0	0	0	0
2		0-10		0	1	0	0	500	0	30	0	0	0	0	0	0
3		0-11A		0	1	0	0	1000	0	60	0	0	0	0	0	0

13350.	HAISHUA		BOIFE FIELD	ASH	LU											
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REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

13356.	NORTH CONWAY		WHITE MOUNTAIN	CMN	LU											
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REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW HAMPSHIRE

SITE NO.	CITY	AIRPORT	YR	CON	PRO	AUX	RES	WATER	RATE	APPE	DRY	RATE	FOAM	G02
VEHICLE	SIA	TYPE												

13452.	WHITEFIELD	WHITEFIELD REGIONAL												
REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.														

NEW ENGLAND REGION

CRASH/FIPE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN RHODE ISLAND

SITE NO.	CITY	AIRPORT	YR	CON	PRO	AUX	RES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER											

INDEX

21898.	BLOCK ISLAND	BLOCK ISLAND STATE				810		LU						
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

21979.1	NEWPORT	NEWPORT STATE				204		LU						
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

22000.	PAWTUCKET	NORTH CENTRAL STATE				SFZ		LU						
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

22024.	PROVIDENCE	THEODORE FRANCIS GREEN STATE				PVD		CS						
9-1	1	CFR	WALTERS	79	E	1	0	100	500	500	110	350	0	0
R-2	1	CFR, H-1500	OSHKOSH	79	E	1	0	240	1500	1200	100	0	0	0
R-4	1	CFR	OSHKOSH	79	E	1	0	270	1500	1200	100	0	0	0

22075.	WESTERLY	WESTERLY STATE				WSI		LU						
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

NEW ENGLAND REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN VERMONT

SITE NO.	CITY	AIRPORT	TO	INDEX											
VEHICLE	STA	TYPE	MANUFACTURER	YEAR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
25343	PARRE-MONTPELIER	EDWARD F KNAPP STATE	HPV	LS											
1	1	PICKUP/LT. RESCUE	INTERNATIONAL	71	0	0	0	0	0	0	0	20	0	0	20
2	1	1 TON, 4WD, ANSUL		0	0	0	0	0	50	0	0	450	0	0	0
25361.	BENNINGTON	BENNINGTON STATE	505	LU											
		REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.													
25385.	BURLINGTON	BURLINGTON STATE	8TV	BS											
		REMARKS - SERVICE BY ANG													
25476.	LYNDONVILLE	CALEDONIA COUNTY	600	LU											
		REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.													
25483.1	MIDDLEBURY	MIDDLEBURY STATE	600	LU											
		REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.													
25496.1	MORRISVILLE	MORRISVILLE-STONE STATE	HVL	LU											
		REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.													
25499.	NEWPORT	NEWPORT STATE	EFK	LU											
		REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.													

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRBORNE IN VEPHONI

SITE NO.	CITY	AIRPORT	ID	INDEX	DY RATE	FOAM CO2

25526. QUTLAND ISLAND STATE RUT LU
 OCCASIONS - LIMITED CERTIFICATE. NO CFE EQUIPMENT AT THE AIRPORT.

25550. SPRINGFIELD
... SPRINGFIELD STATE/HARTNESS? ... VSF LU
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

NORTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN IDAHO

SITE NO.	CITY	AIRPORT	ID	INDEX	VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	DATE	AFF	DRY	RATE	FOAM	CO2
4143.	BOISE	BOISE AIP TERMINAL/GOVEN FLD/	BOI	CS															
1		WALTERS	77	E	1	0	120	1500	000	280	20	0	0	0	0	0	0	20	
2		OSHKOSH	77	E	2	0	120	1500	400	180	0	0	0	0	0	0	0	0	
3		AMERICAN LAFRANCE	64	G	2	0	150	500	1000	0	20	0	0	0	0	0	0	20	
4		WALTERS	74	E	2	0	120	1000	500	0	500	0	0	0	0	0	110	20	

SITE NO.	CITY	AIRPORT	ID	INDEX	VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	DATE	AFF	DRY	RATE	FOAM	CO2
4206.	HAILEY	FRIEDMAN MEMORIAL	SUN	LU															
1		FIRE-X	79	E	0	2	120	135	0	15	450	0	0	0	0	0	0	0	

SITE NO.	CITY	AIRPORT	ID	INDEX	VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	DATE	AFF	DRY	RATE	FOAM	CO2
4209.	IDAHO FALLS	FANNING FIELD	IDA	BS															
425		CONCINATION	75	E	3	0	180	1000	300	110	500	0	0	0	0	0	0	0	
410		AMERICAN LAFRANCE	53	G	2	0	180	500	350	0	0	0	0	0	0	0	150	30	

SITE NO.	CITY	AIRPORT	LHS	BS
4234.	LEWISTON	LEWISTON-NEZ PERCE COUNTY		
1		LIGHT RESCUE	69	G
2		CHEVROLET	74	G
		YANKEE WALTER		

SITE NO.	CITY	AIRPORT	HVL <th>LU </th>	LU
4236.	HC CALL	HC CALL		
1		INTERNATIONAL	74	E

SITE NO.	CITY	AIRPORT	PIH <th>BS </th>	BS
4288.	POCATELLO	POCATELLO HUNI		
1		FIRE BOSS	73	E
2		WALTERS	73	E

SITE NO.	CITY	AIRPORT	BS
4344.1	TWIN FALLS	TWIN FALLS CITY-CO ARPT, JOSLIN FIELD	
1		FIRE BOSS	74
2		WALTERS	74

NORTHWEST REGION

CRASH/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN OREGON

SITE NO.	CITY	AIRPORT	TO	INDEX										
VEHICLE	SIA	TYPE	YR	CON	PRO	AUX	RES	WATER	PATE	DIFF	DRY	PATE	FOAM	CO2

19354.	ASTORIA	CLATSOP COUNTY	ASI	AU
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REMARKS - SERVICE BY USCG

19474.	EUGENE	HAMILTON SHEET FIELD	EUG	BS
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119	1	CFR	47	G	0	1	180	75	60	5	0	0	0	0
129	1	CFR	68	G	0	1	180	283	300	17	1500	60	0	0
139	1	CFR	52	G	0	1	180	500	600	30	0	0	0	0

19481.	KLAMATH FALLS	KINGSLEY FIELD	LMT	AAS
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REMARKS - CFR SERVICE BY USAF.

19502.	MC MINNVILLE	MC MINNVILLE MUNI	ASS	LU
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

19514.	MEDFORD	MEDFORD-JACKSON COUNTY	MFR	BS
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C-1	1	CFR	71	F	1	0	180	94	50	6	1000	50	0	0
C-2	1	CFR	76	F	1	0	180	1500	600	160	0	0	0	0
C-3	1	CFR	59	F	1	0	180	1000	750	0	0	0	100	0

19538.	NEWPORT	NEWPORT MUNI	ONP	LU
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

19541.	NORTH BEND	NORTH BEND MUNI	OTH	AS
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REMARKS - SERVICE BY USCG

NORTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN OREGON

SITE NO. VEHICLE	CITY	STA	TYPE	AIRPORT	INDEX									
					VR	CON	PRO	AUX	PES	WATER	PATE	APFF	DRY	RATE

19562. PENNLETON		PENNLETON MUNI													
1	1	4X4				2	0	0	0	375	125	25	0	0	0
2	1	PUMPER		INTERNATIONAL		2	0	0	0	150	500	0	0	0	0
3	1	4X4		CHEVROLET		2	0	0	180	1000	500	120	450	0	0
				INTERNATIONAL											

19571. PORTLAND		PORTLAND INTL													
F-91	1	CFR		WALTERS		1	0	0	210	1500	1000	300	0	0	0
F-82	1	CFR		WALTERS		2	0	0	240	3000	1800	500	0	0	0
F-82R	1	TANKER (RESERVE)		WALTERS		0	0	0	0	2000	0	0	0	0	0
F-83	1	CFR		WALTERS		2	0	0	240	3000	1800	500	0	0	0
F-84	1	CFR		ANSUL		2	0	0	180	200	100	12	1350	25	0
F-85	1	PUMPER		AMERICAN LAFRANCE		0	0	0	0	750	1000	0	0	0	0
C-80	1	CHIEFS VEHICLE		FORD		1	0	0	0	0	0	0	0	0	0
F-87	1	RESCUE VAN		CHEVROLET		0	0	0	0	0	0	0	0	0	0

19580. PORTLAND		ROBERTS FIELD													
199	1	CFR		FIREFOSS		0	0	1	180	50	0	3	350	0	0
198	1	CFR		WALTERS		0	0	1	240	1500	750	100	0	0	0

19595. SALEM		MCNARY FLO													
E-6	1	CFR		FORD		2	0	0	90	750	300	32	20	1	0
CR-6	1	CFR		OSHKOSH		1	0	0	90	1500	1250	180	0	0	15

NORTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN WASHINGTON

SITE NO.	CITY	AIRPORT	IN	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	DIFF	DRY	RATE	FORM	C02
VEHICLE	STA	TYPE	MANUFACTURER													
26109.		BELLINGHAM		DLI												
1	1	3/4 1/2	ANS-MAG 450 FORD		69	G	0	1	100	100	0	6	450	0	0	0
26129.		UREHESTON		PMT												
731	1	STRUCTURAL/CRASH			50	G	0	3	100	500	750	0	15	0	20	15
26234.		EPHATA		EPH												
A	1	1-TON 1/2 THIN AGENT	FORD		73		0	1	100	50	0	3	450	0	0	0
B	1	1/2 TON P/U, ANSUL	CHEVROLET		62		0	1	0	0	0	0	350	0	0	0
26210.		EVERETT		P&E												
18	1	TANKER/CRASH	INTERNATIONAL		63	G	0	0	120	1500	0	120	20	0	0	15
19	1	DR	FIRE NORTHWEST		74	G	1	0	0	100	60	0	450	5	0	0
15	1	PATROL STA. WAGON	FORD		73	G	0	0	0	0	0	0	20	0	0	0
26235.		HOQUITAH		HQM												
1	1	THIN AGENT			42		0	2	100	500	0	30	50	0	0	0
26307.		MOSBY'S LAKE		HMH												
1	1	PICKUP	DODGE		76	G	0	0	120	0	0	0	20	0	0	0
6	1	CFR	FIRE-X		77	G	1	0	150	1000	0	150	500	0	0	0
26327.		OLYMPIA		OLH												
1-23	1	CRASH	HARD LA FRANCE		54		0	3	100	750	750	40	52	1	40	35
A10 7	1	AID VAN	FORD		74		2	1	100	10	10	1	5	1	0	5

NORTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN WASHINGTON

VEHICLE	STA	CITY	TYPE	MANUFACTURER	YR	CON	PRO	ACX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	G02

26345. PASCO IRI-CITIES PSC BS

1	1	CFP		FIRE BOSS	70	G	0	1	180	500	250	0	500	0	0	55	0
2	1	CFP		WHITE	71	F	0	2	240	1000	200	0	0	0	0	75	0
3	1	CFP		INTERNATIONAL	76	F	0	2	270	110	50	0	0	0	0	10	0

26372. PULLMAN/MOSCOW, ID PULLMAN/MCSCOM REGIONAL PUH AU

1	1	CFP		FIRE-X	77	G	0	2	0	100	50	6	450	150	0	0	0
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26395. SEATTLE SEATTLE-TACOMA INTL SEA ES

RED 091	1	TRIPLE COMBINATION		AMERICAN LAFRANCE	69	G	2	0	75	270	1500	0	1000	10	0	0	0
RED 193	1	CFR		FIRE-X	77	E	2	0	102	3000	1500	300	500	8	0	0	0
RED 194	1	CFR		AMERICAN LAFRANCE	60	G	2	0	104	1500	750	200	300	0	0	0	0
RED 495	1	PICKUP		FORD	71	G	1	0	75	30	20	2	300	10	0	0	0
RED 196	1	CFR		FIRE-X	77	E	2	0	104	3000	1500	300	500	0	0	0	0
RED 197	1	COMBINATION CRASH		CATERPILLAR	69	G	1	0	119	7000	1000	300	0	0	0	0	0
RED 298	1	CHEVYENNE, AID VEH.		CHEVROLET	74	G	2	0	0	0	0	0	0	0	0	0	0
RED 499	1	CIVIL DEFENSE TK		RED	55	G	0	0	0	0	0	0	0	0	0	0	0

26396. SEATTLE BOEING FLD/KING COUNTY INTL BFI AU

FD 1	1	OR, FIRE-X		INTERNATIONAL	77	E	3	1	120	500	300	55	400	0	0	0	0
FD 2	1	OR		AMERICAN LAFRANCE	65	E	3	0	120	300	100	30	60	0	0	0	0

26416. SPOKANE SPOKANE INTL GEG DS

C-10	1	JUMPER		FORD	76	E	2	0	90	750	1200	0	0	0	0	0	0
C-9	1	OR		FORD	70	E	1	0	90	100	60	6	450	0	0	0	0
C-11	1	CFR		INTERNATIONAL	70	E	2	0	90	200	130	12	1350	15	0	0	0
C-1	1	CFP		FIRE-X	77	E	2	0	150	3000	1500	300	450	0	0	0	0
C-2	1	CFR		FIRE-X	77	E	2	0	150	3000	1500	300	450	0	0	0	0

NOPIHWEI REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRBORIS IN WASHINGTON

SITE NO.	CITY	AIRPORT	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER											

26419. SPOKANE FAIRCHILD AFB SKA AU

REMARKS - MILITARY FACILITY.

26450. WALLA WALLA WALLA WALLA CITY COUNTY ALH AU

271	1	CFR		73	E	1	0	180	600	300	50	500	2	0
272	1	CLASS 125		42	G	1	0	180	300	60	0	45	2	20

26461. WENATCHEE PANGBORN FIELD EAT AU

PFA 1	1	4RD, 1-TON		73	E	1	2	180	94	50	6	500	4	0
PFA 2	1	2-TON		41	F	1	2	0	500	500	0	0	0	50

26480. YAKIMA YAKIMA AIR TERMINAL YKH QS

1	1	CFR		75	G	2	0	0	100	50	6	450	0	0
2	1	CFR		70	G	2	0	0	1500	750	150	0	0	0

ROCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN COLORADO

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PFO	AUX	RES	WATER	PATE	APFF	DRY	RATE	FOAM	G02
VEHICLE	STA	TYPE	MANUFACTUREP													

2510.	ALAHOSA		ALAHOSA MUNI					ALS	AS							
1	1	CFR	FIRE-X	76	G	1	3	150	500	250	55	300	0	0	0	16

2517.	ASPEN		ASPEN-PIIKIN CO/SARDY FLD/					ASE	AS							
1	1	CFR		79	E	4	5	0	500	250	55	500	0	0	0	16

2520.1	BRUSH		BRUSH MUNI					7V5	LU							
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

2543.	COLORADO SPRINGS		CITY OF COLORADO SPRINGS MUNI					COS	CS							
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REMARKS - CFR PROVIDED BY PETERSON AFB.

2546.	CORTEZ		CORTEZ-MCNTEZUMA COUNTY					CEZ	AS							
1	1		INTERNATIONAL	74	G	6	13	100	50	0	0	450	0	0	0	0

2576.	DENVER		STAPLETON INTL					DEN	DS							
1	1	CFR	WALTERS	62	G	0	0	0	1500	0	300	0	0	0	0	0
2	2	CFR	INTERNATIONAL	60	G	0	0	0	0	0	0	2000	0	0	0	0
3	1	CFR	WALTERS	64	G	0	0	0	3000	0	250	0	0	0	0	0
4	2	OR	INTERNATIONAL	74	G	2	0	0	0	0	50	450	0	0	0	0
5	1	CHIEFS CAR	INTERNATIONAL	70	G	2	0	0	0	0	0	0	0	0	0	0
6	1	CFR	WALTERS	76	E	2	0	0	1500	0	100	0	0	0	0	0
7	2	CFR	WALTERS	76	E	2	0	0	1500	0	100	0	0	0	0	0
8	1	CFR	WALTERS	77	E	2	0	0	3000	0	250	0	0	0	250	0
9	2	CFR	WALTERS	77	E	2	0	0	3000	0	250	0	0	0	250	0
10	1	EQUIPMENT	FOFO	65	G	0	0	0	0	0	0	0	0	0	0	0

POCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN COLORADO

SITE NO.	CITY	AIRPORT	IO	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PFO	AUX	RES	WATER	PATE	AFF	DRY	RATE	FOAM	CO2
2586.1	DURANGO	DURANGO-LA PLATA COUNTY	DR0	AS																
1	1	CFR	74	G	3	6	120	50	250	60	500	0	0	999						
2603.1	FORT COLLINS/LOVELAND	FORT COLLINS-LOVELAND MUNI	1V4	AU																
1	1	IRE-X	75		0	0	0	100	0	6	450	0	0	0						
2624.	GRAND JUNG	WALKER FIELD	GJT	DS																
1	1	CFR, FIREX	75	G	4	4	150	450	0	0	150	0	100	0						
2	1	CFR, FIREX	76	G	5	5	195	1000	500	0	60	0	100	0						
2631.	GUNNISON	GUNNISON COUNTY	GUC	AS																
1	1	CFR	73	G	2	40	150	100	0	6	450	0	0	0						
2637	HAYDEN	YANPA VALLEY	HON	AS																
1	1	CFR	75	G	2	3	0	500	250	60	500	0	0	0						
2654.	LAHAR	LAHAR MUNI	LAA	LS																
1	1	CFR	75	G	4	3	100	500	250	60	0	0	0	0						
2692.	MONTROSE	MONTROSE COUNTY	HTJ	AS																
1	1	CFR	79	E	0	2	0	500	250	100	300	0	0	0						

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN COLORADO

SITE NO.	CITY	AIRPORT	ID	INDEX
VEHICLE	STA TYPE	MANUFACTURED:	YR CON PRO	AUX PES WATER RATE DRY RATE FOAM CO2

2709.	PUENLO	PUERLO MEMORIAL	PUER	AAS	0	0	0
1	CFR	YANKEE HALTER	66	G	1	0	100
2	PUWER	FORO	66	G	0	0	1500
3	CFR	INTERNATIONAL	76	G	1	0	100

ROCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MONTANA

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
12265.	BILLINGS		BILLINGS LOGAN INTL													
1	OR		ANSUL		74	G	1	0	150	94	0	6	400	0	0	0
2	CFR		HALTERS		75	G	1	0	180	1500	1000	0	0	0	0	10
3	CFR		HALTERS		75	G	1	0	140	1500	1000	0	0	0	0	10
12273.	BOZEMAN		GALLATIN FLD													
1	OR	ANSUL	CHEVROLET		70	E	1	2	120	94	0	6	450	0	0	30
2	CFR		HALTERS		76	E	1	2	150	1500	100	150	0	0	0	50
3	SIUCY		FORD		71	E	0	4	210	1000	500	0	50	0	0	50
4	WATER TANK		FORD		64	G	0	2	240	1200	500	0	0	0	0	0
12246.	QUITE		BERT HOONEY													
1	OR		HALTERS		77	E	0	1	180	500	250	100	500	0	0	0
2	CFR		OSHKOSH		76	E	0	3	120	1000	50	135	0	0	0	0
3	TANKER, 6X6		INTERNATIONAL		54	G	0	2	180	1000	50	0	0	0	0	0
12375.	GLASGOW		GLASGOW INTL													
1					74	E	0	1	150	47	0	3	450	0	0	0
12374.1	GLENDALE		DANSON COMMUNITY													
1	OR		DYNAC		75	E	0	1	0	94	0	6	450	0	0	600
12391.	GREAT FALLS		GREAT FALLS INTL													
1	CFR		OSHKOSH		76	G	2	4	150	1500	1250	180	0	0	0	0
2	CFR		OSHKOSH		75	G	2	4	150	1500	1250	180	0	0	0	0
3	TANKER		INTERNATIONAL		63	G	1	0	180	1500	500	0	0	0	0	0
4	OR		HA9C LAFRANCE		74	G	0	4	0	600	500	60	0	0	0	0

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MONTANA

REMARKS - NO REF AT HELIPORT

ROCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR ALPPOHIS IN MONTANA

SITE NO.	CITY	STA	TYPE	AIRPORT	MANUFACTURER	YR	CON	PRO	AUX	PFS	WATER	RATE	AFF	DRY	DATE	FOAM	CO2
SIDNEY																	
12503.	SIDNEY								SDY	LU							
1	1	CFR				75	G	1	2	150	47	0	7	450	0	0	0
					FIRE-X												
WEST YELLOWSTONE																	
12543.1	WEST YELLOWSTONE								WYS	AAS							
1	1	CFR				75	G	2	2	150	500	110	300	0	0	0	0
2	1	FOAMER				52	F	0	0	125	800	0	0	60	0	0	0
3	1	TANKER				64	F	0	0	120	4000	0	0	0	0	0	0
4	1	OR				75	G	0	0	150	0	0	300	0	0	0	0
					FIRE-X												
					REO												
					INTERNATIONAL												
					JEEP												
HOLF POINT																	
12573.	HOLF POINT								OLF	LU							
1	1	CFR				74	G	1	1	150	47	3	0	0	0	0	0
					HOLF POINT INTL												
					FIRE-X												

ROCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NORTH DAKOTA

SITE NO.	CITY	AIRPORT	TO	INDEX										
VEHICLE	STA	TYPE	VR	CON	PPD	AUX	FES	WATED	RATE	APFF	DOY	RATE	FOAM	CO2

17265. BISHARCK

VEHICLE	STA	TYPE	VR	CON	PPD	AUX	FES	WATED	RATE	APFF	DOY	RATE	FOAM	CO2
1	1	CFR	75	E	2	2	170	1000	0	135	0	0	0	0
2	1	CFR	75	E	2	2	170	1000	0	135	0	0	0	0
3	1	CFR	59	G	1	2	0	950	0	70	60	0	0	0

17302. DEVILS LAKE

VEHICLE	STA	TYPE	VR	CON	PPD	AUX	FES	WATED	RATE	APFF	DOY	RATE	FOAM	CO2
1	1	CFR	75	E	1	4	150	47	0	3	450	0	0	0

17304. DICKINSON

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

17323. FARGO

REMARKS - SERVICE BY ANG

17349.1 GRAND FORKS

VEHICLE	STA	TYPE	VR	CON	PPD	AUX	FES	WATED	RATE	APFF	DOY	RATE	FOAM	CO2
1	1	CFR	75	E	2	2	130	1500	0	135	0	0	0	100
2	1	OR	74	E	2	2	120	0	0	0	450	0	0	100

17357. JAMESTOWN

VEHICLE	STA	TYPE	VR	CON	PPD	AUX	FES	WATED	RATE	APFF	DOY	RATE	FOAM	CO2
1	1	CFR	65	G	1	3	150	500	0	60	97	25	0	0

17417.5 HINOT

REMARKS - MILITARY FACILITY.

ROCKY MOUNTAIN REGION

CRASH/RESCUE EQUIPMENT INVENTORY FOR AIRBORNE IN NORTH DAKOTA

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
17413.	HINDY		HINDY INTL		75	E	2	10	160	500	0	100	500	0	0	0
	1	CFP	FOG													
17496.1	WILLISTON		STOULTON FLD INTL		75	E	1	3	150	47	0	3	450	0	0	0
	1	CFE	FIRE-X													

ROCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN SOUTH DAKOTA

SITE NO.	CITY	VEHICLE	STA	TYPE	AIRPORT	YR	CON	PRO	AUX	RES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2

22603.	ABERDEEN				ABERDEEN REGIONAL												
1		OR															
2		CFR			DODGE	72	E	0	2	0	0	0	0	350	0	0	0
					WALTERS	75	E	1	2	110	500	0	100	500	0	0	0

22631.	BROOKINGS				BROOKINGS MUNI												
1		CFR			AMERICAN LAFRANCE	75	E	3	5	160	47	0	3	450	0	0	0

22702.	HURON				HURON REGIONAL												
1		CFR			WALTERS	75	E	6	6	110	500	0	100	500	0	0	0

22741.	HITCHELL				HITCHELL MUNI												
1		CFR			FIRE-X	75	E	1	2	150	47	0	3	450	0	0	0

22762.	PIERRE				PIERRE MUNI												
1		CFR			WALTERS	75	E	3	7	160	500	0	100	500	0	0	0
2		CFR			WALTERS	75	G	3	7	160	500	0	100	500	0	0	0
3		TANKER			GHC	75	G	0	0	0	4,000	0	0	0	0	0	0

22774.	RAPID CITY				ELLSWORTH AFD												

REMARKS - MILITARY FACILITY.

22776.	RAPID CITY				RAPID CITY REGIONAL												
1		CFR			WALTERS	75	E	1	1	95	1000	0	100	0	0	0	0
2		CFR				53	G	1	0	100	1000	0	160	2	0	0	0
3		OR			INTERNATIONAL	75	G	1	2	100	400	0	0	300	0	40	0

ROCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN UTAH

SITE NO.	CITY	AIRPORT	IN	INDEX											
VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PPQ	AUX	PES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2
25117.	CLOAP CITY		CEDAR CITY MUNI	CDC	AAS										
1	1	CFR	FIRE-X	75	E	0	4	100	500	0	60	300	0	0	30

25172.	KANAB		KANAB MUNI	KHB	LU										
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

25231.	OGDEN		OGDEN MUNI	OGD	AAU										
1	1	CFR	FIRE-X	70	E	2	0	240	500	0	60	300	0	0	0

25283.	SALT LAKE CITY		SALT LAKE CITY INTL	SIC	CS										
1	1	CFR	HALTERS	76	G	2	2	140	3000	0	500	0	0	0	0
2	1	CFR	HALTERS	76	G	2	2	180	3000	0	500	0	0	0	0
3	1	OR, FIRE BOSS	CHEVROLET	74	G	1	2	150	0	0	100	0	0	0	0
4	1	CFR	CHEVROLET	65	G	1	2	160	200	0	40	1500	0	0	0
5	1	STRUCT.	SEAGRAVE	56	G	1	0	0	500	0	0	0	0	0	0

25324.	VERNAL		VERNAL	VEL	AS										
1	1	CFR		57	G	1	0	0	0	0	0	500	0	0	0

ROCKY MOUNTAIN REGION
CHASIZ/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN WYOMING

SITE NO.	CITY	AIRPORT	TO	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
27754.	CASPER		NAIPOKA COUNTY INTL													
1	1	CFR	OSHKOSH		75	5	1	4	160	1500	0	140	0	0	0	0
2	1	CFR	FIRE-X		75	6	1	6	140	100	0	0	450	0	0	0
27759.	CHEYENNE		CHEYENNE MUNI													
27765.	CODY		CODY MUNI													
1	1	CFR	FIRE-X		75	6	2	5	140	500	0	60	300	0	0	0
27811.	JACKSON		JACKSON HOLE													
1	1	CFR	FIRE-X		77	6	1	2	130	500	0	100	300	0	0	0
27834.	LARAMIE		GENERAL DREES FIELD													
1	1	CFR	FIRE-X		75	6	0	1	132	47	0	3	450	0	0	0
27870.	PONELL		PONELL MUNI													
27876.	RIVERTON		RIVERTON REGIONAL													
1	1	CFR	FIRE-X		75	6	2	1	130	545	0	60	300	0	0	0

REMARKS - LIMITED CERTIFICATE: NO CFR EQUIPMENT AT THE AIRPORT.

REMARKS - SERVICE BY USAF

ROCKY MOUNTAIN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN WYOMING

SITE NO.	CITY	AIRPORT	ID	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PPO	AUX	FES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
27878.	ROCK SPRINGS	ROCK SPRINGS-SWEETHATER COUNTY	RKS	AS																
1	1	CFR, FIRE BCSS	0000E		74	G	2	4	124	47	0	3	450	0	0	0	0	0	0	0
27892.	SHERIDAN	SHERIDAN COUNTY	SHR	AAS																
1	1	PUMPER	GHC		77	E	2	0	115	300	0	0	0	0	0	0	0	0	0	0
2	1	PUMPER	GMC		76	G	2	0	110	750	0	20	0	0	0	0	0	0	0	0
3	1	CFR	FIRE-X		75	G	2	0	105	500	0	55	300	0	0	0	0	0	0	0
27895.	HORLAND	HORLAND PUNI	HRL	AAS																
1	1	CFR	FIRE-X		75	G	1	1	110	500	0	55	300	0	0	0	0	0	0	0

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ALABAMA

STATE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	FES	WATER	PATE	AFF	DRY	PATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
129.	ANNISTON															
1	1	OR, FIRE BOSS	GHC		74	G	1	0	130	50	0	3	450	0	0	0

ANNISTON-CALHOUN COUNTY

ANB AS

164.

BIRMINGHAM

BNH CS

REMARKS - SERVICE BY USAF AND HAYES AIRCRAFT CORP.

267.

DOTHAN

DHN QS

CRASH 1

1

OR

DODGE

74 G

1

0 101

100

0 500

0 0 0

CRASH 2

1

FOAM PUMPER

WALTERS

75 G

2

0 64

1500

0 0 0

0 0 0

333.

GADSDEN

GAD AS

1

1

FORD

FORD

74 G

0

1 172

100

0 450

0 0 0

385.1

HUNTSVILLE

HUNTSVILLE-MANISON JETPORT-C T JONESHSV CS

RESCUE 1

1

OR

INTERNATIONAL

75 G

2

0 125

50

0 500

0 0 0

CRASH 2

1

FOAM PUMPER

WALTERS

74 G

2

0 115

1500

0 0 0

0 0 0

CRASH 1

1

FOAM PUMPER

WALTERS

72 G

1

0 119

1500

0 0 0

0 0 0

437.

MOBILE

BROOKLEY

BFH AAU

37

1

FOAM PUMPER

DODGE

69 G

1

0 154

500

0 500

0 50 0

38

1

FOAM PUMPER

DODGE

69 G

2

0 156

500

0 500

0 50 0

39

1

TANK TRUCK

INTERNATIONAL

57 F

1

0 195

3000

0 0 0

0 999 0

437.

1

UTILITY

DODGE

62 F

1

0 140

0

0 0 0

0 200 0

438.

MOBILE

BATES FIELD

HOB CS

RED 4

1

OR (USCG)

INTERNATIONAL

69 G

2

0 126

100

0 450

0 0 0

33

1

FOAM PUMPER

GHC

69 G

2

0 125

1000

0 0 0

0 0 0

35

1

FOAM PUMPER

WALTERS

76 G

2

0 126

1500

0 0 0

0 300 0

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ALABAMA.

REMARKS - YELLOW 9100 3 PROPERTY OF AND HANDED BY USAF.

528.1	TALLA OEGA	TALLEDEGA HUNI	ASN	LU

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

[illegible]

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN FLORIDA

STATION NO.	CITY	AIRPORT	YR	CON	PPO	AUX	PES	WATER	PALE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE												

3100. CECIL

CECIL FIELD HAS

REMARKS - MILITARY FACILITY.

3121. COCOA BEACH

PAIRICK AFB

REMARKS - MILITARY FACILITY.

3121 12 COCOA BEACH

CAPE CANAVERAL AFB SKID STRIP

REMARKS - MILITARY FACILITY.

3147. DAYTONA BEACH

DAYTONA BEACH REGIONAL

1	OR	INTERNATIONAL	65	G	1	0	80	50	50	0	0	0	30
2	CFR	YANKEE WALTER	74	G	1	0	95	1500	800	300	0	0	0
3	CFR	MAXIMON MERRINGTON	57	G	1	0	90	800	500	80	0	30	0
4	CFR	YANKEE WALTER	74	G	1	0	100	1500	800	300	0	0	0

3192. FT LAUDERDALE

FT LAUDERDALE-HOLLYWOOD INTL

31	RESCUE	WALTERS	71	G	1	0	120	3000	1000	500	60	0	0
5	RESCUE	WALTERS	71	G	1	0	100	3000	1000	500	60	0	0
4	RESCUE	FORD	60	F	2	0	125	1000	750	0	300	0	0
1-1	OR	INTERNATIONAL	75	G	1	0	85	0	0	0	500	0	0

3198. FT MYERS

PAGE FIELD

101	CHIEF COMMAND	DODGE	75	G	1	0	115	50	0	0	20	0	0
104	OR	DODGE	75	G	1	0	120	1500	0	180	20	0	0
105	CFR	WALTERS	76	G	2	0	125	1500	0	180	20	0	0
106	CFR	WALTERS	76	G	2	0	125	1500	0	180	20	0	0
103	CRASH/STRUCTURE	DARLEY	65	G	0	0	0	800	0	80	20	0	0
109	PUMPER/HURSE, FH-6	FORD	77	G	0	1	0	500	0	0	0	0	0

SOUTHEPN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN FLORIDA

SITE NO.	CITY	AIRPORT	TO	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	APPR	DRY	RATE	FOAM	C02
3210.	GAINESVILLE	GAINESVILLE REGIONAL APPT	CONV	QS												
2	1	CFR	74	G	1	0	130	500	0	30	500	0	0	0	0	0
2	1	RESCUE	78	G	2	0	180	1500	1200	180	0	0	0	0	0	0

3242. HONFSTEAD HONFSTEAD AFB HST AU
REMARKS - MILITARY FACILITY.

3250.1	JACKSONVILLE	JACKSONVILLE INTL	JAX	DS												
1	1	COHARD VEHICLE	64	F	2	0	0	0	0	40	0	0	0	0	0	0
2	1	PESQUE	75	G	2	0	185	3000	1500	250	0	0	250	0	0	0
4	1	P-4	75	G	1	0	165	1500	1200	180	0	0	0	0	0	0
8	1	OR, ANSUL	70	G	2	0	150	190	0	6	450	0	0	0	0	0
3	1	P-4	74	G	1	0	240	1500	1200	180	0	0	0	0	0	0
5	1	TANKER (AUXIL.)	63	G	1	0	0	1500	0	90	0	0	0	0	0	0

REMARKS - ONLY VEHICLES 2 AND 3 OWNED BY PORT AUTHORITY. OTHERS OWNED BY USAP.

3253.	KEY WEST	KEY WEST INTL	EYW	LU												
1	1	OR	59	F	0	2	70	500	0	0	500	0	0	50	20	0

3283. LAKELAND LAKELAND MUNI LAL LU
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

3314. HAPATHON HAPATHON FLIGHT STRIP HTH LU
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

~~CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN FLORIDA~~

SITE NO.	CITY	AIRPORT	ID	INDEX											
VEHICLE	STA	TYPE	HANUFACTUREP	YR	CON	PRO	AUX	FES	WATER	PATE	APFF	DRY	RATE	FOAH	CO2
MELBOURNE															
3321.	MELBOURNE	MELBOURNE REGIONAL	HLB	CS											
1	OR	FIRE BOSS	73	G	1	0	120	50	0	3	450	0	0	0	0
7	CPR	HARD LAFRANCE	74	G	2	0	130	1000	750	100	0	0	0	0	0
2	CPR	HARD LAFRANCE	75	G	2	0	135	2000	1200	200	0	0	0	0	0
MIAMI															
3333.	MIAMI	MIAMI INTL	MIA	ES											
3	RESCUE	WALTERS	71	G	1	0	0	1000	750	200	500	0	0	0	0
12	PUMPER	AMERICAN LAFRANCE	77	G	4	0	125	700	500	70	20	0	70	0	0
5	OR	FIRE BOSS	73	G	2	0	135	100	0	6	450	0	0	0	0
1	RESCUE	WALTERS	78	G	3	0	115	3000	1800	250	0	0	250	0	0
2	RESCUE	WALTERS	78	G	3	0	110	3000	1400	250	0	0	250	0	0
RES 12	CONNANO	PARSONS	74	G	2	0	0	0	0	0	20	0	0	0	15
NAPLES															
3379.	NAPLES	NAPLES HUNI	APF	AU											
1	OR, FIRE BOSS	FORD	75	G	0	2	120	50	0	3	450	0	0	0	0
OCALA															
3390.	OCALA	OCALA HUNI/JIM TAYLOR FLD/	OOF	AU											
1	OR, ANSUL	FORD	75	G	0	2	150	50	0	3	450	0	0	0	0
ORLANDO															
3407.	ORLANDO	ORLANDO INTERNATIONAL	HCO	OS											
C-81	CRASH	HARD LAFRANCE	71	G	2	0	0	3000	1000	500	0	0	0	0	0
C-A2	P-2	FHO	65	G	2	0	120	2300	1400	200	0	0	0	0	0
C-83	OR, FIRE BOSS	FIRE ROSS	74	G	1	0	160	100	0	6	450	0	0	0	0
C-A4	O-118 (AUXIL.)	AMERICAN LAFRANCE	57	F	2	0	0	1000	0	60	0	0	700	0	0
6	CPR	OSHKOSH	78	G	2	0	140	3000	1800	400	0	0	0	0	0
PANAMA CITY															
3430.1	PANAMA CITY	PANAMA CITY-BAY COUNTY	PFN	BS											
RES 1	OR, FIRE BOSS	INTERNATIONAL	72	G	2	0	120	100	0	6	450	0	0	0	0
RES ?	CPR	WALTERS	76	G	2	0	135	1500	750	0	0	0	300	0	0
RES 1	P-7 (AUXIL.)	INTERNATIONAL	0		1	0	0	2500	0	0	0	0	320	0	0

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN FLORIDA

SITE NO.	CITY	AIRPORT	STA	TYPE	YR	CON	PPO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE																
PENSACOLA																
3435.	PENSACOLA	PENSACOLA REGIONAL														
110	1	OR			77	G	1	0	150	500	0	50	500	0	0	0
111	1	CFR			76	G	2	0	170	1500	800	300	0	0	0	0
112	1	CFR			76	G	2	0	180	1500	800	300	0	0	0	0
PUNTA GORDA																
3455.	PUNTA GORDA	CHARLOTTE COUNTY														
1	1	OR			0	F	0	1	120	200	0	12	0	0	0	0
2	1	FOAM PUMPER			66	F	0	2	150	1100	0	200	0	0	0	0
ST PETERSBURG/CLEARWATER																
3475.	ST PETERSBURG/CLEARWATER	ST PETERSBURG-CLEARWATER INTL														
1	1	OR			74	G	1	0	120	100	0	6	400	0	0	0
2	1	OR			53	F	3	0	125	500	0	0	500	0	40	0
3	1	FOAM PUMPER (USCG)			78	G	3	0	150	1500	1200	180	0	0	0	0
4	1	FOAM PUMPER (USCG)			79	G	1	1	165	1500	1200	180	0	0	0	0
SANFORD																
3481.	SANFORD	SANFORD														
1	1	OR, FIRE-X			74	G	0	2	155	500	0	30	300	0	0	0
SARASOTA/BADENTON																
3484.	SARASOTA/BADENTON	SARASOTA-BADENTON														
54	1	LI CFR-9, F-250			75	G	2	0	60	0	0	0	450	0	0	0
51	1	CFR-2			76	G	2	0	55	1500	1000	180	0	0	0	0
53	1	CFR-3			77	G	2	0	70	1500	1000	180	0	0	0	0
TALLAHASSEE																
3509.1	TALLAHASSEE	TALLAHASSEE MUNI														
29	1	RESCUE			75	G	1	0	115	3000	1500	250	0	0	250	0
27	1	OR			76	G	1	0	100	50	0	0	450	0	0	0
9	1	CFR/STRUCTURAL			55	F	1	0	125	1275	0	125	0	0	0	0
7	1	WATER/FOAM (AUX)			57	F	0	1	0	1600	0	100	0	0	0	0

SOUTHERN REGION

CRASH/LIFE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN FLORIDA

SITE NO.	CITY	AIRPORT	10	INDEX										
VEHICLE	STA	TYPE	YR	CON	PPO	AVX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2

3513.	TAMPA	TAMPA INTL	IPA	DS										
CRASH 1	1	OR, FIRE BOSS	77	G	3	170	500	0	110	500	0	0	0	0
CRASH 2	1	RESCUE	63	G	5	200	2500	1000	0	0	0	500	0	
CRASH 3	1	RESCUE	64	F	2	237	1500	750	200	0	0	0	0	
CRASH 4	1	TANKER	66	F	2	249	2500	750	0	0	0	0	0	

3531.3 TITUSVILLE NASA SHUTTLE LANDING FACILITY X68 LU
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

3532.	TITUSVILLE	TITUSVILLE-COCOA	TIX	AAU										
1	1	OR, ANSUL	69	G	1	0	130	100	0	6	450	0	0	0
2	1	STRUCTURAL PUMPER	63	F	0	2	0	750	750	50	0	0	0	0

3534. VALPARAISO EGLIN AFB VPS BS
REMARKS - MILITARY FACILITY.

3549.	VERO BEACH	VERO BEACH HUNT	VRB	AAU										
C12	1	OR, LX4	64	G	1	0	150	0	0	500	0	0	0	0
FR14	1	RESCUE	76	G	2	0	190	1200	750	50	0	0	0	0

3555.	WEST PALM BEACH	PALM BEACH INTERNATIONAL	PBI	DS										
RED 2	1	OR	64	G	1	0	90	0	0	1000	0	0	0	60
RED 3	1	OR	65	G	1	0	105	500	0	45	20	0	0	0
RED 4	1	CFP	67	G	2	0	120	1000	750	0	300	120	0	0
RED 5	1	CFP	68	G	1	0	130	1500	750	150	0	0	0	0
RED 6	1	CFR	70	G	2	0	0	7000	1800	500	0	0	0	0
RED 10	1	NURSE TANKER	61	F	1	0	0	5000	0	0	0	0	0	0
7	1	AMBULANCE	73	E	0	0	0	0	0	0	0	0	0	0

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN GEORGIA

SITE NO.	CITY	AIRPORT	MANUFACTURER	VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	RATE	APPR	DRY	PAYE	FOAM	CG2
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3616. ALBANY ALBANY DOUGHERTY COUNTY ABY BS

199	1	OR	FIRE BOSS	74	G	2	0	95	100	0	6	450	0	0	0	0	0	0
199	1	FOAM PUMPER	WALTERS	75	G	1	0	107	1500	1000	150	0	0	0	0	0	0	

3637. ATHENS ATHENS HUNT AHN AS

BLAZE 1	1	OR	INTERNATIONAL	74	G	0	1	163	50	0	3	450	0	0	0	0	0
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3640. ATLANTA WILLIAM B HARTSFIELD ATLANTA INTL ATL DS

YELLOW 8	2	OR	GMC	75	G	2	0	65	100	0	6	1000	0	0	0	0	0
YELLOW 2	1	FOAM PUMPER	OSHKOSH	79	G	2	0	75	4000	1800	515	0	0	0	0	0	0
YELLOW 1	1	FOAM PUMPER	OSHKOSH	79	G	2	0	98	4000	1800	515	0	0	0	0	0	0
YELLOW 6	1	FOAM PUMPER	AMERICAN LAFRANCE	73	G	3	0	102	1000	1000	55	0	0	0	200	0	0
YELLOW 3	1	FOAM PUMPER	YANKEE WALTER	79	G	2	0	185	4000	1800	515	0	0	0	0	0	0
YELLOW 4	1	FOAM PUMPER	WALTERS	72	G	1	0	0	3000	2000	0	0	500	0	0	0	0
RED 10	1	OR	ODDGE	60	F	2	0	185	0	0	0	1000	0	0	0	0	0

3643. ATLANTA DEKALB-PEACHTREE POK LU

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

3650. AUGUSTA DUSH FIELD AGS CS

6	1	OR, FIRE BOSS	DODGE	62	G	0	1	176	0	0	0	500	0	0	0	0	0
2	1	FOAM PUMPER	OSHKOSH	77	G	1	0	115	1800	1200	180	0	0	0	0	0	0
1	1	FOAM PUMPER	OSHKOSH	76	G	1	0	120	1500	1200	180	0	0	0	0	0	0

3653. BRUNSWICK GLYNCO JETPORT GOL LU

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN GEORGIA

STATION NO.	CITY	AIRPORT	IN	INDEX	YR	CON	PRO	AUX	PES	WATER	RATE	APPR	DOY	RATE	FOAM	CO2
3729.	COLUMBUS	COLUMBUS METROPOLITAN	CSG	BS												
1	1	FOAM PUMPER/CC			69	6		2	0	60	1000	750	150	350	0	0
12	1	FOAM PUMPER/NC			69	6		2	0	73	1000	750	150	350	0	0
3799.A	FORST BERNING (COLUMBUS)	LAHSON AAF	LSF	AU												
REMARKS - MILITARY FACILITY.																
3902.	MACON	LEWIS G. WILSON	HCH	AS												
1	1	OR, F-250/ANSUL			74	6		1	0	96	0	0	0	500	0	0
2	1	FOAM PUMPER			75	6		1	0	105	1000	750	200	0	0	0
3	1	FOAM PUMPER			75	6		1	0	110	1000	750	200	0	0	0
3910.	HARTZETTA	DOBBS AFB	HGE	AU												
REMARKS - MILITARY FACILITY.																
3915.	MOULTREE	MOULTREE MUNICIPAL	HGR	AS												
1	1	OR			84	F		1	0	150	50	0	3	450	0	0
3936.	MOULTREE	SPENCE	HUL	LU												
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.																
3974.	ROPE	RICHARD B. RUSSELL	HMG	LU												
REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.																

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN GEORGIA

SITE NO.	CITY	STA	TYPE	MANUFACTURER	YR	CON	PPO	AUX	PES	WATER	PATE	APFF	DRY	RATE	FOAM	C02

3992. SAVANNAH SAVANNAH MUNI SAV QS

REMARKS - ALL VEHICLES USAF

4071. VALDOSIA VALCOSIA MUNI VLD AAS

RESCUE 1 1 INH AGENT, FIFE-X INTERNATIONAL 74 6 2 0 80 500 500 100 450 0 0 0

4072. VALDOSIA HOOPY AFB VAO AU

REMARKS - MILITARY FACILITY.

4088. WARNER ROBINS ROBINS AFB MPB AU

REMARKS - MILITARY FACILITY.

SOUTHERN REGION

CRASH/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN KENTUCKY

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	PES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2
VEHICLE	TYPE	MANUFACTURE														
7055.	DUNLING GREEN	DUNLING GREEN-WARREN COUNTY	BHG	LU												
REMARKS - LIMITED CERTIFICATE. NO CFE EQUIPMENT AT THE AIRPORT.																
7393.	COVINGTON/CINCINNATI	GREATER CINCINNATI	SVG	DS												
907	1	FOAM PUMPER	72	G	1	0	195	3000	1500	500	0	0	0	0	0	0
913	1	FOAM PUMPER	72	G	1	0	135	3000	1500	0	0	0	0	0	500	0
12	1	FOAM PUMPER (AUX.)	60	G	1	0	0	1000	1000	0	0	0	0	0	110	0
907	1	OR, ANSUL	76	G	1	0	105	100	0	6	450	0	0	0	0	0
964	1	AMBULANCE	77	G	1	0	0	0	0	0	0	0	0	0	0	0
REMARKS - MILITARY FACILITY.																
7134.6	FOPT CAMPBELL	CAMPBELL AAF	HOP	AU												
7233.	LEXINGTON	BLUE GRASS	LEX	BS												
FOX 7	1	OR, ANSUL	68	G	1	0	110	200	0	12	1350	0	0	0	0	0
FOX 9	1	FOAM PUMPER	71	G	1	0	120	750	500	150	0	0	0	0	0	0
9	1	FOAM PUMPER	78	G	1	0	70	1500	1000	100	0	0	0	0	0	0
7239.1	LONDON	LONDON-CORBIN APPT-HAGEF FLD	LOZ	AS												
1	1	3/4 TON/SKID	71	G	0	1	115	0	0	0	500	0	0	0	0	0
7241.	LOUISVILLE	STANDIFORD FIELD	SDF	CS												
49	1	FOAM PUMPER	76	G	2	0	120	1500	1000	200	0	0	0	0	0	0
48	1	FOAM PUMPER	73	G	1	0	125	1400	1000	200	0	0	0	0	0	0
47	1	OR, FIRE BUSS	72	G	1	0	160	0	0	0	4000	0	0	0	0	0
45	1	FOAM PUMPER/TANKER	51	F	1	0	0	5000	1000	400	0	0	0	0	0	0

SOUTHEAST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN KENTUCKY

SITE NO.	CITY	AIRPORT	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	RATE	APPR	DAY	RATE	FOAM	CO2
VEHICLE	STA	TYPE													
7312.	PAOLIKAH		DARKLEY REGIONAL												
APRT 1	1	OR. FIRE-X	FIRE-X	74	6	1	0	90	50	0	3	450	0	0	0
APRT 2	1	FOAM PUMPER	WALTERS	75	6	1	0	96	1000	750	150	0	0	0	0

U. OWENSBORO

OWENSBORO

AAU

REMARKS - NO CERTIFICATE.

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MISSISSIPPI

VEHICLE	STA	CITY	AIRPORT	MANUFACTURER	YR	CON	PRO	AUX	PES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2

11194.51		COLUMBUS	POINT/BIARKVIL	GOLDEN TRIANGLE REGIONAL												
1			CFM, H-1500	OSHKOSH	76	G	1	0	135	1500	1200	100	0	0	0	0
2			OR, 4X4/FIRE BOSS	DODGE	73	G	1	0	135	50	50	1	0	5	0	0

11195.		COLUMBUS		COLUMBUS AFB												

REMARKS - MILITARY FACILITY.

11244.		GREENVILLE		GREENVILLE INTERNATIONAL												
7			FOAM PUMPER	OSHKOSH	75	G	2	0	110	1000	750	130	0	0	0	0
24			CFR	AMERICAN LAIRANCE	56	G	2	0	0	400	0	25	500	0	0	0
16			CFM (AUXIL.)	AMERICAN LAIRANCE	56	G	0	0	0	400	0	25	0	0	0	0
4			SPECIAL PUMPER	INTERNATIONAL	53	G	0	0	0	150	500	0	0	0	0	0

11247.		GREENWOOD		GREENWOOD-LEFLORE												
1			OR	CHEVROLET	68	F	0	1	150	0	0	0	500	0	0	0

11253.		GULFPORT		GULFPORT-BILOXI RAIL												

REMARKS - SERVICE BY USAF.

11250.		JACKSON		ALLEN C THOMPSON FIELD												
1			OR	DODGE	63	G	2	0	124	0	0	0	1000	0	0	0

REMARKS - 2 OTHER USAF VEHICLES.

11294.1		LAUREL/HATTIESBURG		PINE BELT REGIONAL												
2			INTL/FIRE BOSS	INTERNATIONAL	75	G	2	0	60	500	500	100	500	0	0	30
1			SPECIAL TRUCK (AUX)	DODGE	65	F	0	0	0	0	0	0	150	0	0	60

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN MISSISSIPPI

SITE NO.	CITY	AIRPORT	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
11339.														
70	1	GHC/FIRE BOSS	74	G	2	0	135	50	0	3	450	0	0	0
72	1	PUMPER	75	G	1	0	145	1000	1500	60	0	0	0	0
11375.1	OXFORD	UNIVERSITY-OXFORD												
1	1	INTL/FIRE BOSS	73	G	2	0	175	100	0	6	450	0	0	0
11462.	TUPELO	G.O. LENCNS HUNT												
1	1	FORD	72	G	2	0	45	100	0	6	450	0	0	0

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NORTH CAROLINA

STATION NO.	CITY	AIRPORT	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
16517.5	ASHEVILLE	ASHEVILLE MUNI													
1	OR, ANSUL														
2	FOAM PUMPER														

STATION NO.	CITY	AIRPORT	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
16508.	CHAPLOTTE	DOUGLAS MUNI													
1	OR, ANSUL														

REMARKS - 2 OTHER USAF VEHICLES.

STATION NO.	CITY	AIRPORT	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
16723.	FAYETTEVILLE	FAYETTEVILLE MUNI/GRANNIS FLD													
1	OR, 4X4/ANSUL														
2	FOAM PUMPER														

STATION NO.	CITY	AIRPORT	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
16747.	GOLDSBORO	SEYMOUR JOHNSON AFB													

REMARKS - MILITARY FACILITY.

STATION NO.	CITY	AIRPORT	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
16759.	GREENSBORO	GREENSBORO/HIGH PT/HUNSTON-SALEY FEGOSO													
1	OR														
2	FOAM PUMPER														
3	FOAM PUMPER														

STATION NO.	CITY	AIRPORT	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
16793.	HICKORY	HICKORY MUNI													
1	OR, ANSUL														

STATION NO.	CITY	AIRPORT	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
16815.1	JACKSONVILLE	ALBERT J ELLIS													
1	OR/FOAM PUMPER														

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NORTH CAROLINA

STATE NO.	CITY	AIRPORT	TO	INDEX										
VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2

16836. KINSTON EASTERN FCNL JEI PORT AT STALLINGS FLISO BS

3	1	OR	70	G	0	1	135	100	0	6	900	0	0	0
2	1	FOAM PUMPER	75	G	0	1	75	1500	600	300	0	0	0	0

16906. MAXTON LAURINBURG/MAXTON HER LU

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

16971. NEW BERN SIMPONS NOTT ENH AS

1	1	OR, FIRE-X	75	G	0	1	100	0	0	0	500	0	0	0
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17035. RALEIGH-OURHAM RALEIGH-OURHAM RDU CS

CT 2	1	OR, ANSUL	72	G	1	0	90	100	0	6	1350	0	0	0
CT 4	1	FOAM PUMPER	74	G	1	0	120	3000	1500	500	0	0	0	0
CT 3	1	FOAM PUMPER	77	G	1	0	110	1500	1000	160	0	0	0	0

17066. ROCKY MOUNT ROCKY MOUNT/HILSON RHI AS

1	1	OR, ANSUL	76	G	0	1	130	100	0	6	500	0	0	0
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17109. SOUTHERN PINES PINEHURST/SOUTHERN PINES SOP LU

REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

17211. WILMINGTON NEW HANOVER COUNTY ILH BS

CHIEF 1	1	440/FIRE BOSS	75	G	1	0	135	100	0	6	400	0	0	0
CRASH 2	1	FOAM PUMPER	76	G	1	0	143	1500	1200	160	0	0	0	0

SOUTHERN REGION

CRASH/FLEE/RESCUE EQUIPMENT INVENTORY FOR AIRBORIS IN NORTH CAROLINA

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	ÁFF	FF	DRY	RATE	FOAM	C02
17220.	HINSTON	SALEM															
RESCUE 2	1	OR															
RESCUE 1	1	FOAM PUMPER															

SMITH PEYNOLDS

INT BS

GHC
OSHKOSH

73 6
75 6

1 0 110 50 0 3 450 0 0 0

0

SOUTHEAST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN SOUTH CAROLINA

SITE NO.	CITY	AIRPORT	IO	INDEX	VEHICLE	STA	TYPE	YR	CON	PRO	AUX	PES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2
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22174. CHAPLSTON CHAPLSTON AFB/HUNT CHS CS

REMARKS - MILITARY FACILITY.

22203. COLUMBIA COLUMBIA METROPOLITAN CAE CS

7	1	OR, POWER WAGON	67	G	1	0	120	0	0	0	0	0	0	0	0	0	0	0	0
8	1	CRASH/STRUCTURAL	6A	G	0	0	0	700	500	100	0	0	0	0	0	0	0	0	0
9	1	CRASH	74	G	1	0	124	1500	900	150	0	0	0	0	0	0	0	0	0
10	1	CRASH	74	G	1	0	131	1500	600	150	0	0	0	0	0	0	0	0	0

22276. FLORENCE FLORENCE CITY-COUNTY FLO AAS

1	1	FOAMER/DRY CHEM.	75	G	0	2	93	600	0	110	500	0	0	0	0	0	0	0	0
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22316.1 GREENVILLE/SPARTANBURG GSP CS

RESCUE 1	1	OR, FIRE BOSS	75	G	2	0	90	100	0	0	450	0	0	0	0	0	0	0	0
REDDIPO 4	1	FOAM PUMPER	76	G	1	0	93	1500	1000	300	0	0	0	0	0	0	0	0	0
REDDIPO 1	1	FOAM PUMPER	82	P	1	0	0	1150	750	150	0	0	0	0	0	0	0	0	0
REDDIPO 3	1	TANKER	43	F	0	0	0	1000	250	0	0	0	0	0	0	0	0	0	0

22444. MYRTLE BEACH MYRTLE BEACH AFB HYR DS

REMARKS - MILITARY FACILITY.

22466. NORTH MYRTLE BEACH GRAND STRAND CRE LU

REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

SOUTHERN REGION

CRASH/LIFELINE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TENNESSEE

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PDO	AUX	PES	WATER	PATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE	MANUFACTURER													
22494.	ARISTOL/JOHNSON/KINGSPO	YPI-CITY	YPI	BS												
REDUPO 1	1	OR, ANSUL	FORN		64	G	1	0	132	0	0	0	1000	0	0	0
REDUPO 2	1	FOAM PUMPER	WALTERS		75	G	1	0	165	1500	800	0	0	0	300	0
22899.	CHAFFAHOOGA	LOVELL FIELD	CHA	CS												
E-1	1	OR, ANSUL	GHC		71	G	1	0	120	0	0	0	500	0	0	0
E-2	1	FOAM PUMPER	OSHKOSH		71	G	1	0	130	1000	750	135	0	0	0	0
E-3	1	FOAM PUMPER	OSHKOSH		71	G	1	0	150	1000	750	135	0	0	0	0
22995.	CLARKSVILLE	OUTLAW FIELD	CKV	AS												
1	1	OR	DOUGE		74	G	2	0	45	0	0	0	500	0	0	0
23323.	JACKSON	MCCELLAS FIELD	HKL	AAS												
1	1	OR, ANSUL	ANSUL		69	G	0	1	123	100	0	0	500	0	0	0
2	1	FOAM PUMPER	OSHKOSH		75	G	1	0	73	1000	750	135	0	0	0	0
23646.	KNOXVILLE	HC GREE TYSON	TYG	CS												
UNIT A	1	OR, ANSUL	DOUGE		75	G	2	0	135	100	0	6	450	0	0	0
23397.	MEMPHIS	MEMPHIS INTL	HEH	CS												
A-1	1	OP	INTERNATIONAL		63	G	2	0	130	0	0	0	1000	0	0	0
2	1	FOAM PUMPER	OSHKOSH		74	G	3	0	175	6000	4000	515	0	0	0	0
A-6	1	MURSE/FOAM PUMPER	WALTERS		72	G	3	0	180	5000	800	300	0	0	500	0
A-3	1	FOAM PUMPER (AUX)	WALTERS		63	F	4	0	193	2500	1000	500	0	0	0	0

REMARKS - ALSO TWO OSHKOSH P-2 UNITS OWNED BY USAF.

REMARKS - ALSO 1 USAF 1500-GAL FOAM PUMPER. A-6 AND A-3 ARE AUXILIARY UNITS.

SOUTHEAST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TENNESSEE

SITE NO.	CITY	AIRPORT	IN	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
23121.	NASHVILLE	NASHVILLE METROPOLITAN	BNA	CS																
F-4	1	OR, ANSUL	78	P	2	0	205	0	0	0	0	0	0	0	0	0	0	0	0	0
F-2	1	FOAM PUMPER	73	G	2	0	143	3000	1500	500	0	0	0	0	0	0	0	0	0	0

REMARKS - ALSO TWO USAF P-4 UNITS.

23184.3	SHELBYVILLE	BOHAR FLO/SHELBYVILLE HUNI	SYI	AU																
1	1	OR, PIPE NOSS	74	G	2	0	95	50	0	3	500	0	0	0	0	0	0	0	0	0

23189.	SHYRNA	SHYRNA	MOI	LU																
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REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN PUERTO RICO

SITE NO.	CITY	AIRPORT	ID	INDEX	YR	CON	PRO	AUX	PES	WATER	PATE	APPE	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
53180.1	SAN JUAN	PUERTO RICO INTL														
94	1	OR			75	E	2	0	50	55	0	2	450	0	0	0
51	1	RESCUE	INTERNATIONAL		70	P	2	0	125	3000	1000	0	0	0	500	0
5	1	TRUCK (AUX)	WALTERS		0		0	0	125	0	0	0	0	0	0	0
6	1	MURSE			0		0	0	150	0	0	0	0	0	0	0
9	1	AMBULANCE (AUX)			65	G	2	0	135	2100	1000	200	0	0	0	0
		FOAM PUMPER	SEACRAVE													
53145.	PONCE	HERCENITA														
6	1	OR, PIPE BOSS			75	G	1	0	70	50	0	3	450	0	0	30
2	1	FOAM PUMPER	FIRE BOSS		60	G	2	0	130	1500	1000	0	0	0	180	0
5	1	AMBULANCE (AUX)	WALTERS		77	E	0	0	0	0	0	0	0	0	0	0
			DODGE													
53034.	AGUADILLA	BORINQUEN														
11	1	OR			75	G	1	1	45	30	0	2	300	0	0	0
3	1	FOAM PUMPER	FORD		64	P	2	1	60	1000	750	100	0	0	0	0
0	1	FOAM PUMPER	AMERICAN LAFRANCE		65	F	2	1	60	500	500	40	0	0	0	0
			HARD LAFRANCE													

SOUTHERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN VIRGIN ISLANDS

SITE NO.	CITY	AIRPORT	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2
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55030. CHRISTIANSTED

ALEXANDER HAMILTON

SIX CS

7	1	CFR	OSHKOSH	74	G	2	0	115	1500	1200	100	0	0	0	0
8	1	CFR	OSHKOSH	74	G	2	0	100	1500	1200	100	0	0	0	0
4	1	DRY CHEN (AUX)	FIRE BOSS	66	G	1	0	0	500	0	30	1500	0	0	0
5	1	OR	JEEP	66	G	1	0	130	0	0	0	1000	0	0	0

55027. CHARLOTTE APALTE

HARRY S TRUMAN

STY CS

5	1	OR	WILLYS	73	F	1	0	50	0	0	0	100	0	0	0
2	1	CFR	FIRE BOSS	67	F	1	0	65	0	0	0	1500	0	0	0
7	1	CFR	OSHKOSH	74	G	2	0	120	1500	1200	100	0	0	0	0
8	1	CFR	OSHKOSH	74	G	1	0	120	1500	1200	100	0	0	0	0

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ARKANSAS

SITE NO.	CITY	AIRPORT	TO	INDEX	YR	CON	PRO	AUX	PES	WATER	RATE	APPR	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER													
964.	EL DUEADO		GOODWIN FIELD													
1	1	3/4 TON PICKUP/SKID	ANSUL		73	F	0	2	0	47	0	3	450	3	0	0
975.	FAYETTEVILLE		OFAME FIELD													
1	1	3/4 TON PICKUP/SKID	ANSUL		75	G	3	0	115	47	0	3	450	3	0	30
987.	FORT SMITH		FORT SMITH MUNI													
1	1	FIRE-X														
2	2	WALTERS														
1002.	HARRISON		MOONE COUNTY													
1	1	3/4 TON PICKUP/SKID	FIRE ROSS		74	G	0	2	100	47	0	3	450	5	0	0
1023.	HOT SPINGS		MEMORIAL FIELD													
1	1	QUICK RESPONSE	WALTERS		74	E	2	0	100	500	250	0	500	250	0	15
2	2	STRUCTURAL PUMPER	HACK		55	G	1	0	240	500	250	15	25	0	0	15
1028.21	JACKSONVILLE		LITTLE ROCK AFB													
1035.	JONESBORO		JONESBORO MUNI													
1	1	3/4 TON PICKUP/SKID	FIRE ROSS		74	G	2	0	100	47	0	3	450	5	0	0

REMARKS - MILITARY FACILITY.

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ARKANSAS

SITE NO.	CITY	AIRPORT	ID	INDEX											
VEHICLE	SIA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	PFS	WATER	PATE	AFFF	DRY	RATE	FOAM	CO2

1056.	LITTLE ROCK	ADAMS FIELD	LIT	CS											
1	QUICK RESPONSE CFR	FIRE BOSS	73	E	2	0	100	500	450	30	300	5	0	0	0
2	WATER/AFFF CFR	INTERN	76	E	3	0	100	1500	750	200	0	0	0	0	
3	WATER/AFFF CFR	INTERN	76	E	2	0	100	1500	750	200	0	0	0	0	

1142.	PINE BLUFF	GRIDER FIELD	PBF	AU										
1	3/4 TON PICKUP/SKID	ANSUL	74	G	0	2	100	47	0	3	450	3	0	0

1108.	TEXARKANA	TEXARKANA MUNI/HERB FLD	TXK	AAS										
CRASH 1	1	CFR	72	F	0	3	177	500	250	50	500	4	0	15

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN LOUISIANA

SITE NO.	CITY	AIRPORT	IO	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	PAT	APPE	DRY	RATE	FOAM	CO2
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7411.	ALEXANDRIA	ENGLAND AFB	AEX	AU																
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REMARKS - MILITARY FACILITY.

7413.	ALEXANDRIA	ESLER REGIONAL	ESF	CS																
1	OR	WALTERS	74	0	180	1125	0	66	0	0	0	0	0	0	0	0	0	0	0	0
2	OR	WALTERS	74	0	240	1125	0	66	0	0	0	0	0	0	0	0	0	0	0	0

7425.	BATON ROUGE	RYAN	BTR	CS																
1	000 100/500	WALTERS	75	E	2	180	1000	790	110	500	250	0	0	0	0	0	0	0	0	60
2	800 1000	WALTERS	75	E	2	180	1000	790	110	0	0	0	0	0	0	0	0	0	0	60

7500.	LAFAYETTE	LAFAYETTE REGIONAL	LFI	AAS																
CFR 1	1	OR	76	E	1	0	180	500	0	100	0	0	0	0	0	0	0	0	0	30
CFR 2	1	CFR	76	E	2	0	180	1000	0	100	0	0	0	0	0	0	0	0	0	0

7590.1	LAFAYETTE	LAKE CHARLES MINI	LCH	OS																
A	1	ANSUL/FORD CHASSIS	0	E	0	1	180	0	0	0	1000	500	0	0	0	0	0	0	0	120
B	1	FIREX/INTL CHASSIS	0	E	0	1	240	500	100	0	0	0	0	0	0	0	0	0	0	40
C	1	OSHKOSH H-1000	0	E	0	1	180	1000	750	150	0	0	0	0	0	0	0	0	0	60

7600.	LEESVILLE	FORT POLK AAF	POE	AU																
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REMARKS - MILITARY FACILITY.

7650.	MONROE	MONROE REGIONAL	HLU	CS																
1	1	CFR	0	E	2	0	0	1150	750	150	0	0	0	0	0	0	0	0	0	150
2	1	FIREX	79	E	1	0	120	1500	750	200	0	0	0	0	0	0	0	0	0	0
3	1	LI NT DRY CHER	0	E	1	0	120	150	0	0	0	0	0	0	0	0	0	0	0	0

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN LOUISIANA

SITE NO.	CITY	AIRPORT	IO	INDEX										
VEHICLE	SIA	TYPE	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2

7670. NEW IBERIA ACADIANA REGIONAL ARA LU
REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

7675. NEW ORLEANS NEW ORLEANS INIL/NOISANT FLD/ MSY DS

6	1	OR	56	G	1	0	180	0	0	0	0	300	250	0	50
5	1	CFR	65	G	2	0	180	750	500	0	0	60	0	0	0
4	1	OR	65	G	2	0	180	0	0	0	0	500	240	0	75
3	1	FORD F1000	67	G	1	0	270	4800	500	0	0	0	0	200	0
2	1	CFR	75	G	3	0	240	1300	600	250	0	0	0	0	30
7	1	CFR	75	G	2	0	240	1200	600	200	0	0	0	0	0
8	1	CFR	75	G	2	0	240	1000	600	110	0	500	240	0	0

7676. NEW ORLEANS LAKEFRONT NEW LU

S-2	1	CFR	0	0	0	0	0	1000	0	135	0	450	0	0	0
S-3	1	LT CFR	0	0	0	0	0	100	0	6	0	450	0	0	0
S-4	1	CFR (AM LAFRANCE)	0	0	0	0	0	750	0	65	0	400	0	0	0
4	1	RESCUE VAN	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1	40 FOOT BOAT	0	0	0	0	0	0	0	0	0	0	0	0	0
6	1	HELICOPTER	0	0	0	0	0	0	0	0	0	0	0	0	0

7735. SHREVEPORT SHREVEPORT REGIONAL SHV CS

CRASH 1	1	CRASH	70	G	2	0	115	1500	750	180	0	0	0	0	999
CRASH 2	1	CRASH	74	G	2	0	121	1500	750	140	0	0	0	0	20
ENGINE 16	1	STRUCTURAL PUMPER	61	G	5	0	146	500	1000	30	0	0	0	0	200

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW MEXICO

SITE NO.	CITY	AIRPORT	IO	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	PATE	FOAM	CO2
14524.	ALAMOGORDO	ALAMOGORDO/WHITE SANDS REGIONAL	ALM	AS																
6	1	4X4 P/U, FIRE BOSS	CHEVROLET	73	E	0	2	180	47	0	3	450	0	0	0	0	0	0	0	0
14532.	ALBUQUERQUE	ALBUQUERQUE INTL	ABQ	CS																
REMARKS - SERVICE BY USAF																				
14559.	CARLSBAD	CAVERN CITY AIR IRL	CNM	AS																
1	1	CFR	FMO	52	F	1	0	180	550	500	43	500	8	0	0	0	0	0	0	0
14577.	CLOVIS	CANNON AFS	CVS	AU																
REMARKS - MILITARY FACILITY.																				
14578.	CLOVIS	CLOVIS MUNI	CVN	AS																
1	1	CFR, CR4-500/500	YANKEE WALKER	74	E	1	1	0	500	250	30	500	8	0	0	0	0	0	0	0
14607.	FARMINGTON	FARMINGTON MUNI	FMN	AS																
RESCUE 1	1	CFR	CHEVROLET	77	E	1	0	150	100	0	6	450	8	0	0	0	0	0	0	0
14612.	GALLUP	SENATOR CLAPKE FIELD	GUP	AS																
7	1	3/4 TON 4X4 PICKUP	FORD	73	G	1	0	180	96	60	3	450	8	0	0	0	0	0	0	0
14621.	HOBBS	LEA COUNTY/HOBBS/	HOB	AS																
1	1	CFR	FIRE BOSS	73	E	0	3	0	500	250	100	500	8	0	0	0	0	0	0	0

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEW MEXICO

SITE NO.	CITY	AIRPORT	VEHICLE	STA	TYPE	VR	CON	PRO	AUX	RES	WATER	PAYE	DIFF	DRY	RATE	FORM	C02
14719.	ROSSELL	ROSSELL INDUSTRIAL AIP CENTER															
CRASH 1	1	ANSUL MAGNUM 480	69	G	2	0	150	120	100	12	1350	25	0	0	0	15	
CRASH 2	1	H-1000	76	E	1	0	90	1000	750	135	0	0	0	0	0	0	
14737.	SILVER CITY	SILVER CITY AND GRANT CO															
6	1	LG P/U, FIRE BOSS	73	E	0	1	180	94	50	6	450	9	0	0	0	0	

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN OKLAHOMA

SITE NO.	CITY	AIROPORT	IO	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	PES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
18877.	CLINTON	CLINTON-SHEPHERD	CSH	AU																
1		P-2	64	G	3	0	180	2000	1500	200	0	0	0	0	0	0	0	0	0	0
2		O-11B	60	G	3	0	180	1000	500	100	0	0	0	0	0	0	0	0	0	0
3		P-2	64	G	3	0	180	2000	1500	200	0	0	0	0	0	0	0	0	0	0
5		RESCUE	53	F	2	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0
6		P-6	51	F	1	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0
8		530B PUMPER	75	F	3	0	180	400	500	0	0	0	0	0	0	0	0	0	0	0

REMARKS - FAA/USAF REIMBURSEMENT

18953.	ENID	ENID WOODRING MUNI	WDG	AS																
1		4X4 H00 200/FIRE B	75	G	0	2	150	94	0	6	450	6	0	0	0	0	0	0	0	0

18954.	ENID	VANCE AFB	FND	AU																
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REMARKS - MILITARY FACILITY.

18970.	FORT SILL	HENRY POST AAF	FSI	AU																
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REMARKS - MILITARY FACILITY.

19063.	LAHON	LAHON MUNI	LAW	NS																
1		CFR	74	G	2	0	180	500	250	30	508	8	0	0	0	0	0	0	0	0
3		STRUCTURAL PUMPER	73	G	1	0	180	500	250	30	0	0	0	0	0	0	0	0	0	0

19380.	HCALESTER	HCALESTER MUNI	HLC	AS																
1		PICK-UP	75	G	2	0	180	47	0	3	450	6	0	0	0	0	0	0	0	0

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN OKLAHOMA

SITE NO.	CITY	AIRPORT	INDEX	YR	CON	PRO	AUX	RES	WATER	PATE	AFFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER												

19136.		OKLAHOMA CITY		WILL ROGERS WORLD		OKC		CS							
RESCUE 2	1	OR	WALTERS	70	E	2	0	100	0	0	0	500	0	0	0
RESCUE 3	1	P-4	OSHKOSH	70	G	4	0	100	1500	1200	100	40	0	0	0
5	1	OR	FIRE BOSS	66	F	2	0	100	0	0	0	500	0	0	15
6	1	P-2	FWD	72	G	4	0	100	2500	0	200	0	0	0	0
7	1	H-1500	WALTERS	70	E	2	0	100	1500	1400	100	0	0	0	60
8	1	H-1500	WALTERS	70	E	2	0	100	1500	1400	100	0	0	0	60
9	1	RUNWAY FOAMER	INTERNATIONAL	63	E	1	0	100	1500	500	250	0	0	200	0

19166.		PONCA CITY		PONCA CITY MUNI		PNC		AS							
101	1	3/4 ION. AM LAERNC	INTERNATIONAL	75	G	2	0	100	94	50	6	450	4	0	0

19241.		STILLWATER		STILLWATER MUNI		SHO		AU							
1	1	F350	FORD	73	E	0	2	100	94	0	6	450	5	0	0

19243.		TULSA		TULSA INTL		TUL		CS							
50	1	1H1700, AHS-HAG 400	INTERNATIONAL	72	E	2	0	100	200	100	12	1300	25	0	20
51	1	C82500	YANKEE HALTER	60	G	2	0	100	2500	1000	500	60	0	0	0
52	1	H-4000	OSHKOSH	77	E	2	0	100	4000	1000	500	60	0	0	0
53	1	CONRAD, SUB SEDAN	GHC	75	E	1	0	100	0	0	0	60	0	0	0
31	1	STRUCTURAL PUMPER	BOARDFMAN	70	E	4	0	100	500	1000	0	60	0	0	20

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TEXAS

SITE NO.	CITY	AIRPORT	VR	CON	PRO	AUX	PES	WATER	RATE	AFFF	DRY	RATE	FOAM	C02
VEHICLE	SIA	TYPE	MANUFACTURER											

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TEXAS

SITE NO.	CITY	AIRPORT	IC	INDEX										
VEHICLE	STA	TYPE	YR	CON	PRO	AUX	PES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2

23502.	BROWNWOOD	BROWNWOOD MUNI												
1	1	1.5 ION 4WD	74	0	0	0	0	47	0	3	450	0	0	0
		FIRE BOSS												

23635.	COLLEGE STATION	EASTWOOD FIELD												
144	1	PUMPER	0	0	0	0	0	750	1000	50	0	0	0	0
2	1	TRAILERABLE RIG	0	E	0	0	0	0	0	0	450	0	0	0

23657.2	CORPUS CHRISTI	CORPUS CHRISTI INFL												
1	1	4WD	0	1	0	50	500	250	30	500	0	0	0	0
2	1	CFR	0	2	0	100	1500	750	90	0	0	0	0	0
3	1	CFR	0	1	0	50	500	190	30	0	0	0	0	0

23710.6	DALLAS-FORT WORTH	DALLAS-FORT WORTH REGIONAL												
11	1	THIN AGENT	73	E	1	0	131	400	50	50	1000	0	0	0
12	1	CB 3000	73	E	3	0	160	3000	1500	500	0	0	0	0
13	1	PUMPER	73	E	3	0	0	500	1250	20	15	0	0	40
14	1	75-FI SNORKEL	73	E	3	0	0	0	0	0	15	0	0	0
21	2	THIN AGENT	73	E	1	0	145	400	50	50	1000	0	0	0
22	2	CB 3000	73	E	3	0	160	3000	1500	500	0	0	0	0
23	2	PUMPER	73	E	3	0	0	500	1250	20	15	0	0	40
31	3	THIN AGENT	73	E	1	0	97	400	50	50	1000	0	0	0
32	3	CB3000	73	E	3	0	112	3000	1500	500	0	0	0	0
33	3	PUMPER	73	E	3	0	0	500	1250	20	15	0	0	40

23713.	DALLAS	DALLAS LOVE FIELD												
2	1	CFR	72		2	0	0	7000	1700	700	0	0	0	0
3	1	LOADSTAR 17007EBS	69		2	0	0	200	0	12	1500	0	0	0
4	1	WATER HOLDER FOR 1	71		0	0	0	4000	0	0	0	0	225	0
1	1	CFR	63		2	0	0	2500	0	0	0	0	500	400

SOUTHWEST REGION
CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TEXAS

SITE NO.	CITY	AIRPORT	ID	INDEX	VEHICLE	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	G02
23824 EL PASO																			
												ELP	CS						
ENERGY	1	06. 6X6			64	E		2	0	180	0	0	0	1500	30	0	0	0	50
JUNBO	1	CFR			66	E		2	0	210	3000	1500	500	50	0	0	0	0	50
WATER BOY	1	CFR/NURSE			51	F		1	0	240	2000	250	200	50	0	0	0	0	50
SHOKEY	1	CFR			70	E		2	0	180	3000	1500	500	50	0	0	0	0	450
23827 FORT WORTH																			
												FTW	LU						
1	1	H-1500			79	E		2	0	0	1500	0	0	0	0	0	0	0	0
2	1	0-10A			53			1	0	0	0	0	0	0	0	0	0	0	0
3	1	STRUCTURAL, F-7			52			1	0	0	500	0	0	0	0	0	0	0	0
4	1	OR, F-100 PICKUP			73			0	0	0	0	0	0	0	0	0	0	0	0
23915 GALVESTON																			
												GLS	LU						
23985 GREENVILLE																			
24012 HARLIAGEN																			
CR1	1	OR, 4X4			70			0	0	180	300	150	50	500	0	0	0	0	30
CR2	1	CFR, 1500 UD0G			73			0	0	180	1500	800	180	0	0	0	0	0	120
24071 HOUSTON																			
1	1	CRASH			70	E		4	0	120	800	1000	50	1540	0	0	0	0	40
2	1	CRASH			71	E		2	0	180	2000	1000	220	40	0	0	0	15	15
3	1	CRASH			67	E		2	0	0	2000	0	0	60	0	0	150	0	0
4	1	PUNPER			62	G		2	0	0	350	0	0	20	0	0	0	0	20

REMARKS - LIMITED CERTIFICATE. NO CFR EQUIPMENT AT THE AIRPORT.

REMARKS - LIMITED CERTIFICATE. EQUIPMENT AND PERSONNEL PROVIDED BY E-SYSTEMS.

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TEXAS

SITE NO.	CITY	VEHICLE	STA	TYPE	AIRPORT	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	WRY	QATE	FOAM	GOS
HOUSTON																		
24071.1	HOUSTON	HOUSTON INTERCONTINENTAL																
IAH	ES																	
963	1	CFR				YANKEE WALTER	67		2	0	0	3000	0	500	0	0	0	0
964	1	CFR				YANKEE WALTER	67		2	0	0	3000	0	500	0	0	0	0
965	1	SUNHAY FOAMER				YANKEE WALTER	67		1	0	0	2000	750	0	0	150	0	0
961	1	DRY CHEMICAL				INTERNATIONAL	68		1	0	0	0	0	2500	0	0	0	0
962	1	DRY CHEMICAL				INTERNATIONAL	68		1	0	0	0	0	2500	0	0	0	0
554	1	BOOSTER				INTERNATIONAL	67		1	0	0	500	0	0	0	0	0	0
254	1	PUMPER				WARD LAFRANCE	67		1	0	0	500	1000	0	0	0	0	0
8	1	ROLLAGON				WARD LAFRANCE	76		1	0	0	250	0	40	150	0	0	0
966	1	ARMY JEEP				JEEP	54		1	0	0	0	0	0	0	0	0	60
563	2	BOOSTER				GOUGE	64		1	0	0	350	0	0	0	0	0	0
363	2	75-FT LADDER TRUCK				WARD LAFRANCE	71		1	0	0	500	0	0	0	0	0	0
515	2	WATER CARRIER				INTERNATIONAL	60		1	0	0	2500	0	0	0	0	0	0
263	2	PUMPER				WARD LAFRANCE	66		1	0	0	300	0	20	0	0	0	0
264	2	PUMPER				FWO	60		1	0	0	250	0	0	0	0	0	0
113	2	4-DR SEDAN				DOODGE	74		1	0	0	0	0	0	0	0	0	0
116J	2	AMBULANCE				CHEVROLET	76		1	0	0	0	0	0	0	0	0	0

24194.	LAREDO	LAREDO INTERNATIONAL																
LAREDO	LPD	AAS																
E-7	1	CR (PPIHE)				YANKEE WALTER	74	E	2	0	106	500	250	100	500	0	0	15
E-6	1	PUMPER (BACK-UP)				WARD LAFRANCE	73	E	3	0	0	500	1000	25	30	0	0	15
R-6	1	PUMPER (STRUCT.)				AMERICAN LAFRANCE	53	F	0	0	0	300	750	0	0	0	0	15

24239.	LONGVIEW	GREGG COUNTY																
LONGVIEW	GGG	AU																
1	1	CFR				YANKEE WALTER	0	G	0	0	0	500	250	100	500	0	0	0
2	1	MODIFIED C-125					0	F	0	0	0	350	0	15	60	0	0	200
3	1	PICKUP					0	F	0	0	0	0	0	0	400	0	0	0

24245.	LUBBOCK	LUBBOCK INTL																
LUBBOCK	LBB	GS																
1	1	LIGHT RESCUE				FIRE BOSS	0		3	0	0	200	0	12	1500	0	0	0
2	1	PUMPER					0		4	0	0	500	1250	30	0	0	0	0
3	1	CRASH					0		1	0	0	1500	750	150	0	0	0	0
4	1	CRASH					0		1	0	0	1500	750	150	0	0	0	0
5	1	PUMPER					0		0	0	0	750	750	45	0	0	0	0

SOUTHWEST REGION
CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TEXAS

SITE NO.	CITY	AIRPORT	STA	TYPE	YR	CON	PRO	AUX	RES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE														
24260. MCALLEN MILLER INTL																
1	1	CFR			0		2	0	0	1500	0	100	500	0	0	0
2	1	CFR		INTERNATIONAL	0		1	0	0	750	0	0	0	0	0	0
3	1	STRUCTURAL PUMPER			0		1	0	0	750	0	25	0	0	0	0
24353. MIDLAND MIDLAND REGIONAL																
1	1	OFC 1500			73	0	3	0	112	1500	1000	150	0	0	0	15
2	1	JEEP		WALTERS	56	0	0	0	0	0	0	0	300	0	0	0
3	1	FIRE BOSS		HILLYS	27	0	0	0	0	360	0	30	1500	10	0	15
4	1	PUMPER		CHEVROLET	51	0	0	0	115	500	750	30	0	0	0	15
24440. PARIS COX FLD																
1	1	PICKUP		FIRE BOSS	0		0	1	100	47	0	3	250	8	0	0
24693. SAN ANGELO HATNIS FIELD																
CFR 1	1	D-SHF		FIRE BOSS	74	0	1	3	180	500	250	100	500	8	0	0
24704. SAN ANTONIO KELLY AFB																
REMARKS - MILITARY FACILITY.																
24709. SAN ANTONIO SAN ANTONIO INTL																
1910	1	CFR (RESERVE)		YANKEE WALTER	63	0	0	0	165	2500	1000	500	30	0	0	15
1922	1	CFR		FIRE BOSS	75	0	2	0	120	500	250	100	500	0	0	20
1913	1	CFR		OSHKOSH	75	0	3	0	120	1500	1200	100	30	0	0	0
1934	1	CFR		OSHKOSH	75	0	2	0	120	1500	1200	100	30	0	0	0
1916	1	COMMANO/FIRST AID		FORD	77	0	1	0	90	0	0	0	25	0	0	0
1926	1	ADMINISTRATIVE		INTERNATIONAL	75	0	1	0	90	0	0	0	10	0	0	0

SOUTHWEST REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN TEXAS

SITE NO.	CITY	AIRPORT	INDEX
VEHICLE	STA	TYPE	MANUFACTURER

VEHICLE	STA	TYPE	MANUFACTURER	VR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
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24895. TEMPLE DRAUGHON-FILLER MUNI TPL AAS

C-5	1	THIN AGENT	FIRE BOSS	71	E	0	2	90	85	0	5	750	0	0	0
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24947. TYLER POUNDS FIELD TYR AU

1	1	NO. 2050A PUMPER	INTERNATIONAL	76		1	0	165	500	750	100	600	0	0	0
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24976. WACO WACO-MADISON COOPER ACI AU

RESCUE 1	1	FIRE BOSS	FIRE BOSS	0		1	0	180	500	0	100	450	0	0	0
RESCUE 2	1	CFR	FORC	41		1	0	180	500	400	0	0	0	0	0
RESCUE 3	1	CFR	AMERICAN LAFRANCE	53		0	0	160	400	750	0	0	0	0	0

25023. WICHITA FALLS SHEPPARD AFB/WICHITA FALLS MUNI SPS BS

REMARKS - MILITARY FACILITY.

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ARIZONA

SITE NO.	CITY	AIRPORT	YR	CN	PRO	AUX	PES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER											
674.	FLAGSTAFF	PULLIAM	FLG	AS										
1	1	RESCUE	76	E	0	2	420	750	1500	30	0	0	0	0
2	1	PESQUE	57	G	0	1	420	750	750	0	0	0	0	0
3	1	RESCUE	70	G	0	1	420	0	0	0	0	0	0	0
4	1	CRASH/RESCUE	74	E	0	1	160	450	0	27	500	0	100	0
730.1	GRAND CANYON	GRAND CANYON NATIONAL PARK	GCH	AAS										
1	1	CFO	75	E	0	3	150	1500	1000	160	300	0	0	0
2	1	P-2 4WD	53	G	0	1	150	50	0	3	450	0	0	0
3	1	HALF TON 4WD P/U	69	G	0	1	0	80	0	3	150	0	0	0
716.	KINGMAN	MOHAVE COUNTY	IGH	AS										
49	1	F-100 PICKUP	65	G	0	5	160	0	0	0	500	0	0	0
717.75	LAKE HAVASU CITY	LAKE HAVASU CITY	LHU	AU										
17	1	ONE TON 4WD	73	E	2	0	160	0	0	0	800	13	0	20
729.	HARANA	HARANA AIRPARK	HZJ	LU										
1	1	PUMPER	64		0	1	160	500	0	0	300	0	0	0
742.2	PAGE	PAGE MUNICIPAL	PGA	AS										
LG-9790	1	3/4 TON RESCUE P/U	68	G	0	3	240	0	0	0	0	0	0	0
LG-9820	1	PUMPER	45	G	0	3	120	150	750	0	1000	20	0	0
LG-9830	1	PUMPER	72	G	1	3	240	500	1000	25	0	0	0	0
LG-9840	1	TANKER	67	G	0	3	180	1000	200	0	0	0	0	0
LG-9850	1	PUMPER	52	G	0	6	240	500	1000	0	0	0	0	0
LG-9860	1	3/4 TON PICKUP	73	G	1	0	210	150	0	0	0	0	0	0

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN ARIZONA

SITE NO.	CITY	AIRPORT	INDEX
VEHICLE	STA	TYPE	MANUFACTURER
YR	CON	PRO	AUX
PATE	WATER	PATE	AFFF
DRY	RATE	FOAM	CO2

754. PHOENIX

PHOENIX SKY HARBOR INTL

PHX ES

1	OR, POWER WAGON	DONCE	63	F	2	0	95	0	0	1000	100	0	0
R1	CFB	YANKEE WALTER	75	E	3	0	67	3000	1000	500	0	0	0
F2	NURSE TANKER	YANKEE WALTER	63	G	1	0	112	2900	950	250	0	0	0
NT1	CFB	YANKEE WALTER	69	G	2	0	119	3000	1000	500	0	0	0
F1	CFR, RESERVE	YANKEE WALTER	60	F	0	0	0	1500	500	160	0	0	0

816. TUCSON

TUCSON INTL

TUS DS

1	4X4 CRASH	WALTERS	75	G	2	2	70	3000	0	500	0	0	0
2	4X4 CRASH, OR <td>INTERNATIONAL <td>75</td> <td>G <td>1</td> <td>1</td> <td>60</td> <td>100 <td>0</td> <td>6</td> <td>1000 <td>0</td> <td>0</td> </td></td></td></td>	INTERNATIONAL <td>75</td> <td>G <td>1</td> <td>1</td> <td>60</td> <td>100 <td>0</td> <td>6</td> <td>1000 <td>0</td> <td>0</td> </td></td></td>	75	G <td>1</td> <td>1</td> <td>60</td> <td>100 <td>0</td> <td>6</td> <td>1000 <td>0</td> <td>0</td> </td></td>	1	1	60	100 <td>0</td> <td>6</td> <td>1000 <td>0</td> <td>0</td> </td>	0	6	1000 <td>0</td> <td>0</td>	0	0
3	8X8 CRASH <td>OSHKOSH <td>78</td> <td>E <td>2</td> <td>1</td> <td>71</td> <td>3000 <td>0</td> <td>515 <td>0</td> <td>0</td> <td>0</td> </td></td></td></td>	OSHKOSH <td>78</td> <td>E <td>2</td> <td>1</td> <td>71</td> <td>3000 <td>0</td> <td>515 <td>0</td> <td>0</td> <td>0</td> </td></td></td>	78	E <td>2</td> <td>1</td> <td>71</td> <td>3000 <td>0</td> <td>515 <td>0</td> <td>0</td> <td>0</td> </td></td>	2	1	71	3000 <td>0</td> <td>515 <td>0</td> <td>0</td> <td>0</td> </td>	0	515 <td>0</td> <td>0</td> <td>0</td>	0	0	0

819. WINSLOW

WINSLOW MUNI

INH AS

1	3/4 TON P/U, SKID	CHEVROLET	74	0	1	150	47	50	3	450	8	0	0
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841. YUMA

YUMA MCAS/YUMA INTL

YUH AS

REMARKS - MILITARY FACILITY.

0. PRESCOTT

PRESCOTT MUNICIPAL

LS

274	CRASH	WALTERS	57	G	1	0	180	950	1500	200	30	15	0	20
120	PUMPER	FWD	63	G <td>1</td> <td>0</td> <td>180 <td>600 <td>1250 <td>15 <td>30 <td>15 <td>0 <td>20</td> </td></td></td></td></td></td></td>	1	0	180 <td>600 <td>1250 <td>15 <td>30 <td>15 <td>0 <td>20</td> </td></td></td></td></td></td>	600 <td>1250 <td>15 <td>30 <td>15 <td>0 <td>20</td> </td></td></td></td></td>	1250 <td>15 <td>30 <td>15 <td>0 <td>20</td> </td></td></td></td>	15 <td>30 <td>15 <td>0 <td>20</td> </td></td></td>	30 <td>15 <td>0 <td>20</td> </td></td>	15 <td>0 <td>20</td> </td>	0 <td>20</td>	20
1	PUMPER	INTERNATIONAL	48	F <td>1</td> <td>0</td> <td>180 <td>500 <td>500 <td>0</td> <td>20 <td>15 <td>0 <td>20</td> </td></td></td></td></td></td>	1	0	180 <td>500 <td>500 <td>0</td> <td>20 <td>15 <td>0 <td>20</td> </td></td></td></td></td>	500 <td>500 <td>0</td> <td>20 <td>15 <td>0 <td>20</td> </td></td></td></td>	500 <td>0</td> <td>20 <td>15 <td>0 <td>20</td> </td></td></td>	0	20 <td>15 <td>0 <td>20</td> </td></td>	15 <td>0 <td>20</td> </td>	0 <td>20</td>	20

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CALIFORNIA

SITE NO.	CITY	AIRPORT	INDEX
VEHICLE	STA	TYPE	MANUFACTURER

YR	CON	PRO	AUX	RES	WATER	RATE	DIFF	DRY	RATE	FOAM	CO2
1255.1	ARCATA/EUREKA/	ARCATA	ACV	OS							

MEADOWS FIELD	BFL	OS
1291. XRAY 412	1	150
XRAY 91	1	210
T63	1	440
E63	1	445
E64	1	1000
I64	1	1250
E61	1	1000

BLH	AS
1336. ALTYNE	1
71-105	1
657	1
64-120	1

HOLLYWOOD/BURBANK	RUR	CS
1353. BURBANK	1	160
1	1	160
2	1	160
3	1	160
4	1	160
5	1	160
6	1	160
7	1	160
8	1	160
10	1	160

CHICO	CIC	AAU
1395. CHICO	1	150
1	1	150
2	1	150
3	1	150

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CALIFORNIA

SITE NO.	CITY	AIRPORT	ID	INDEX											
VEHICLE	STA	TYPE	MANUFACTUREP	YR	CON	PRO	AUX	RES	WATER	RATE	AFFF	DRY	RATE	FOAM	CO2

1437. CONCORD BUCHANAN FIELD

MOBILE 1	1	1 TON 4WD PICKUP	CHEVROLET	77	G	1	0	75	50	60	3	450	5	0	0
MOBILE 3	1	3/4 TON PICKUP	DODGE	78	G	1	0	75	0	0	0	300	5	0	0

1464. CRESCENT CITY JACK MCNABARA FIELD

1	1	3/4 TON PICKUP	FORD	74	G	0	1	100	50	0	0	500	0	3	0
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1591. FRESNO FRESNO AIR TERMINAL

1	1	OR, 20071350	YANKEE WALTER	75	G	1	0	150	200	0	12	1350	0	0	0
2	1	1250-00-1C	WARD LAFRANCE	75	G	1	0	132	1000	1250	200	0	0	0	0
3	1	C14-3000-CBK	WALTERS	75	G	1	0	130	3000	1800	500	0	0	0	0

1683. IMPERIAL IMPERIAL COUNTY

62	1	H-1500	OSHKOSH	75	G	1	1	25	1500	1000	180	60	0	0	0
63	1	CFR CORR.	WARD LAFRANCE	54	F	0	1	30	500	1000	50	0	0	0	0
60	1	CFR TWIN AGENT	DODGE	74	G	1	1	20	240	180	25	350	0	0	20
61	1	JEEP	WILLIS	56	G	0	1	20	0	0	0	300	0	0	0
43	1	TANKER	DODGE	74	G	1	0	45	2500	400	0	0	0	0	0

1779. LITTLE RIVER HENDOCINO COUNTY

1779.	LITTLE RIVER			048	LU
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REMARKS - LIMITED CERTIFICATE. NO CFF EQUIPMENT AT THE AIRPORT.

1794. LONG BEACH LONG BEACH/DAUGHERTY FIELD

161	1	CRASH	YANKEE WALTER	60	G	1	0	180	1600	500	300	60	0	0	30
136	1	CPASH	KLINE	73	G	1	0	240	3500	1000	500	30	0	0	15
192	1	OR	DODGE	74	G	2	0	180	100	150	6	450	10	0	10
149	1	PUMPER	HACK	67	G	4	0	180	500	100	10	30	0	0	15

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CALIFORNIA

SITE NO.	CITY	AIRPORT	IO	INDEX	VEHICLE	STA	TYPE	MANUFACTURER	YR	CON	PRO	AUX	PES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
1010.	LOS ANGELES	LCS ANGELES INTL	LAX	ES																
60056	1	TRIPLE	60	G	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60057	1	TRIPLE	59	G	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60159	1	100-FT AERIAL	63	G	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60022	1	CFR (PRESERVE)	59	G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60014	1	YANKEE (PRESERVE)	59	G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11189	1	AMBULANCE	69	G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60221	2	CFR	69	E	3	0	200	3000	1500	50	20	2	0	0	0	0	0	0	0	0
60222	2	CFR	69	E	3	0	200	3000	1500	100	20	2	0	0	0	0	0	0	0	0
60223	2	RIV	69	E	3	0	200	3000	1500	100	20	2	0	0	0	0	0	0	0	0
60323	2	YANKEE WALTER	77	E	3	0	163	400	500	24	300	20	0	0	0	0	0	0	0	0
60141	2	TRIPLE COMD.	62	E	5	0	0	400	1500	0	20	2	0	0	0	0	0	0	0	0
60170	2	TENDER	69	G	3	0	170	0	0	0	100	161	0	0	0	0	0	0	0	375
60141	2	CFR	79	E	2	0	168	3000	1500	515	0	0	0	0	0	0	0	0	0	0
60342	2	CFR	79	E	2	0	158	3000	1500	515	0	0	0	0	0	0	0	0	0	0

1006.	HERTED	HERCED PUNI	HCE	AAU																
1	1	WALTERS	76	E	2	0	100	1500	750	150	0	0	0	0	0	0	0	0	0	0

1006.	MODESTO	MODESTO CITY-CO ARPT/HAPRY SHAM FLD HOD	AAU																	
1	1	LIGHT RESCUE	70	G	2	0	90	100	60	6	900	10	0	0	0	0	0	0	0	0
2	1	PUMPER	77	G	2	0	100	1500	1000	180	0	0	0	0	0	0	0	0	0	0

1006.	MONTAGUE	SISKIYOU COUNTY	SIY	LU																
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REMARKS - LIMITED CERTIFICATE. NO CFP EQUIPMENT AT THE AIRPORT.

1014.	MONTPELIER	MONTPELIER PENINSULA	MRY	CS																
2	1	3/4 TON, 150, 4X4	73	E	1	0	35	47	50	3	520	7	0	0	0	0	0	0	0	20
3	1	GMC	74	E	2	0	60	1050	750	200	30	2	0	0	0	0	0	0	0	15
4	1	16 TON, 5010, 4X4	74	E	2	0	60	1050	750	200	30	2	0	0	0	0	0	0	0	15

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CALIFORNIA

SITE NO.	CITY	AIRPORT	IO	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTUREP													

1971.		OAKLAND	METROPOLITAN OAKLAND INTL	OAK	CS											
1		1	PATHFINDER	75	G	1	1	160	3500	2100	250	0	0	250	0	0
2		1	PATHFINDER	75	G	1	1	160	3500	2100	250	0	0	250	0	0
3		1	COAST APP.	63	G	1	1	157	0	0	0	900	15	0	0	0
4		1	LIGHT RESCUE	67	G	1	1	179	200	180	12	1350	25	0	0	0
5		1	ANSUL	67	G	1	1	157	200	180	12	1350	25	0	0	0

1986.		ONTARIO	ONTARIO INTL	ONT	DS											
F245		1	CFR	75	G	1	0	170	3000	1500	500	0	0	0	0	0
F140		1	YANKEE WALTER	71	G	1	0	170	3000	1500	500	0	0	0	0	0
F142		1	QUICK DASH, FIRE-X	71	G	1	0	155	400	180	50	1000	999	0	0	0
F142		1	YANKEE WALTER	57	F	1	0	175	1400	500	210	0	0	0	0	0
F145		1	YANKEE WALTER	52	G	1	0	170	1000	750	155	0	0	0	0	0

2001.		OXNARD	OXNARD	OXR	AS											
1		1	FWD, ANSUL MAGNUM	69		1	0	75	100	0	6	450	0	0	0	0

2013.		PALMDALE	PALMDALE PP FLT 1ST INST, AF PLANT 4PHD	AS												
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2017.		PALM SPRINGS	PALM SPRINGS HUNI	PSP	CS											
A151		1	FWD	71	G	1	0	120	500	350	100	500	500	0	0	0
B152		1	CFR	74	G	1	0	120	1500	1000	300	0	0	0	0	0
C153		1	CFR	74	G	1	0	120	1500	1000	300	0	0	0	0	0
D122		1	TRIPLE	72	G	2	0	120	500	1500	0	0	0	0	0	0

2032.		PASO ROBLES	PASO ROBLES HUNI	PRB	LU											
201		1	CFR PICKUP	9		0	0	140	50	0	4	450	0	0	0	0

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CALIFORNIA

SITE NO.	CITY	VEHICLE	STA	TYPE	AIRPORT	MANUFACTURER	YR	CON	PRO	AUX	RES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2

REDDING

2	1	CFR			INTERNATIONAL		54	G	0	2	150	200	60	100	960	0	0	0
1	1	CRASH			OSHKOSH		75	E	0	2	120	1500	0	180	0	0	0	0

SACRAMENTO

2142.2	1	RESCUE	2	1	WALTERS		67		1	0	240	3000	1000	0	60	0	500	0
	1	CRASH			HOMER		70		1	0	180	400	300	50	960	0	0	0
	1	CRASH			WALTERS		74		1	0	240	3000	1500	0	60	0	500	0
	1	TANKER			GMC		52		1	0	300	5000	500	0	0	0	0	0
	5	RESCUE/COCHMAN					0		0	0	0	0	0	0	60	0	0	0
	6	RESCUE/AMBULANCE					0		0	0	0	0	0	0	6	0	0	0

SAN DIEGO

2170.	1	ANSUL MAGNUM 480			ANSUL		71	G	2	0	100	188	240	12	1410	25	0	30
7597 R-1	1	CH 3000			WALTERS		71	G	3	0	105	3000	1500	500	60	0	0	0
7599 R-4	1	CB 3000 (RESERVE)			WALTERS		70	G	0	0	105	3000	1500	250	60	0	250	0
7604 R-2	1	CB 3000			WALTERS		79	E	3	0	65	3000	1500	250	60	0	250	0

SAN DIEGO

2197.	1	LIGHT CFR			DODGE		72		0	1	180	50	0	3	450	0	0	0
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SAN FRANCISCO

2187.	1	FIRE INSP. CAR			FORD		68		1	0	0	0	0	0	0	0	0	0
30764	1	CHIEFS CAR			KENHORTH		71		1	0	0	0	0	0	0	0	0	0
427648	1	TRAINING OFF. CAR			CHEVROLET		75		1	0	0	0	0	0	0	0	0	0
32766	1	CFR			AMERICAN LAFFANCE		66	F	1	0	180	500	1000	50	0	0	0	0
33769	1	75-FT AERIAL			HACK		71		2	0	0	0	0	0	0	0	0	0
34768	1	CFR			WALTERS		70		2	0	280	3000	1500	500	0	0	0	0
35767	1	CFR			WALTERS		69		2	0	240	3000	1500	500	0	0	0	0
36763	1	CFR			FORD		73		1	0	0	4000	750	110	0	0	0	0
38760	1	CFR (RESERVE)			YANKEE WALTER		59		1	0	180	750	300	110	300	0	0	0
40761	1	CFR			YANKEE WALTER		59		1	0	180	750	300	110	300	0	0	0
39	1	CFR			FIRE ROSS		76		2	0	180	500	450	150	1000	0	0	0
41762	1	CFR (RESERVE)			YANKEE WALTER		60		2	0	240	1400	500	300	0	0	0	0
43771	1	RESCUE/MEDICAL			GMC		0		0	0	0	0	0	0	0	0	0	0
72	1	BOSTON WHALEP			BOSTON WHALEP		0		0	0	0	0	0	0	0	0	0	0

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CALIFORNIA

SITE NO.	CITY	AIRPORT	IC	INDEX	VS	CON	PRO	AUX	PES	WATER	PATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	SIA	TYPE														
2204.	SAN JOSE	SAN JOSE MUNI	SJC	CS												
1	OR	DODGE	69	E	1	0	115	50	60	3	450	5	0	15		
2	CFR	FORD	67	E	1	0	168	300	180	18	1350	25	0	15		
3	CFR	OSHKOSH	74	E	2	0	153	1500	1000	180	200	0	15	0		
4	CFR	OSHKOSH	74	E	2	0	155	1500	1000	180	20	0	0	15		

2227.	SANTA ANA	EL TORO MCAS	NZJ	AU												
		REMARKS - MILITARY FACILITY.														

2230.	SANTA ANA	JOHN WAYNE, ORANGE COUNTY	SNA	BS												
C-1 5186	I (TAU)	INTERNATIONAL	74	G	2	0	30	100	60	3	450	5	0	0		
C-2 5140	II (RESERVE)	YANKEE WALTER	60	F	0	0	0	1300	750	165	0	0	0	0		
C-2 5172	III	YANKEE WALTER	70	G	3	0	45	1500	750	300	0	0	0	0		
C-3 5100	IV	OSHKOSH	78	E	4	0	60	1500	750	155	0	0	0	0		

2235.	SANTA BARBARA	SANTA BARBARA MUNI	SDA	BS												
ENGINE 12	PUMPER (STRUCT.)	VAN PELT	62	G	2	0	90	1000	1000	0	20	2	0	0		
RESCUE 12	ANSUL MAGNUM 440	FORD	69	G	2	0	90	100	60	6	492	5	0	0		
CRASH 12	CTA-1500 BDOC	WALTERS	74	G	1	0	90	1500	1000	150	0	0	0	0		

2251.	SANTA MARIA	SANTA MARIA PUBLIC	SHX	AU												
CRASH 21	ANSUL MAGNUM 440	FORD	68	G	2	0	129	94	0	6	450	5	0	0		
ENG 21	CLASS A TRIPLE	HACK	77	E	2	0	129	500	1250	30	0	0	0	0		
ENG 21A	CLASS A TRIPLE	INTERNATIONAL	66	G	2	0	129	500	750	30	0	0	0	0		

2260.	SANTA ROSA	SONOMA COUNTY	STS	AAU												
660	1 FMD CFP	WALTERS	74	E	1	0	110	500	400	110	500	15	0	0		

WESTERN REGION
CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN CALIFORNIA

SITE NO.	CITY	AIRPORT	TO INDEX	YR	CON	PRO	AUX	PES	WATER	RATE	APFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	MANUFACTURER												
2303.7	SOUTH LAKE TAHOE	LAKE TAHOE													
1	1	ANSUL UNIT	AMC	0	1	0	180	300	300	18	1200	2	0	0	0
2	1	SKID RTO ANSUL	FORD	0	1	0	180	100	100	6	300	25	0	0	0
3	1	3/4 TON JEEP/ANSUL	JEEP	0	0	1	180	30	30	0	150	0	0	0	0
2314.1	STOCKTON	STOCKTON METROPOLITAN													
1	1	CRASH/SIRUCIURAL	VAN PELI	62	6	1	0	270	615	400	75	0	0	0	0
2	1	HAGHUB 480	ANSUL	69	6	1	0	180	187	200	13	1350	22	0	0
3	1	H1500	OSHKOSH	75	6	2	0	240	1500	1200	180	0	0	0	0
4	1	H1500	OSHKOSH	75	6	1	0	240	1500	1200	180	0	0	0	0
2413.	VISALIA	VISALIA PONT													
CFR-2	1	CFR	OSHKOSH	79	E	2	0	60	1500	1200	205	0	0	0	0
CFR-1	1	CFR	HALTERS	70	E	1	1	60	500	400	110	500	0	0	0

WESTERN REGION

CRASH/FIRE/RESCUE EQUIPMENT INVENTORY FOR AIRPORTS IN NEVADA

SITE NO.	CITY	AIRPORT	INDEX	YR	CON	PRO	AUX	RES	WATER	RATE	AFF	DRY	RATE	FOAM	CO2
VEHICLE	STA	TYPE	HANDMACTURER												

1304A.	ELKO	ELKO MUNI/J. C. HARRIS FIELD	AAS												
A-1	1	JEEP/TRAILEE	ANSUL	64	E	1	3	180	50	60	1	750	5	0	0
1	1	H-211 CRASH RIG	GHC	54	G	3	6	140	200	60	12	900	5	0	15
E-6	1	TRIPLE PUMPER	AMERICAN LAFRANCE	68	G	2	8	240	750	1000	10	20	0	10	0
R-1	1	RESCUE	CHEVROLET	57	F	1	1	0	0	0	0	20	0	0	15

1305T.	ELY	ELY ARPT/YELLAND FLD	AAS												
1	1	1-TON/FIRE BOSS		74	G	1	0	160	50	0	3	450	0	0	0
2	1	0-11	WALTERS	60	P	1	0	180	1000	250	200	0	0	0	0

1308T.	LAS VEGAS	MC CARRAN INTL	ES												
REDDOG 40	1	OR		74	G	2	0	140	0	0	0	450	0	0	0
REDDOG 41	1	CFP	WALTERS	75	G	2	0	210	3000	1600	500	0	0	0	0
REDDOG 42	1	CFR	YANKEE WALTER	60	F	1	0	270	1500	742	260	0	0	0	0
REDDOG 43	1	CFR	KLINE	69	G	2	0	240	7700	1769	700	0	0	0	0
REDDOG 44	1	R/H FOAMER, NURSE		0	F	0	0	0	5000	750	0	0	0	500	0
RAIT 46	1	BAIT, CHIEF TRUCK	FORD	75	G	1	0	0	0	0	0	0	0	0	0
RESCUE 13	1	PARAMEDIC VEHICLE	FORD	76	G	2	0	0	0	0	0	0	0	0	0

1312J.	RENO	RENO INTL	CS												
1	1	M1500	OSHKOSH	75	E	4	0	120	1500	1200	140	69	0	0	0
2	1	M1500	OSHKOSH	75	E	3	0	120	1500	1200	140	60	0	0	0
3	1	QUICK DASH	INTERNATIONAL	75	E	2	0	120	94	87	6	450	0	0	0
6	1	TRIPLE PUMPER	AMERICAN LAFRANCE	55	E	4	0	120	750	1250	20	25	0	0	15
R6	1	TRIPLE PUMPER (RES)	WARD LAFRANCE	54	F	1	0	120	150	750	50	20	0	0	0
T10	1	TANKER	INTERNATIONAL	51	G	1	0	300	2000	150	0	0	0	0	0

APPENDIX B

THE 222 AIR CARRIER ACCIDENTS WITH POTENTIAL CFR
BENEFITS SELECTED IN PASS ONE

Section 3.2.1 described the three-pass procedure that was used to review the 628 air carrier accidents that occurred from 1966 to 1978. In the first pass through the records, 628 accidents were divided into 406 that obviously led to no CFR benefit and 222 that conceivably might have provided a CFR benefit. This appendix lists these 222 accidents and briefly indicates the nature of the accident.

These 222 accidents include all accidents that gave any indication, however slight, that there might have been a CFR benefit. Many of these accidents were retained merely as a matter of procedure; for example, all gear collapse accidents were retained in these 222, since there is always the possibility of fuel spill and fire in these cases. In summary, if there was any doubt as to whether a CFR benefit resulted from an accident, it was retained in this group of 222 for further scrutiny.

1966

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
1	4-22	ARDMORE, OK	AMERICAN FLYERS	L188	Collision with terrain
3	1-23	JAMAICA, NY	EASTERN	B707	Hard landing, gear collapse
5	2-10	PITTSBURGH, PA	ALLEGHENY	F27	Gear retracted
7	2-13	DALLAS, TX	BRANIFF	B720	Engine fire on landing
11	3-3	BIRMINGHAM, AL	DELTA	DC6	Ground loop/swerve
13	3-21	NORFOLK, VA	FLYING TIGER	CL44	Hard landing
17	3-15	LOS ANGELES, CA	LOS ANGELES AIRWAYS	S61L	Gear failure
18	2-27	NEW ORLEANS, LA	DELTA	DC8	Ground loop/swerve
20	3-24	COLO. SPRINGS, CO	CONTINENTAL	V812	Gear collapse
21	4-27	ST. LOUIS, MO	ZANTOP	C46	Overshoot
35	11-14	CHICAGO, IL	OZARK	F27	Gear retracted
38	5-18	DENVER, CO	UNITED	DC7	Gear collapse
39	6-17	CHICAGO, IL	NORTH CENTRAL	CV440	Fire in flight
43	7-27	GALLUP, NM	FRONTIER	DC3	Collision with ditch, fire
45	2-23	FT. WORTH, TX	AMERICAN	CV990	Tires blew out
47	11-29	NEW CUMBERLAND, PA	ALLEGHENY	CV340	Collision with approach lights
48	4-9	OAKLAND, CA	UNITED	B720	Gear collapse, rejected t.o.
49	3-5	MIAMI, FL	EASTERN	B727	Gear up landing
51	7-28	PORT ELIZABETH, NJ	ZANTOP	C46	Gear up landing
55	10-22	NEW ORLEANS, LA	DELTA	DC8	Undershoot, hard landing
56	11-2	FLUSHING, NY	AMERICAN	B727	Struck approach light
57	6-29	MOJAVE, CA	AMERICAN	B720	Undershoot
58	11-15	LOS ALAMITOS, CA	ZANTOP	C46	Gear collapse
59	10-3	MIAMI, FL	SOUTHERN AIR TRANSP.	C54	Gear retracted
60	4-1	BRADFORD, PA	ALLEGHENY	CV340	Hard landing/gear collapse
62	10-18	LOS ANGELES, CA	TRANS WORLD	B707	Hard landing/gear collapse
63	12-4	CHICAGO, IL	UNITED	V700	Collided with ditches
67	11-26	OAKLAND, CA	AMERICAN	B707	Hard landing
69	7-11	HARLINGEN, TX	TRANS TEXAS	CV600	Undershoot/gear collapse
71	10-13	MUSKEGON, MI	UNITED	V745D	Overshoot/gear collapse
72	11-20	NEW BERN, NC	PIEDMONT	M404	Collided with trees

1967

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
3	3-30	KENNER, LA	DELTA	DC8	Collision with ground
9	1-19	NORFOLK, VA	UNITED	V745D	Gear collapse
10	2-14	BOSTON, MA	NORTHEAST	FH227	Gear retracted
11	2-17	ATLANTA, GA	SOUTHERN	M404	Gear up landing
12	2-22	MAR. VINEYARD, MA	NORTHEAST	DC6	Gear collapse
20	1-20	BOSTON, MA	NORTHEAST	FH227	Gear collapse
22	4-7	TAMPA, FL	UNITED	B727	Gear up landing
26	4-29	SALT LAKE CITY, UT	UNITED	B727	Gear collapse
27	6-24	NEWARK, NJ	DELTA	CV880	Engine fire in flight
28	12-21	DENVER, CO	FRONTIER	DC3	Collision with ground
29	11-6	ERLANGER, KY	TRANS WORLD	B707	Gear collapse
31	9-8	DENVER, CO	FRONTIER	CV580	Gear up landing
33	11-20	CONSTANCE, KY	TRANS WORLD	CV880	Undershoot
35	4-8	CHICAGO, IL	LAKE CENTRAL	N262	Fire in flight
36	6-26	GRAND RAPIDS, MI	UNITED	V745D	Gear collapse
37	7-31	HONOLULU, HI	ALOHA	V745D	Fire in flight
44	10-27	MIAMI, FL	EASTERN	AC500B	Gear retracted
46	10-18	ALLENTOWN, PA	UNITED	V745D	Gear collapse
47	1-23	SAN JUAN, PR	CARIB. ATLANTIC	CV640	Undershoot
48	7-23	DES MOINES, IA	BRANIFF	CV340	Fire in flight
55	4-25	SAN JUAN, PR	CARIB. ATLANTIC	CV640	Fire in flight/swerve
56	4-25	SAN FRANCISCO, CA	TRANS WORLD	B707	Gear collapse
58	11-28	RALEIGH DURHAM, NC	UNITED	V745D	Gear collapse
61	11-1	GREAT FALLS, MT	FRONTIER	CV340	Undershoot
62	1-24	OAKLAND, CA	SATURN	DC6	Gear collapse
63	4-15	MILWAUKEE, WI	DELTA	CV440	Gear retracted
64	1-31	SAN ANTONIO, TX	SATURN	DC6	Collided with trees
66	10-5	KANSAS CITY, MO	UNIVERSAL	DC6	Collided with dirt bank
70	12-11	AKRON, OH	UNITED	V745D	Gear collapse

1968

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
2	1-28	BENTON HARBOR, MI	NORTH CENTRAL	CV440	Gear collapse
5	5-22	PARAMOUNT, CA	LOS ANGELES AIRWAYS	S611	Collision with ground, fire
8	2-15	CHATTANOOGA, TN	DELTA	DC6	Gear retracted
9	4-28	ATLANTIC CITY, NJ	CAPITOL AIRWAYS	DC8	Collision with ditches
11	8-4	MILWAUKEE, WI	NORTH CENTRAL	CV580	Collision with aircraft
12	3-27	ST. LOUIS, MO	OZARK	DC9	Collision with aircraft
13	1-1	OXFORD, MS	SOUTHERN	M404	Gear collapse
14	8-10	CHARLESTON, WV	PIEDMONT	FH227	Collision with trees
15	3-20	EVANSVILLE, IN	DELTA	CV440	Overshoot
23	3-21	CHICAGO, IL	UNITED	B727	Collision with ditches
24	10-25	HANOVER, NH	NORTHEAST	FH227	Collision with ground, fire
25	6-8	SALT LAKE CITY, UT	UNITED	B727	Gear collapse
28	6-24	ST. LOUIS, MO	NORTH CENTRAL	CV580	Collision with towers, fire
31	2-29	BOSTON, MA	AMERICAN	BAC1-11	Gear collapse
33	12-24	BRADFORD, PA	ALLEGHENY	CV580	Collision with trees, fire
34	1-27	OAKLAND, CA	WORLD AIRWAYS	B707	Ground loop/swerve
37	8-7	BOSTON, MA	UNITED	B727	Gear collapse
39	12-27	ST. LOUIS, MO	OZARK	DC9	Stall
40	12-27	CHICAGO, IL	NORTH CENTRAL	CV580	Stall
42	7-25	MORGANTOWN, WV	ALLEGHENY	CV580	Gear collapse
44	7-2	PHILADELPHIA, PA	UNIVERSAL	DC7	Gear collapse
47	11-19	MARTINSBURG, WV	AMERICAN	B707	Fire in flight
48	2-23	JAMAICA, NY	EASTERN	DC8	Gear up landing
54	6-30	MEMPHIS, TEN	DELTA	CV340	Gear up landing
56	9-6	CLEVELAND, OH	AMERICAN	L188	Collision on ground
57	6-3	FLUSHING, NY	TRANS WORLD	B727	Struck approach lights
60	6-8	LITTLE ROCK, AK	UNIVERSAL	AW650	Gear up landing
61	9-28	MIAMI, FL	AIRLIFT INTERNATIONAL	DC7C	Gear collapse

1969

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
1	1-6	BRADFORD, PA	ALLEGHENY	CV440	Collision with trees, fire
6	5-14	WASHINGTON, DC	NATIONAL	B727	Taxiing collision
14	6-25	CHICAGO, IL	TRANS WORLD	B727	Gear collapse
17	7-26	POMONA, NJ	TRANS WORLD	B707	Collision with ground
20	7-15	JAMAICA, NY	NEW YORK AIRWAYS	DHC6	Vortex encounter, struck ground
28	1-31	JACKSONVILLE, FL	DELTA	DC8	Gear collapse
35	5-8	CHICAGO, IL	DELTA	DC8	Collision with aircraft
37	8-1	HOUSTON, TX	TEXAS INTERNATIONAL	CV600	Gear collapse
40	6-10	MACON, GA	DELTA	CV440	Gear collapse
44	7-29	JAMAICA, NY	AIRLIFT INTERNATIONAL	B727	Gear collapse
46	8-12	ST. THOMAS, VI	CARIB. ATLANTIC	DC9	overshoot, struck automobile
48	6-27	HONOLULU, HI	ALOHA	V745D	Collision with parked aircraft
50	11-20	MIAMI, FL	EASTERN	DC8	Collision with aircraft in flt.
51	8-3	FT. WORTH, TX	AMERICAN	B707	Collision with aircraft in flt.
53	7-29	FT. WORTH, TX	AMERICAN	CV990	Hard landing, gear collapse
54	11-28	NEWARK, NJ	EASTERN	DC8	Engine fire during takeoff
56	9-17	DALLAS, TX	DELTA	DC8	Gear collapse
58	10-16	STOCKTON, CA	SEABOARD WORLD	DC8	Collided with bank, gr collapse
	6-23	MIAMI, FL	COMPANIA DOMINICANA	DC6	Collision with buildings, fire
	6-24	MOSES LAKE, WA	JAPAN AIRLINES	CV880	Collision with ground, fire

1970

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
2	11-1	HARLINGEN, TX	TEXAS INTERNATIONAL	DC9	Collision with trees
6	2-1	DETROIT, MI	NORTH CENTRAL	CV580	Gear up landing
11	9-8	JAMAICA, NY	TRANS INTERNATIONAL	DC8	Stall
12	7-19	PHILADELPHIA, PA	UNITED	B737	Collision with fenceposts
15	6-3	NEWARK, NJ	EASTERN	B727	Fire on ground
16	9-8	LOUISVILLE, KY	DELTA	DC9	Undershoot
17	1-17	ASPEN, CO	ASPEN AIRWAYS	CV240	Gear up landing
20	9-15	PHILADELPHIA, PA	MOHAWK	FH227	Collision with object
21	3-4	FLUSHING, NY	NEW YORK AIRWAYS	S61L	Fire on ground
23	11-14	HUNTINGTON, WV	SOUTHERN AIRWAYS	DC9	Collision with trees
24	3-20	CHICAGO, IL	UNITED	B720	Fire on ground
26	12-28	ST. THOMAS, VI	TRANS CARIBBEAN	B727	Gear collapse
29	6-9	BANGOR, ME	TRANS CARIBBEAN	DC8	Fire on ground, aborted t.o.
33	2-11	STOCKTON, CA	PAN AMERICAN	B707	Collision with ditches
36	5-18	CHICAGO, IL	UNITED	B727	Fire on ground
39	5-1	SAN FRANCISCO, CA	DELTA	L382	Wheel well fire
40	11-4	SAVANNAH, GA	NATIONAL	B727	Gear collapse
42	12-17	BURLINGTON, VT	MOHAWK	B55	Collision with snowbank
44	12-23	KANSAS CITY, MO	FRONTIER	CV580	Gear collapse
47	12-16	BURBANK, CA	CONTINENTAL	B727	Gear collapse
50	12-10	ST. THOMAS, VI	CARIB. ATLANTIC	CV640	Gear collapse
53	9-29	DALLAS, TX	BRANIFF	B720	Gear retracted

1971

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
1	1-9	EDISON, NJ	AMERICAN	B707	Collision with aircraft in flt.
2	3-31	ONTARIO, CA	WESTERN	B720	Collision with ground
3	2-17	GULFPORT, MS	SOUTHERN	DC9	Collision with wires, poles
4	11-1	JACKSON, MS	DELTA	DC9	Ground loop/swerve
6	6-7	NEW HAVEN, CT	ALLEGHENY	CV580	Collision with houses
7	7-30	SAN FRANCISCO, CA	PAN AMERICAN	B747	Collision with approach lights
13	8-8	HONOLULU, HI	ALOHA	V745D	Fire on ground after landing
14	8-14	COMPTON, CA	CONTINENTAL	B707	Collision with aircraft in flt.
15	7-19	DENVER, CO	UNITED	B727	Gear collapse
17	7-23	CHICAGO, IL	UNITED	B747	Fire on ground
18	8-20	PITTSBURGH, PA	ALLEGHENY	CV580	Gear collapse
22	10-9	CHICAGO, IL	DELTA	DC9	Aircraft struck by vehicle
26	11-24	GREELEY, CO	FRONTIER	B99	Engine tear away
31	2-26	ST. LOUIS, MO	AMERICAN	B727	Gear collapse
40	12-17	HOUSTON, TX	TEXAS INTERNATIONAL	B99	Gear up landing, foamed runway
47	11-17	MILWAUKEE, WI	UNITED	B727	Fire in flight

1972

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
1	3-3	ALBANY, NY	MOHAWK	FH227	Collision with houses
2	5-18	FT. LAUDERDALE, FL	EASTERN	DC9	Collision with ground
3	5-30	FT. WORTH, TX	DELTA	DC9	Collision with ground
11	3-19	ATLANTA, GA	DELTA	DC9	Fire on ground
13	9-1	JAMAICA, NY	TRANS WORLD	B747	Fire in landing gear
14	2-16	BEAUMONT, TX	TEXAS INTERNATIONAL	CV600	Fire in flight
15	5-8	ALEXANDRIA, LA	TEXAS INTERNATIONAL	CV600	Gear collapse
17	12-20	CHICAGO, IL	DELTA	CV880	Collision with aircraft
18	5-10	ATLANTA, GA	EASTERN	DC9	Fire on ground
20	3-11	WINDSOR LOCKS, CT	ALLEGHENY	CV580	Collision with snowbank
22	9-13	SAN FRANCISCO, CA	TRANS WORLD	B707	Collision with object, rej. t.o.
24	3-3	HILO, HI	UNITED	DC8	Fire on ground
37	12-15	MIAMI, FL	NORTHWEST	B747	Gear collapse
38	11-1	ST. LOUIS, MO	TRANS WORLD	B707	Fire on ground
40	11-8	ATLANTA, GA	EASTERN	B727	Gear collapse
44	10-1	SAN FRANCISCO, CA	UNITED	B727	Gear collapse
45	12-28	ATLANTIC CITY, NJ	EASTERN	L1011	Engine damage
47	12-12	JAMAICA, NY	TRANS WORLD	B707	Collision with approach lights
48	12-8	CHICAGO, IL	UNITED	B737	Stall-mush
49	6-10	FLUSHING, NY	AMERICAN	B727	Fire on ground
	8-13	JAMAICA, NY	JUGOSLOVENSKI	B707	Rejected t.o., overshoot, fire

1973

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
Z10	11- 3	BOSTON, MA	PAN AMERICAN	B707	Collision with ground
Z11	11-27	CHATTANOOGA, TN	DELTA	DC9	Collision with approach lights
Z12	11-27	AKRON, OH	EASTERN	DC9	Overshoot
3	1-12	MIAMI, FL	EASTERN	L1011	Hard landing
5	3- 3	WICHITA, KS	TRANS WORLD	B727	Overshoot
6	3-17	PENSACOLA, FL	SATURN	L382	Gear collapse
9	3- 5	DENVER, CO	AMERICAN	B707	Collision with ground
10	4- 9	MIAMI, FL	PAN AMERICAN	B707	Gear collapse
11	7-31	BOSTON, MA	DELTA	DC9	Collision with seawall
14	6-12	PITTSBURGH, PA	ALLEGHENY	CV580	Gear collapse
15	6-20	BANGOR, ME	OVERSEAS NATIONAL	DC8	Fire on ground
19	10-28	GREENSBORO, NC	PIEDMONT	B737	Gear collapse
35	12-17	GREENSBORO, NC	EASTERN	DC9	Collision with object
39	8- 8	WASHINGTON, DC	BRANIFF	B727	Fire in flight
41	7-23	ST. LOUIS, MO	OZARK	FH227	Collision with ground
	6-23	JAMAICA, NY	LOFTLEIDER	DC8	Hard landing
	12-17	BOSTON, MA	IBERIAN	DC10	Collision with approach lights

B-10

1974

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
2	1-4	TAMPA, FL	UNITED	B727	Tire disintegrated
12	1-16	LOS ANGELES, CA	TRANS WORLD	B707	Gear collapse
13	7-8	TAMPA, FL	NATIONAL	DC10	Airframe failure in flight
14	1-17	INDIANAPOLIS, IN	TRANS WORLD	B707	Gear collapse
15	1-30	PAGO PAGO, AM. SAMOA	PAN AMERICAN	B707	Crashed into jungle, burned
20	9-11	CHARLOTTE, NC	EASTERN	DC9	Collision with ground, fire
28	11-25	FLUSHING, NY	DELTA	B727	Collision with aircraft on ground

1975

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
1	3-31	CASPER, WY	WESTERN	B737	Collision with ditches
2	2-4	MIAMI, FL	EASTERN	B737	Fire on ground
3	2-18	LONGVIEW, TX	AMERICAN	B707	Gear collapse
6	6-24	JAMAICA, NY	EASTERN	B727	Undershoot, wind shear
12	8-7	DENVER, CO	CONTINENTAL	B727	Collision with ground
14	6-13	NEW BEDFORD, MA	AIR NEW ENGALDN	FH227	Overshoot
19	6-14	LOS ANGELES, CA	TRANS WORLD	L1011	Fire on ground
21	11-12	JAMAICA, NY	OVERSEAS NATIONAL	DC10	Aborted takeoff, fire
22	11-12	RALEIGH, NC	EASTERN	B727	Undershoot
27	8-23	BUFFALO, NY	AMERICAN	B727	Gear collapse
29	8-16	PORTLAND, ME	DELTA	B727	Fire on ground
32	8-25	JAMAICA, NY	AMERICAN	DC10	Fire on ground
37	10-16	SEATTLE, WA	UNITED	DC10	Fire on ground
38	12-22	JAMAICA, NY	BRANIFF	DC8	Gear collapse
42	9-24	CLEVELAND, OH	ZANTOP	DC6	Gear collapse
	9-27	MIAMI, FL	AEROTRANSPORTES ENTRE RIOS S.R.L.	CL44	Rejected t.o., overshoot, fire

1976

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
5	4-27	ST. THOMAS, VI	AMERICAN	B727	Overshoot
6	5-6	CHICAGO, IL	AMERICAN	B747	Overshoot, gear collapse
9	6-1	SALINA, KS	TRANS WORLD	L1011	Fire in flight
10	5-27	HONOLULU, HI	CONTINENTAL	DC10	Collision with tug
11	6-23	PHILADELPHIA, PA	ALLEGHENY	DC9	Collision with ground
12	2-16	DENVER, CO	CONTINENTAL	B727	Fire on ground
15	1-8	VAN NUYS, CA	MERCER	DC6	Collision with buildings, fire
20	11-16	DENVER, CO	TEXAS INTERNATIONAL	DC9	Collision with ditches, rej. t.o.
22	11-12	BUFFALO, NY	ALLEGHENY	DC9	Gear collapse

1977

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
13	1-16	BALTIMORE, MD	CAPITOL	DC8	Aborted t.o., engine failure
18	7- 6	ST. LOUIS, MO	FLEMING INTERNATIONAL	L188	Collision with ground
22	6- 3	TUCSON, AZ	CONTINENTAL	B727	Collision with wires, poles
23	11-17	JAMAICA, NY	NORTHWEST	B747	Gear collapse

1978

NTSB#	DATE	LOCATION	CARRIER	TYPE	ACCIDENT TYPE
3- 1	3- 1	LOS ANGELES, CA	CONTINENTAL	DC10	Rejected t.o., overshoot, fire

B-15

APPENDIX C

THE 133 AIR CARRIER ACCIDENTS THAT PASS TWO DETERMINED
TO PROVIDE NO CFR BENEFITS

Appendix B listed the 222 accidents that pass one determined to have possibly provided a CFR benefit. These accidents were studied in more detail in pass two, and it was determined that 133 of them definitely provided no CFR benefit. This appendix lists these 133 accidents and briefly describes the basis for concluding that these accidents yielded no CFR benefits.

1966

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
3	1-23	JAMAICA, NY	EASTERN	B707	Hard landing, evacuation, no injuries or fire
5	2-10	PITTSBURGH, PA	ALLEGHENY	F27	Nose gear collapsed, no fire, no injuries, no fuel spilled.
7	2-13	DALLAS, TX	BRANIFF	B707	Engine fire on landing, on-board extinguisher adequate.
11	3-3	BIRMINGHAM, AL	DELTA	DC6	Gear collapse, no fire, no fuel leakage, no injuries.
17	3-15	LOS ANGELES, CA	LOS ANGELES AIRWAYS	S61L	Helicopter rolled over on start, no fire, ground crewman injured.
18	2-27	NEW ORLEANS, LA	DELTA	DC8	Minor damage, no fire or injuries.
20	3-24	COLORADO SPRINGS, CO	CONTINENTAL	V812	Wheels failed on landing, no fire, no injuries.
35	11-14	CHICAGO, IL	OZARK	F27	Gear collapse, no fire or fuel spill.
38	5-18	DENVER, CO	UNITED	DC7	Training flight, nosegear collapse, no fire or injury.
43	7-27	GALLUP, NM	FRONTIER	DC3	Fire occurred, was extinguished by on-board equipment.
45	2-23	FT. WORTH, TX	AMERICAN	CV990	Blown tires, no fire, one injury from evacuation.
47	11-29	NEW CUMBERLAND, PA	ALLEGHENY	CV340	Struck approach lights during aborted takeoff, no fire or injury.
49	3-5	MIAMI, FL	EASTERN	B727	Gear up landing, no fire, no fuel leakage, no injuries.
51	7-28	PORT ELIZABETH, NJ	ZANTOP	C46	Aircraft destroyed by impact, crew put out minor fire, escaped without help.
55	10-22	NEW ORLEANS, LA	DELTA	DC8	Hard landing, undershoot, no fire, no fuel leakage, no injuries.

1966 (Continued)

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
56	11- 2	FLUSHING, NY	AMERICAN	B727	Hit approach lights, no CFR activity was on scene.
57	6-29	MOJAVE, CA	AMERICAN	B720	Undershoot, training flight, no fire, no fuel spilled.
58	11-15	LOS ALAMITOS, CA	ZANTOP	C46	Gear collapse, no fuel spilled, no injuries.
59	10- 3	MIAMI, FL	SOUTHERN AIR TRANSPORT	C54	Gear collapse on landing, no fuel spilled, no injuries.
63	12- 4	CHICAGO, IL	UNITED	V700	Ran off wet runway, no fire, no injury.
69	7-11	HARLINGEN, TX	TRANS TEXAS	CV600	Undershoot, gear collapse, no fire or fuel spilled.
71	10-13	MUSKEGON, MI	UNITED	V745D	Overshoot, gear collapse, no fuel leakage.
72	11-20	NEW BERN, NC	PIEDMONT	M404	Non-survivable impact 3.4 miles from impact.

1967

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
9	1-19	NORFOLK, VA	UNITED	V745D	Collided with truck, no fire, no fuel spilled.
10	2-14	BOSTON, MA	NORTHEAST	FH227	Gear retracted after landing, no fire or fuel spilled, no injuries.
12	2-22	MARTHA'S VINEYARD, MA	NORTHEAST	DC6	Gear collapse, no fire, no fuel spilled.
22	4-7	TAMPA, FL	UNITED	B727	Gear up landing, no fire, no injuries, no fuel spilled.
26	4-29	SALT LAKE CITY, UT	UNITED	B727	Swerve, no fire or fuel spilled, no injuries.
31	9-8	DENVER, CO	FRONTIER	CV580	Gear up landing, no fire or fuel spilled, no injuries.
37	7-31	HONOLULU, HI	ALOHA	V745D	Fire in flight, extinguished by on-board equipment, no injuries.
36	6-26	GRAND RAPIDS, MI	UNITED	V745D	Gear collapse, no fire or fuel spilled, 1 evacuation injury.
46	10-18	ALLENTOWN, PA	UNITED	V745D	Overshoot, no fire, no fuel spilled, no injuries.
56	4-25	SAN FRANCISCO, CA	TRANS WORLD	B707	Nose gear failure, no fire, no fuel spilled, no injuries.
58	11-28	RALEIGH DURHAM, NC	UNITED	V745D	Gear collapse, no fuel spilled, no fire, no injuries.
61	11-1	GREAT FALLS, MT	FRONTIER	CV340	Undershoot, struck terrain 2 miles out but landed OK, no fire.
63	4-15	MILWAUKEE, WI	DELTA	CV440	Gear retraction, no fire, no fuel spilled, no injuries.
64	1-31	SAN ANTONIO, TX	SATURN	DC6	Struck 3.9 miles from runway no survivors.
66	10-5	KANSAS CITY, MO	UNIVERSAL	DC6	Undershoot, collided with dirt bank. no fire, no injuries.
70	12-11	AKRON, OH	UNITED	V745D	Gear collapse, no fire or fuel spilled.

1968

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
2	1-28	BENTON HARBOR, MI	NORTH CENTRAL	CV440	Gear collapse, 1 minor injury, no fire.
5	5-22	PARAMOUNT, CA	LOS ANGELES AIRWAYS	S61L	Rotor failure, crashed enroute, impact unsurvivable.
8	2-15	CHATANOOGA, TN	DELTA	DC6	Gear retraction, no fire or injuries, no fuel spill.
9	4-28	POMONA, NJ	CAPITOL	DC8	Crew escaped without CFR help, aircraft destroyed.
11	8-4	MILWAUKEE, WI	NORTH CENTRAL	CV580	Collision with aircraft, landed without incident.
23	3-21	CHICAGO, IL	UNITED	B727	Crew evacuated themselves, aircraft destroyed by fire and impact.
24	10-25	HANOVER, NH	NORTHEAST	FH227	Terrain collision with fire, 3 miles from airport.
25	6-8	SALT LAKE CITY, UT	UNITED	B727	Overshoot at slow rollout speed, no injury.
28	6-24	SIoux FALLS, SD	NORTH CENTRAL	CV580	Collided with towers, engine fire was out in 3-4 seconds, landed OK, no injuries.
31	2-29	BOSTON, MA	AMERICAN	BAC111	Gear collapse, no fire, no fuel spill, 1 injury during evacuation.
33	12-24	BRADFORD, PA	ALLEGHENY	CV580	Landed 2.5 miles out, no thermal injuries, 1-hour CFR response.
34	1-27	OAKLAND, CA	WORLD AIRWAYS	B707	Serve, training flight, no fire, no injuries.
37	8-7	BOSTON, MA	UNITED	B727	Gear collapse, no fire or fuel spilled.
39	12-27	SIoux CITY, IA	OZARK	DC9	Stall on takeoff, no fire, no CFR equipment available.
47	11-9	MARTINSBURG, WV	AMERICAN	B707	Precautionary landing after in-flight engine fire, fire out on landing.

1968 (Continued)

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
43	3-23	JAMAICA, NY	EASTERN	DC8	Gear collapse, no fire, no fuel spilled, no injuries.
54	6-30	MEMPHIS, TN	DELTA	CV340	Gear up landing, no fire, no fuel spilled, no injuries.
56	9-6	CLEVELAND, OH	AMERICAN	L188	Minor ground collision.
57	6-3	FLUSHING, NY	TRANS WORLD	B727	Struck approach lights, no fire, only minor injuries.
60	6-8	LITTLE ROCK, AR	UNIVERSAL	AW650	Gear collapse, no fire, or fuel spilled, 1 minor injury.
61	9-28	MIAMI, FL	AIRLIFT INTERNATIONAL	DC7C	Swerve, nosewheel collapse, no fire or fuel spilled.

1969

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
1	1-6	BRADFORD, PA	ALLEGHENY	CV440	Collided with trees 4.7 miles from airport, fire.
17	7-26	POMONA, NJ	TRANS WORLD	B707	Fire, loss of control, impact not survivable.
37	8-1	HOUSTON, TX	TEXAS INTERNATIONAL	CV600	Gear collapse, no fuel spilled, no fire.
46	8-12	ST. THOMAS, VI	CARIB. ATLANTIC	DC9	Landing overrun, struck building, no fire, easy evacuation.
48	6-27	HONOLULU, HI	ALOHA	V745D	Collision with parked aircraft, no fuel spilled, no injuries.
50	11-20	MIAMI, FL	EASTERN	DC8	Taxi collision, light damage, no fuel spilled, no injuries.
51	8-3	FT. WORTH, TX	AMERICAN	B707	Mid-air collision, AA707 landed OK with tail damage and no injuries to occupants.
56	9-17	DALLAS, TX	DELTA	DC8	Gear collapse, no fuel spilled, no evacuation, no fire.

1970

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
2	11- 1	HARLINGEN, TX	TEXAS INTERNATIONAL	DC9	Struck tree 12,000 feet from runway and landed OK, no injuries or fire.
6	2- 1		NORTH CENTRAL	CV580	Inadvertent gear up landing, no fire or injury.
12	7-19	PHILADELPHIA, PA	UNITED	B737	Collided with fencepost, no fire, aborted takeoff.
15	6- 3	NEWARK, NJ	EASTERN	B727	APU fire, extinguished by on-board equipment, no injuries.
16	9- 8	LOUISVILLE, KY	DELTA	DC9	Landed 156 feet short, no fire, no fuel spilled, minor injuries.
17	1-17	ASPEN, CO	ASPEN AIRWAYS	CV240	Gear-up landing, no fire, no injuries.
20	9-15	PHILADELPHIA, PA	MOHAWK	FH227	Wingtip struck building, no fire or fuel spilled.
23	11-14	HUNTINGTON, WV	SOUTHERN	DC9	Landed short, unsurvivable impact, fire.
33	2-11	STOCKTON, CA	PAN AMERICAN	B707	Overrun on slick runway by 200 feet, no fire.
36	5-18	CHICAGO, IL	UNITED	B727	APU fire, on-board extinguisher adequate.
40	11- 4	SAVANNAH, GA	NATIONAL	B727	Gear collapse, no fuel spill, no fire, no injuries.
44	12-23	KANSAS CITY, MO	FRONTIER	CV580	Gear collapse, slight spill, no agent expended.
47	12-16	BURBANK, CA	CONTINENTAL	B727	Slight fuel spill after gear collapse, no agent expended.
53	9-29	DALLAS, TX	BRANIFF	B720	Gear malfunctioning, ran off runway, no fire or injury.

1971

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFIT"
1	1-9	EDISON, NJ	AMERICAN	B707	Collision with another aircraft in flight, landed OK.
2	3-31	ONTARIO, CA	WESTERN	B720	Non-survivable impact, 1/2-mile short, fire.
3	2-17	GULFPORT, MS	SOUTHERN	DC9	Hit powerlines on approach, went around, landed OK.
4	11-1	JACKSON, MS	DELTA	DC9	Substantial damage but no fire, swerve, no injuries.
7	7-30	SAN FRANCISCO, CA	PAN AMERICAN	B747	Struck approach lights, fire burned itself out, injuries due to evacuation except one from impact.
14	8-14	COMPTON, CA	CONTINENTAL	B707	Collision with aircraft in flight, landed without incident afterwards.
15	7-19	DENVER, CO	UNITED	B727	Gear collapse, no fire or fuel spilled, minor injuries,
22	10-9	CHICAGO, IL	DELTA	DC9	Aircraft struck by vehicle, no fuel spill or fire.
31	2-26	ST. LOUIS, MO	AMERICAN	B727	Gear collapse on landing, no fuel spill, no fire, no injuries.
47	11-17	MILWAUKEE, WI	UNITED	B727	Landed without incident at Chicago after in-flight engine failure and fire.

1972

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
1	3-3	ALBANY, NY	MOHAWK	FH227	Landed 3.5 miles short, struck houses, city fire department responded.
11	3-19	ATLANTA, GA	DELTA	DC9	Engine fire on ground, out by on-board extinguishers, no CFR activity.
14	2-16	BEAUMONT, TX	TEXAS INTERNATIONAL	CV600	Engine fire and tearaway, fire out prior to landing, landed OK, taxied in under own power.
15	5-8	ALEXANDRIA, LA	TEXAS INTERNATIONAL	CV600	Nose gear collapsed during landing rollout, no fire or injury.
20	3-11	WINDSOR LOCKS, CT	ALLEGHENY	CV580	Serve on landing, hit snow-bank, no fuel spill, no fire, no injury.
22	9-13	SAN FRANCISCO, CA	TRANS WORLD	B707	Collided with object after rejected takeoff, rescue by USCG helicopter, crew only on board.
24	3-3	HILLO, HI	UNITED	DC8	Engine torched, flight attendant initiated evacuation.
37	12-15	MIAMI, FL	NORTHWEST	B747	Overshoot, gear collapse, no fire, no injuries.
40	11-8	ATLANTA, GA	EASTERN	B727	Gear collapse while taxiing, no fuel spilled.
44	10-1	SAN FRANCISCO, CA	UNITED	B727	Gear collapse, precautionary landing, no fire.
45	12-28	ATLANTIC CITY, NJ	EASTERN	L1011	Engine damage, in-flight failure, landed JFK without incident.
47	12-12	JAMAICA, NY	TRANS WORLD	B707	Struck approach lights, no fire or injuries.
49	6-10	FLUSHING, NY	AMERICAN	B727	Cabin fire on ground extinguished by crew.

C-11

1973

NTSD#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
3	1-12	MIAMI, FL	EASTERN	L1011	Hard landing, crew only aboard, no injury, taxied in under own power.
5	3-3	WICHITA, KS	TRANS WORLD	B727	Overshoot, slid off wet runway, no CFR on airport, no fuel spilled, evacuation injuries.
6	3-17	PENSACOLA, FL	SATURN	L382	Nose gear collapse, no fuel spilled or injuries.
10	4-9	MIAMI, FL	PAN AMERICAN	B707	Gear collapse taxiing, no fuel spill.
14	6-12	PITTSBURGH, PA	ALLEGHENY	CV580	Nose gear collapse, no fuel spill, evacuation injuries only.
19	10-28	GREENSBORO, NC	PIEDMONT	B737	Minor fire extinguished without help of CFR.
28	11-27	CHATANOOGA, TN	DELTA	DC9	Undershoot, no fire, no thermal injuries.
29	11-27	AKRON, OH	EASTERN	DC9	Overshoot, no fire or thermal injuries.

1974

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
13	7- 8	TAMPA, FL	NATIONAL	DC10	In-flight engine fire out on arrival, no injury.
14	1-17	INDIANAPOLIS, IN	TRANS WORLD	B707	Gear collapse, no fuel spilled, no fire, no injuries.

1975

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFIT"
1	3-31	CASPER, WY	WESTERN	B737	Overshoot, no fire
2	2- 4	MIAMI, FL	EASTERN	B727	Fire on the ground, extinguished by hand extinguisher.
3	2-18	LONGVIEW, TX	AMERICAN	B707	Gear collapse on training flight, no fuel spilled, no fire.
14	6-13	NEW BEDFORD, MA	AIR NEW ENGLAND	FH227	Overshoot, no fire, no fuel spilled, no injury.
19	6-14	LOS ANGELES, CA	TRANS WORLD	L1011	Engine fire at gate, evacuation injuries, fire extinguished by ramp attendant.
22	11-12	RALEIGH, NC	EASTERN	B727	Overshoot, no fire or fuel spill.
27	8-23	BUFFALO, NY	AMERICAN	B727	Gear collapse, no fire or fuel spill, no injury.
37	10-16	SEATTLE, WA	UNITED	DC10	Fire on ground, on-board extinguisher adequate, injuries during evacuation.
38	12-22	JAMAICA, NY	BRANIFF	DC8	Gear collapse taxiing, no fuel spilled, no fire, no injury.
42	9-24	CLEVELAND, OH	ZANTOP	DC6	Gear collapse, no fire, no fuel spilled, no CFR response.

1976

NTSB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
6	5- 6	CHICAGO, IL	AMERICAN	B747	No fire, no fire hazard, no injuries.
9	6- 1	SALINA, KS	TRANS WORLD	L1011	In-flight fire was out on landing.
10	5-27	HONOLULU, HI	CONTINENTAL	DC10	Collided with tug, no fuel spilled.
22	11-12	BUFFALO, NY	ALLEGHENY	DC9	Hit hole in taxiway, no injuries, no fire.
26	8- 4	MIAMI, FL	NATIONAL	B727	Gear retracted, no fuel spilled, no fire.

C-15

1977

NSFB#	DATE	LOCATION	CARRIER	TYPE	JUSTIFICATION FOR ASSUMING "NO CFR BENEFITS"
13	1-16	BALTIMORE, MD	CAPITOL	DC8	Aborted takeoff, fire out on arrival of CFR, evacuation injuries.
22	6- 3	TUCSON, AZ	CONTINENTAL	B727	Struck power line, landed OK, no injuries.
23	11-17	JAMAICA, NY	NORTHWEST	B747	Loss of directional control on runway, no fire.

C-16

APPENDIX D

A LIST OF THE 62 AIR CARRIER ACCIDENTS STUDIED IN DETAIL
IN PASS THREE FOR WHICH NTSB RECORDS WERE AVAILABLE

Of the 222 accidents listed in Appendix B that possibly provided a CFR benefit, pass two determined that the 133 accidents listed in Appendix C provided no CFR benefit. Thus, at the end of pass two, there were 89 accidents remaining that possibly provided a CFR benefit. Of these, full and complete NTSB records were available for 62 accidents. This appendix lists these accidents; a more extensive description of each accident is given in Appendix F. The estimate of the CFR benefit for each accident in terms of lives saved, injuries prevented, and percentage of hull saved is given in Appendix G. Of the 89 accidents remaining at the end of pass two, the 27 for which the complete NTSB records were missing are listed in Appendix E.

1966

D-3

DATE	NTSB#	LOCATION	CARRIER	TYPE
4-22	1	ARDMORE, OK	AMERICAN FLYERS	L188C
6-17	39	CHICAGO, IL	NORTH CENTRAL	CV440
10-18	62	LOS ANGELES, CA	TRANS WORLD	B707
11-26	67	OAKLAND, CA	AMERICAN	B707

1967

1-23	47	SAN JUAN, PR	CARIBAIR	CV640
2-17	11	ATLANTA, GA	SOUTHERN	M404
3-30	3	KENNER, LA	DELTA	DC8
4- 8	35	CHICAGO, IL	LAKE CENTRAL	N262
4-25	55	SAN JUAN, PR	CARIB-ATLANTIC	CV640
7-23	48	DES MOINES, IA	BRANIFF	CV340
11- 6	29	ERLANGER, KY	TRANS WORLD	B707
11-20	33	CONSTANCE, KY	TRANS WORLD	CV880
12-21	28	DENVER, CO	FRONTIER	DC3

1968

1- 1	13	OXFORD, MS	SOUTHERN	M404
3-27	12	ST. LOUIS, MO	OZARK	DC9
7- 2	44	PHILADELPHIA, PA	UNIVERSAL	DC7
8-10	14	CHARLESTON, WV	PIEDMONT	FH227
12-27	40	CHICAGO, IL	NORTH CENTRAL	CV580

1969

6-23		MIAMI, FL	COMPANIA DOMINICANA	DC6
6-24		MOSES LAKE, WA	JAPAN AIRLINES	CV880
10-16	58	STOCKTON, CA	SEABOARD WORLD	DC8

1970

3- 4	21	FLUSHING, NY	NEW YORK AIRWAYS	S61L
5-18	39	SAN FRANCISCO, CA	DELTA	L382
6- 9	29	BANGOR, ME	TRANS CARIBBEAN	DC8
9- 8	11	JAMAICA, NY	TRANS INTERNATIONAL	DC8
12-28	26	ST. THOMAS, VI	TRANS CARIBBEAN	B727

1971

6- 7	6	NEW HAVEN, CT	ALLEGHENY	CV580
8- 8	13	HONOLULU, HI	ALOHA	V745D
8-20	18	PITTSBURGH, PA	ALLEGHENY	CV580
12-17	40	HOUSTON, TX	TEXAS INTERNATIONAL	BE99

1972

DATE	NTSB#	LOCATION	CARRIER	TYPE
5-10	18	ATLANTA, GA	EASTERN	DC9
5-18	2	FT. LAUDERDALE, FL	EASTERN	DC9
5-30	3	FT. WORTH, TX	DELTA	DC9
8-13		JAMAICA, NY	JUGOSLOVENSKI A.T.	B707
9- 1	13	JAMAICA, NY	TRANS WORLD	B747
11- 1	38	ST. LOUIS, MO	TRANS WORLD	B707
12- 8	48	CHICAGO, IL	UNITED	B737
12-20	17	CHICAGO, IL	NORTH CENTRAL	DC9

1973

3- 5	9	DENVER, CO	AMERICAN	B707
6-20	15	BANGOR, ME	OVERSEAS NATIONAL	DC8
6-23		JAMAICA, NY	ICELANDIC	DC8
7-23	41	ST. LOUIS, MO	OZARK	FH227
7-31	11	BOSTON, MA	DELTA	DC9
8- 8	39	WASHINGTON, DC	BRANIFF	B727
11- 3	26	BOSTON, MA	PAN AMERICAN	B707
12-17		BOSTON, MA	IBERIAN	DC10
12-17	35	GREENSBORO, NC	EASTERN	DC9

1974

1-16	12	LOS ANGELES, CA	TRANS WORLD	B707
1-30	15	PAGO PAGO, AM. SAMOA	PAN AMERICAN	B707
9-11	20	CHARLOTTE, NC	EASTERN	DC9

1975

6-24	6	JAMAICA, NY	EASTERN	B727
8- 7	12	DENVER, CO	CONTINENTAL	B727
8-16	29	PORTLAND, ME	DELTA	B727
8-25	32	JAMAICA, NY	AMERICAN	DC10
9-27		MIAMI, FL	AEROTRANSPORTES ENTRE RIOS S.R.L.	CL44
11-12	21	JAMAICA, NY	OVERSEAS NATIONAL	DC10

1976

2- 8	15	VAN NUYS, CA	MERCER AIRLINES	DC6
2-16	12	DENVER, CO	CONTINENTAL	B727
4-27	5	ST. THOMAS, VI	AMERICAN	B727
6-23	11	PHILADELPHIA, PA	ALLEGHENY	DC9
11-16	20	DENVER, CO	TEXAS INTERNATIONAL	DC9

1977

DATE	NTSB#	LOCATION	CARRIER	TYPE
No accidents have been retained for study from the 1977 records.				

1978

3- 1		LOS ANGELES, CA	CONTINENTAL	DC10
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APPENDIX E

THE 27 AIR CARRIER ACCIDENTS FOR WHICH DETAILED NTSB
RECORDS WERE UNAVAILABLE

This appendix lists the 27 air carrier accidents, 1966-1978, described in the introduction to Appendix D for which the complete NTSB records were unavailable.

1966

DATE	NTSB#	LOCATION	CARRIER	TYPE
3-21	13	NORFOLK, VA	FLYING TIGER	CL44
4- 1	60	BRADFORD, PA	ALLEGHENY	CV340
4- 9	48	OAKLAND, CA	UNITED	B720
4-27	21	ST. LOUIS, MO	ZANTOP	C46

1967

DATE	NTSB#	LOCATION	CARRIER	TYPE
1-20	20	BOSTON, MA	NORTHEAST	FH227
1-24	62	OAKLAND, CA	SATURN	DC6
6-24	27	NEWARK, NJ	DELTA	CV880
10-27	44	MIAMI, FL	EASTERN	AC500B

1968

DATE	NTSB#	LOCATION	CARRIER	TYPE
3-20	15	EVANSVILLE, IN	DELTA	CV440
7-25	42	MORGANTOWN, WV	ALLEGHENY	CV580

1969

DATE	NTSB#	LOCATION	CARRIER	TYPE
1-31	28	JACKSONVILLE, FL	DELTA	DC8
5- 8	35	CHICAGO, IL	DELTA	DC8
5-14	6	WASHINGTON, DC	NATIONAL	B727
6-10	40	MACON, GA	DELTA	CV440
6-25	14	CHICAGO, IL	TRANS WORLD	B727
7-15	20	JAMAICA, NY	NEW YORK AIRWAYS	DHC6
7-29	44	JAMAICA, NY	AIRLIFT INTERNATIONAL	B727
7-29	53	FT. WORTH, TX	AMERICAN	CV990
11-28	54	NEWARK, NJ	EASTERN	DC8

1970

DATE	NTSB#	LOCATION	CARRIER	TYPE
3-20	24	CHICAGO, IL	UNITED	B720
12-10	50	ST. THOMAS, VI	CARIB-ATLANTIC	CV640
12-17	42	BURLINGTON, VT	MOHAWK	B55

1971

DATE	NTSB#	LOCATION	CARRIER	TYPE
7-23	17	CHICAGO, IL	UNITED	B747
11-24	26	GREELEY, CO	FRONTIER	B99

1972

(None)

DATE	NTSB#	LOCATION	CARRIER	TYPE
			1973	
			(None)	
			1974	
1- 4	2	TAMPA, FL	UNITED	B727
11-25	38	FLUSHING, NY	DELTA	B727
			1975	
			(None)	
			1976	
			(None)	
			1977	
7- 6	18	ST. LOUIS, MO	FLEMING INTERNATIONAL	L188

APPENDIX F

DESCRIPTION OF THE 62 AIR CARRIER ACCIDENTS STUDIED IN
DETAIL IN PASS THREE FOR WHICH NTSB RECORDS WERE AVAILABLE

Appendix D listed the 62 air carrier accidents that were determined to have had a high probability of providing a CFR benefit; these are the accidents studied in detail in pass three through the NTSB records. This appendix gives a description of the essential features of each accident, concentrating on the nature of the accident, the extent to which it was survivable, the evacuation that was possible, and the degree to which fire was a threat.

AMERICAN FLYERS AIRLINE CORPORATION
LOCKHEED ELECTRA L-188C

NEAR ARDMORE MUNICIPAL AIRPORT
ARDMORE, OKLAHOMA

APRIL 22, 1966

1. THE ACCIDENT

The aircraft was being operated under contract to the Military Airlift Command and was carrying 98 occupants (93 passengers and 5 crewmembers). After missing an ADF approach to runway 8 the aircraft attempted a visual approach to runway 30. The aircraft struck a hill approximately 1.5 miles from the airport. The elevation of the crash site was 201 feet above the airport elevation. Of the 98 occupants, 18 survived but 3 of these subsequently died as a result of injuries sustained in the crash. The aircraft was destroyed by fire.

2. SURVIVABILITY

The aircraft struck just below the crest of a hill, proceeded over the top of the hill, and slid down a slight grade for a distance of about 800 feet. Most of the passenger seats separated from the aircraft and tumbled out onto the ground during the last 150 feet of travel. Eighteen survivors were removed from the wreckage. Ten were found in the last 150 feet of aircraft travel, six were found in a group 50 yards south of the wreckage and two hiked away from the accident site. Of these eighteen, three later died.

All of the fatalities resulted from injuries sustained during the crash (-NTSB). Toxicological specimens from 63 passengers were sent to the Armed Forces Institute of Pathology for a Carbon Monoxide determination. Of these specimens only 12 cases showed evidence of carboxyhemoglobin in excess of 10 percent with the maximum being 45 percent. (Death from smoke inhalation would be indicated by a high proportion of carboxyhemoglobin, higher than those achieved here).

3. FIRE

The first evidence of fire occurred in the area of the # 3 engine ground impact crater, 82 feet from the initial impact. Firefighting equipment extinguished whatever fire remained following the moderate rain shower which began immediately after the accident occurred.

NORTH CENTRAL AIRLINES
CONVAIR 440

CHICAGO, IL
MIDWAY AIRPORT

JUNE 17, 1966

1. THE ACCIDENT

The aircraft experienced an engine fire in flight and made a precautionary landing at Midway airport.

2. SURVIVABILITY

The accident was survivable - there were only two persons aboard the aircraft (it was a training flight). None of these sustained any injuries.

3. EVACUATION

The evacuation occurred without difficulty, in part because there were only two crewmembers on the aircraft.

4. FIRE

The on-board extinguishing equipment could not extinguish or control the fire. The airport fire department responded and extinguished the fire.

TRANS WORLD AIRLINES, INC.
BOEING 707

LOS ANGELES INTERNATIONAL AIRPORT
LOS ANGELES, CA.

OCTOBER 18, 1966

Detailed information on this accident could not be located.

AMERICAN AIRLINES
BOEING 707

OAKLAND INTERNATIONAL AIRPORT
OAKLAND, CALIFORNIA

NOVEMBER 26, 1966

1. THE ACCIDENT

Upon arrival from San Francisco the aircraft made a hard landing which resulted in damage to the aircraft landing gear. The landing was aborted and the gear was retracted. During the second attempt at a landing the gear could not be properly extended and the runway was foamed for the aircraft. The nose gear was partially extended, the mains were fully extended.

2. SURVIVABILITY

The accident was survivable; there were no injuries to passengers.

3. EVACUATION

There were no injuries during the evacuation.

4. FIRE

There was no fire.

CARIBAIR
CONVAIR 640

SAN JUAN, PUERTO RICO

JANUARY 23, 1967

1. THE ACCIDENT

The flight landed short of runway 7 by about 250 feet, continued 600 feet down the runway and came to rest off the right side of the runway. There were 3 crew and 25 passengers aboard. Six passengers received minor injuries.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

Evacuation was out the left side of the aircraft; the aircraft was leaning to the right.

4. FIRE

As the aircraft proceeded down the runway the right wing separated near the root and a small fire broke out on the right side of the aircraft. The fire was extinguished by the airport firefighting equipment. The accident occurred at 0901 local time and the fire was extinguished at 0906. The equipment arrived on the scene in approximately 2 minutes.

SOUTHERN AIRWAYS
MARTIN 404

ATLANTA MUNICIPAL AIRPORT
ATLANTA GEORGIA

FEB 17, 1967

1. THE ACCIDENT

The flight diverted to Atlanta with a nose gear problem - the mains would extend and lock normally, but a safe nose gear indication could not be obtained. The runway at Atlanta was foamed for the aircraft. During the subsequent landing the propellers and fuselage received substantial damage. There were 29 occupants, including three crew, aboard. None were injured.

2. SURVIVABILITY

The accident was entirely survivable.

3. EVACUATION

As soon as the aircraft came to a stop the stewardess and the co-pilot left their seats and opened the forward cargo loading door (left front side of the aircraft) through which all passengers and crew evacuated the aircraft. Evacuation time was about two minutes.

4. FIRE

There was no fire.

DELTA AIRLINES INC.
DOUGLAS DC-8

NEW ORLEANS INTERNATIONAL AIRPORT
KENNER, LOUISIANA

MARCH 30, 1967

1. THE ACCIDENT

The Delta Airlines DC 8 crashed during an approach to New Orleans International Airport while on a training flight. Five crewmembers and an FAA observer were on board. All six occupants were injured fatally. Impact occurred in a residential area and 13 persons on the ground were also killed. The aircraft, several homes, and a motel complex were destroyed. The aircraft was executing a simulated two engine out approach.

2. SURVIVABILITY

This was not a survivable accident (- NTSB)

3. EVACUATION

There was none.

4. FIRE

Most of the aircraft wreckage, two homes, the motel mechanical plant, several room units and several vehicles were destroyed by fire.

LAKE CENTRAL AIRLINES
NORD 262

O'HARE INTERNATIONAL AIRPORT
CHICAGO, ILLINOIS

APRIL 8, 1967

1. THE ACCIDENT

The aircraft returned to O'Hare when a low quantity hydraulic light came on. Fire broke out in the right engine as they turned back, and the tower was notified to have the equipment standing by. There were 9 occupants aboard the aircraft, 3 crew and 6 passengers. There were no injuries.

2. SURVIVABILITY

The accident was entirely survivable.

3. EVACUATION

Evacuation occurred without injury. According to crew statements the evacuation was complete and the occupants of the aircraft had moved a safe distance away from the aircraft before the airport fire equipment arrived.

4. FIRE

Fire broke out in flight prior to landing. The fire department responded and successfully extinguished the engine fire. After the fire the engine was hanging loosely from the wing by the tailpipe. There was extensive damage to the engine and the right wing as a result of the fire. The on board fire extinguishing systems were not able to put the fire out.

CARIBBEAN ATLANTIC AIRLINES
CONVAIR 640

SAN JUAN INTERNATIONAL AIRPORT
SAN JUAN, PUERTO RICO

APRIL 25, 1967

1. THE ACCIDENT

The aircraft experienced an in-flight engine fire after takeoff from the Virgin Islands. The on-board extinguishing systems could not put the fire out. The aircraft landed in San Juan with the fire still in progress. The aircraft came to rest on the left wingtip and right main gear. There were 3 crew and 54 passengers aboard; 30 passengers sustained minor injuries.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

Evacuation was made from the right side of the aircraft through all exits on that side of the aircraft. The evacuation took approximately 4 minutes.

4. FIRE

The airport fire equipment was standing by for the flight and arrived at the accident very shortly after the aircraft came to a stop off the right side of the runway.

BRANIFF INTERNATIONAL
CONVAIR 340

DES MOINES MUNICIPAL AIRPORT
DES MOINES, IOWA

JULY 23, 1967

1. THE ACCIDENT

About four minutes after takeoff from Des Moines, the left engine caught fire. The onboard systems could not extinguish the fire. The aircraft returned to Des Moines, and landed successfully although the engine fire was still in progress when the aircraft landed. There were nine occupants; three crew and six passengers. There were no injuries.

2. SURVIVABILITY

The accident was entirely survivable.

3. EVACUATION

Passengers and crew deplaned through the right emergency window exit.

4. FIRE

The aircraft sustained substantial damage as a result of fire in the left engine, left wheel well, and wing flap area. One blade of the propeller was damaged as a result of dragging on the runway on landing. The fire continued to burn after the aircraft landed and was eventually extinguished by the airport fire fighting equipment.

TRANS WORLD AIRLINES INC.
BOEING 707

GREATER CINCINNATI AIRPORT
ERLANGER, KENTUCKY

NOVEMBER 6, 1967

1. THE ACCIDENT

TWA flight 159, a Boeing 707, crashed while attempting to abort a takeoff from runway 27L at Greater Cincinnati Airport, Erlanger, Kentucky. There were 29 passengers and 7 crewmembers on board. All 36 occupants escaped from the aircraft, but eleven were injured. One died four days later. As the aircraft was on its takeoff roll under the control of the first officer a loud report from the right side of the aircraft was heard accompanied by a sharp yaw. This occurred as the aircraft passed a Delta Airlines DC9 which was mired down adjacent to the runway. As the time of the abort the first officer believed that he was at or near V1. The aircraft ran off the end of the runway 421 feet. The main landing gear was sheared and the aircraft was extensively damaged by the ground slide and fire.

2. SURVIVABILITY

This was a survivable accident, although one of the eleven injured occupants died four days later.

3. EVACUATION

The forward galley door and aft main door were both opened by the assigned attendants, but they were unable to inflate the slides before being forced from the aircraft by the passengers. The attendant assigned to the main passenger loading door was unable to open it due to the buckling of the fuselage. The aft galley door was not used for evacuation of the aircraft because of fire on the right side of the aircraft. The attendant assigned to the door proceeded to assist passengers by evacuating them from the aft main loading door on the left, which was about twenty inches above the ground. When no one was in sight she exited the door herself. The flight engineer assisted in evacuating passengers from the forward exit; the copilot went directly to the forward galley door and carried a crippled woman to safety. The captain inflated the forward galley door slide, and when the aircraft was empty left himself.

4. FIRE

Ground fire occurred in the area of the right wing separation and engines 3 and 4. The two firemen on duty at the airport responded with the crash truck and rescue vehicle.

TRANS WORLD AIRLINES INC.
CONVAIR 880

GREATER CINCINNATI AIRPORT
CONSTANCE, KENTUCKY

NOVEMBER 20, 1967

1. THE ACCIDENT

The TWA Convair 880 crashed while executing an approach to runway 18 at Cincinnati. There were 82 occupants on board (75 passengers and 7 crewmembers). 10 passengers and 2 crewmembers survived. The aircraft was destroyed by impact and fire. The first impact with trees occurred 9,357 feet (1.77 miles) short of the runway approach and 429 feet to the right of the extended runway centerline. After several more impacts with trees and the ground the aircraft came to rest 6,878 feet (1.30 miles) short of the runway approach end and 442 feet to the right of the extended centerline.

2. SURVIVABILITY

Twelve of the 82 occupants survived the accident. All of these sustained at least some injury.

3. EVACUATION

Only one individual, a passenger, was able to give a clear description of his escape. At the first unusual sound he put his head between his legs and remained in that position until the aircraft came to rest. He escaped through the fractured fuselage.

4. FIRE

The aircraft did burn after impact and witnesses reported several explosions after the crash. Firefighting equipment responded from the airport and surrounding communities and the fires were contained and extinguished by them.

FRONTIER AIRLINES INC.
DOUGLAS DC 3

STAPLETON INTERNATIONAL AIRPORT
DENVER COLORADO

DECEMBER 21, 1967

1. THE ACCIDENT

Frontier flight 2610, a cargo flight, crashed during takeoff from runway 35 at Stapleton. The Captain and First Officer, the only occupants of the aircraft, were both fatally injured. The aircraft was destroyed by impact and fire. A gust lock was still in place in the right elevator.

2. SURVIVABILITY

This accident was not survivable (-NTSB)

3. EVACUATION

There was none

4. FIRE

Fire occurred on impact and consumed major portions of the aircraft.

SOUTHERN AIRWAYS
MARTIN 404

OXFORD, MISSISSIPPI

JANUARY 1, 1968

1. THE ACCIDENT

This was a ferry flight with crewmembers only aboard. The aircraft touched down 120 feet short of the runway, slid approximately 600 feet (the gear failed) and caught fire.

2. SURVIVABILITY

All three crewmembers escaped without injury.

3. EVACUATION

The crewmembers evacuated the aircraft without outside assistance.

4. FIRE

The aircraft was destroyed by fire.

OZARK AIRLINES INC.
DOUGLAS DC 9

LAMBERT FIELD
ST. LOUIS, MISSOURI

MARCH 27, 1968

1. THE ACCIDENT

The Ozark DC 9 collided with a Cessna 150 inflight approximately 1.5 miles north of Lambert Field. The light aircraft was destroyed by the collision and subsequent ground impact; both occupants of the light aircraft were killed. The Ozark flight sustained light damage and was able to effect a safe landing. There were 49 occupants (44 passengers and 5 crew) on the DC 9, none were injured.

2. SURVIVABILITY

This was a survivable accident for the occupants of the DC 9; it was not survivable for the occupants of the Cessna.

3. EVACUATION

After landing the aircraft was evacuated through the airstair door after the aircraft was brought to a stop adjacent to a taxiway. There were no difficulties with the evacuation.

3. FIRE

There was no fire involved. The tower advised the DC 9 that fuel was leaking from the right side of the aircraft and the crew shut the right engine down shortly after engaging reverse thrust. The left engine was secured during the rollout. Airport fire equipment stood by throughout the evacuation.

UNIVERSAL AIRLINES
DOUGLAS DC7

PHILADELPHIA INTERNATIONAL AIRPORT
PHILADELPHIA, PA.

JULY 2, 1968

1. THE ACCIDENT

This was a cargo flight with only three crewmembers aboard. After landing the aircraft veered off the runway, began to skid, and the two right engines and propellers contacted the ground. A fire started in the engines and progressed to the fuselage, which had come to rest on the engines.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

The crew evacuated the aircraft successfully before any fire equipment arrived on the scene.

4. FIRE

The airport fire department responded and was on the scene one minute after the accident. The fire was extinguished three minutes later.

PIEDMONT AIRLINES
FAIRCHILD HILLER 227B

KANAWHA COUNTY AIRPORT
CHARLESTON, WEST VIRGINIA

AUGUST 10, 1968

1. THE ACCIDENT

Piedmont flight 230 crashed while on approach to Charleston, West Virginia. Impact was followed by fire. There were 37 occupants on board the aircraft (34 passengers and 3 crew). Only two passengers survived. The aircraft was destroyed by impact and fire. The aircraft crashed into a steep hillside 250 short of the runway threshold and 33 feet below the threshold elevation. At the time of the accident a layer of dense fog obscured the approach end of the runway and part of the approach lights.

2. SURVIVABILITY

Of the 37 occupants, 32 were killed at impact. These fatalities are attributable to severe trauma (-NTSB). Five occupants, all of whom had been thrown clear of the wreckage, survived the initial impact, however three of these died the following day.

3. EVACUATION

The survivors that were thrown clear of the aircraft during impact were evacuated to a local hospital.

4. FIRE

Following initial impact an intense ground fire erupted which destroyed sections of the fuselage and wing areas. Firefighting personnel and equipment from the Air National Guard unit located at the airport arrived at the wreckage approximately 2 minutes after the crash and had the fire suppressed within ten minutes.

NORTH CENTRAL AIRLINES INC.
CONVAIR 580

O'HARE INTERNATIONAL AIRPORT
CHICAGO, ILLINOIS

DECEMBER 27, 1968

1. THE ACCIDENT

The North Central Convair crashed while on an instrument approach to runway 14R, striking a hangar building in a nearly inverted attitude during low instrument weather at night. There were 45 occupants on board the aircraft, 27 of whom were fatally injured. One person in the hangar also received fatal injuries. The aircraft was destroyed by impact and the ensuing ground fire. There was no evidence of fire prior to impact.

2. SURVIVABILITY

The accident is classified as partially survivable. The cockpit area and forward rows, one through five, were nonsurvivable. Rows 6 & 7 are considered areas of questionable survivability, while rows 8 through 12 are considered survivable.

3. EVACUATION

4. FIRE

Following impact, several fires erupted in the main hangar area as a result of ignited fuel from the ruptured fuel tanks. However the hangar deluge (sprinkler) system was activated by these fires and minimized damage within the hangar. Most of the forward fuselage and cockpit area was destroyed in the post-crash fire. The rear fuselage area received extensive-to-moderate fire damage. The main cabin area, from fuselage station 435 to 760 was extensively damaged from impact but was virtually free of fire damage. Only light sooting was noted on the bottom skin.

COMPANIA DOMINICANA de AVIACION
DOUGLAS DC 4

NEAR MIAMI INTERNATIONAL AIRPORT
MIAMI, FLORIDA

JUNE 23, 1969

1. THE ACCIDENT

The aircraft crashed shortly after takeoff from Miami International Airport as a result of an engine failure. After departure from runway 12 the aircraft attempted to turn back to land on runway 27 but was unable to sustain flight and crashed approximately one mile short of the runway. The aircraft crashed into buildings and was destroyed by the impact and ensuing fire. There were four persons on board - three crew and a deadheading pilot. All received fatal injuries, as did six people on the ground.

2. SURVIVABILITY

The accident was survivable as far as impact was concerned. Three of the four occupants suffered no impact related injuries but died as a result of smoke inhalation and burns. The fourth occupant died as a result of traumatic injuries received in the crash. Those injured on the ground died as result of fire or falling debris.

3. EVACUATION

There was none

4. FIRE

The aircraft struck an auto body shop, where it came to rest. Impact demolished the building and the aircraft. Fire broke out immediately and was fed by aviation fuel from the left wing as well as paints and thinners in the auto body shop. Another building was set fire by the fuel from the right wing which had separated from the aircraft on impact. The tower controller alerted the airport fire department at the time of observation of the smoking no. 2 engine. The fire department positioned itself for runway 27R. Following the crash these vehicles proceeded from their stations to the east gate and then east along 36th street to the accident site. The equipment arrived at the site approximately four minutes after the accident occurred. The Miami, Hialeah, and Metro Dade County Fire Departments also responded to the accident.

JAPAN AIRLINES
CONVAIR 880

GRANT COUNTY AIRPORT
MOSES LAKE, WASHINGTON

JUNE 24, 1969

1. THE ACCIDENT

This was a training flight. There were five crewmembers and trainees on board. Three were fatally injured and two received serious burn injuries. Shortly after liftoff the instructor reduced power on no. 4 engine. At a point 6500 feet down the runway the right wing made contact with the ground. The aircraft continued yawing, slid off the runway in a northerly direction (the takeoff runway was 32R) and travelled 2600 feet through rough terrain. The aircraft broke up and burst into flames before coming to rest pointed in an easterly direction. Four crewmembers escaped but only two of these survived. All engines separated from the airframe during the ground slide and all engines suffered some degree of fire damage.

2. SURVIVABILITY

One occupant died in the aircraft, presumably as a result of burns and smoke inhalation. The other four escaped, but two of these died as result of burns that occurred outside the aircraft during their attempted escape from the burning wreckage. The two survivors received serious burn injuries to their lower extremities as a result of their escape route through the flames around the aircraft. Both survivors were taken to a hospital by emergency vehicle.

3. EVACUATION

Four of the five occupants evacuated themselves from the aircraft.

4. FIRE

Evidence of fire begins 1700 feet north of the point where the aircraft left the runway and beyond the point where disintegration of the aircraft begins. Upon coming to rest the wings and fuselage burst into flames. The fuselage (except the empennage) were completely consumed by fire as were the wings. A brush fire spread through 300 acres. Response to the fire alarm sounded by the tower was immediate and the equipment reached the scene at 1607 (the accident

JAPAN AIRLINES
CONVAIR 880

GRANT COUNTY AIRPORT
MOSES LAKE, WASHINGTON

JUNE 24, 1969

4. FIRE (cont)

occured at 1603). One type 530A pumper, one type 0-10 crash truck, a tanker, and a dry chemical pickup truck were dispatched from the airport fire station. A tanker from the Boeing Co. augmented the equipment. Foam was directed at the fuselage in attempt to extinguish fire in occupied areas. 3500 gallons of foam and 2500 gallons of water were expended. There was a mutual aid response to combat the brush fire.

SEABOARD WORLD AIRLINES INC.
DOUGLAS DC 8

STOCKTON METROPOLITAN AIRPORT
STOCKTON, CALIFORNIA

OCTOBER 16, 1969

1. THE ACCIDENT

The Seaboard World DC 8 overran the end of runway 29R during the performance of a crew training flight. The captain elected to reject the takeoff because of a ground spoiler extend light during a touch and go landing. The crew was not able to stop the aircraft in the remaining runway. The aircraft came to rest 792 feet beyond the end of the runway where it was destroyed by fire. There were five crewmembers and no passengers on board. All occupants escaped without injury.

2. SURVIVABILITY

The five crewmembers escaped without injury.

3. EVACUATION

The occupants evacuated through the forward left main door without injury.

4. FIRE

The postimpact fire originated in the area where the number two engine separated from the wing. It gutted most of the aircraft. The entire fuselage, from the vertical fin to the forward cockpit pressure bulkhead was consumed by fire. The left wing was destroyed by fire from the number 1 engine to the wing root. The right wing root was burned and the right inboard flaps were partially burned away. The inboard leading edge tank was consumed by fire. The remainder of the right wing was relatively intact. All systems (hydraulic, electric, etc.) were destroyed by fire. Two pieces of firefighting equipment arrived at the departure end of runway 29R. While proceeding to the aircraft one became mired and could not move. The driver of the other truck followed a different route and approached to within approximately 350 feet of the aircraft, but stopped because of a ditch. A fire hose was pulled from this truck by two firefighters and the aircraft crew. The crew estimated that approximately 17 minutes elapsed before foam was actually applied to the burning aircraft. In this elapsed time, an explosion occurred within the left wing and flame engulfed most of the aircraft.

NEW YORK AIRWAYS
SIKORSKY S61

LAGUARDIA AIRPORT
FLUSHING, NY

MARCH 4, 1970

1. THE ACCIDENT

The aircraft experienced a fire in the heater.

2. SURVIVABILITY

The accident was survivable. There were no injuries to the nine occupants.

3. EVACUATION

The aircraft was evacuated without difficulty as soon as the fire was detected.

4. FIRE

The fire was observed by two cargo handlers and was fought with hand extinguishers until the fire department arrived. The fire department was notified of the fire by the tower. There was extensive damage to the aircraft in the vicinity of the heater.

DELTA AIRLINES
LOCKHEED L 382

SAN FRANCISCO INTERNATIONAL AIRPORT
SAN FRANCISCO, CALIFORNIA

MAY 18, 1970

1. THE ACCIDENT

The aircraft suffered substantial damage from a fire that originated in the left main wheel well during taxi-in from a rejected takeoff. There were three crewmember aboard the cargo flight. There were no injuries and no damage to the cargo. The aircraft suffered substantial damage.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

The flight crew secured the aircraft and exited via the left forward entrance door without injury.

4. FIRE

As the aircraft entered the ramp area the tower personnel observed a fire and notified the crew. Two PAA ground crewmen attempted to extinguish the fire with portable extinguishers but were unable to do so. The fire spread from the left landing gear wheel well area to the adjacent fuselage structure. Airport crash crew personnel arrived on the scene in about three minutes and extinguished the fire with the applications of chemical foam to the interior and exterior of the aircraft.

TRANS CARIBBEAN AIRWAYS
DOUGLAS DC 8

DOW FIELD
BANGOR, MAINE

JUNE 9, 1970

1. THE ACCIDENT

The aircraft commenced a takeoff on runway 15. Upon reaching about 100 knots, a right main tire blew out. The captain aborted the takeoff and during the rollout a second tire blew out and the right main gear assembly ignited. The aircraft was brought to a stop on the taxiway at the end of runway 15 and the aircraft was evacuated.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

There were 218 passengers and 10 crewmembers aboard the aircraft. Fourteen passengers were injured during the evacuation. These passengers were injured while using a partially inflated slide.

4. FIRE

From the copilot's statement: "As we approached the end of the runway and turned to the taxiway the aircraft had stopped and the tower advised me that it was really blazing. At this time the engines were shut down and I left the aircraft by way of the #1 exit, left front door, and proceeded to the area on the left hand side of the aircraft, to clear all passengers away. I proceeded to the left rear of the aircraft, aft of the wing because people were congregating and watching the fire, and asked them to clear the area."

From the captain's statement; "The aircraft was brought to a complete stop and the order to evacuate the aircraft from the left side was given. I was the last crewmember out of the cockpit and exited via the #1 door and assisted passengers at the bottom of the chute, advising them to clear the vicinity of the aircraft. Fire trucks arrived at the time I exited the aircraft and were attempting to extinguish the flames."

TRANS INTERNATIONAL AIRLINES CORP.
DOUGLAS DC 8 - 63F

KENNEDY INTERNATIONAL AIRPORT
NEW YORK

SEPTEMBER 8, 1970

1. THE ACCIDENT

The TIA DC 8 crashed during takeoff as a result of loss of elevator control during the takeoff. The aircraft pitched up radically and prematurely, rolled and crashed. The aircraft was on a ferry flight and was thus carrying no passengers. The eleven crewmembers on board were killed. The aircraft was destroyed by impact and postimpact fire.

2. SURVIVABILITY

This accident was not survivable. The injuries suffered by the crew were consistent with impact forces imposed from the left side of the aircraft.

3. EVACUATION

There was none.

4. FIRE

The postimpact fire broke out immediately and consumed approximately 60% of the aircraft structure. The airport firefighting equipment arrived at the accident site approximately 30 seconds after the impact and controlled the fire in approximately five minutes. CFR crews from both the main and satellite garages fought the fire. The main garage was located approximately 300 yards from the site. The crew at this location was securing from a previous emergency call and their response time was approximately 30 seconds after impact. The response time from the satellite garage was approximately 2 minutes. A special rescue squad from the New York City Fire Department supplied portable saws to cut some of the wreckage in the forward section of the aircraft.

TRANS CARIBBEAN AIRWAYS INC.
BOEING 727

HARRY S. TRUMAN AIRPORT
CHARLOTTE AMALIE, ST. THOMAS, V.I.

DECEMBER 28, 1970

1. THE ACCIDENT

A Trans Caribbean 727 crashed during landing. There were 55 occupants on board the aircraft (48 passengers, 7 crew); two passengers suffered fatal injuries. The flight made a visual approach to runway 9 in clear weather. The aircraft landed, bounced about fifty feet up, touched down a third time about 2700 feet down the 4650 foot runway and simultaneously with the last touchdown the right wing struck the runway. The aircraft veered to the right, passed through the airport perimeter fence, crossed over a paved highway and came to rest against a hillside adjacent to the highway.

2. SURVIVABILITY

This was a survivable accident (-NTSB). All seven crewmembers escaped and 46 of the 48 passengers escaped. One of the fatally injured was trapped in the seats by debris, the second was found on the ground aft of a break in the fuselage.

3. EVACUATION

The fuselage broke into three sections as a result of impact. The forward section contained the cockpit crew of three, two flight attendants, and seven passengers. These 12 escaped through the forward galley door and associated slide, but at least one of the evacuees was injured because of a six foot drop down from the end of the slide. The slide did inflate properly. The center section of the fuselage was occupied by nineteen passengers. The overwing exits were located in this section but were not used by the passengers. There was a drop of ten to fifteen feet from the aft break and many of the passengers used conduits and cables exposed by the rupture to assist in escaping. The aft section was occupied by 22 passengers and two flight attendants. Twelve persons escaped through the fuselage break while ten used the slide out the main door slide on the left. The two fatalities were located in the aft fuselage section. One of the flight attendants recalled considerable smoke and heat in the area of the aft section as the last occupants made their escape.

TRANS CARIBBEAN AIRWAYS INC.
BOEING 727

HARRY S. TRUMAN AIRPORT
CHARLOTTE AMALIE, ST. THOMAS, V.I.

DECEMBER 28, 1970

4. FIRE

Witnesses reported that an explosion occurred in the left wing root as the aircraft struck the hill and came to rest. A small fire started in the area on the explosion but several minutes elapsed before it seriously endangered the evacuation efforts. The crash sequence was observed by the airport firefighting personnel and response was immediate. Two pieces of firefighting equipment (a 300 gallon pumper with 18 gallons of foam and a "fire boss" with 1500 lbs of dry powder, 500 gallons of water and 100 gallons of foam) arrived on the scene within 1 to 1½ minutes. An ambulance arrived simultaneously. The two fire engines were initially driven up the access road near the aircraft cockpit and the fire was attacked from that position. The firemen were forced to retreat from that position because of the intensity of the fire. Other equipment, including the city Fire Department's 750 gallon pumper, deployed hand lines from the main road. Virtually the entire fuselage was consumed before the fire was extinguished. The engines and empennage remained undamaged by the fire.

ALLEGHENY AIRLINES INC.
CONVAIR 580

TWEED-NEW HAVEN AIRPORT
NEW HAVEN, CONNECTICUT

JUNE 7, 1971

1. THE ACCIDENT

The Allegheny flight crashed while on approach to runway 2 at New Haven. The aircraft struck three beach cottages and came to rest at a point 4890 feet from the displaced threshold of runway 2 and approximately 510 feet to the right of the extended centerline of the runway. There were 31 occupants on board the aircraft (26 adult passengers, 2 infants, and 3 crewmembers). Two passengers and the first officer survived. An intense fire ensued immediately upon initial impact and continued to burn to the point of the near total destruction of the upper portion of the fuselage.

2. SURVIVABILITY

The accident was impact-survivable. The fuselage, except the cockpit area, remained sufficiently intact to preclude the infliction of traumatic injuries to occupants. Toxicological studies and autopsies showed that 26 passengers died of chemical asphyxiation and thermal injury or a combination of both.

3. EVACUATION

One of the two surviving passengers experienced some difficulty in releasing his seat belt after the impact. He observed that the cabin was dark and that it was smoky at the rear. He had, however, familiarized himself with the emergency exits while enroute. After opening the right overwing exit, he was unable to leave the airplane by this exit because of the fire outside entering the cabin. He was burned in his face and hands, leaped back to the exit window directly across the cabin, found the exit open and left the cabin through it. The surviving female passenger left the aircraft through the same exit after seeing the first passenger use it. Both proceeded through a fire outside the aircraft and into a water filled ditch near the aircraft. When the fire was extinguished, 15 occupants were found near the rear service door. The others were found near the center and forward cabin sections. These occupants had all succumbed from thermal injuries and smoke inhalation. The first officer was rescued from a position on the ground approximately twenty feet in front of the nose section of the burning fuselage. He had sustained massive burn injuries and critical injuries to both legs. Amputation of both legs was subsequently necessary.

ALLEGHENY AIRLINES INC.
CONVAIR 580

JUNE 7, 1971

Page 2

4. FIRE

Ignition of spilled fuel occurred simultaneously with the airplane's initial contact with the buildings and powerlines and subsequent fractures of the wing structure which contained fuel. Fuel spillage and flame propagation continued at an accelerated rate after impact. Secondary explosions occurred shortly after final impact. Fire damage and near total destruction of the cabin interior occurred within several minutes after final impact. Two fire fighting units arrived at the crash site approximately five minutes after the accident occurred. However upon arriving at the site the firefighters did not see the burning airplane immediately and directed their efforts to the burning buildings. Subsequently, the firemen noticed the burning airplane, at which time they directed their efforts to it.

ALOHA AIRLINES
VICKERS VISCOUNT

INTERNATIONAL AIRPORT
HONOLULU, HAWAII

AUGUST 8, 1971

1. THE ACCIDENT

The aircraft landed routinely at Honolulu. The cabin attendant observed smoke in the center cabin interior as they were taxiing in and immediately informed the flight crew. The captain confirmed the observation, notified the tower and ordered the aircraft evacuated.

2. SURVIVABILITY

The accident was survivable; there were no injuries to the 22 occupants of the aircraft.

3. EVACUATION

The occupants left the aircraft by way of the air stairs. There were no injuries during the evacuation. The evacuation was completed before the airport fire equipment arrived.

4. FIRE

Airport firefighting equipment was on the scene within two minutes of notification and the fire was under control within 3½ minutes of their arrival. A total of eleven pieces of firefighting equipment responded and dispensed 165 gallons of foam liquid, 1,500 lbs of CO2 and approximately 3,600 gallons of water to control the fire. The aircraft interior was severely damaged by fire, heat, and smoke. The most severe fire damage existed in the passenger compartment in the vicinity of seat row 4. The intensity of the damage throughout the cabin was more extensive at the ceiling level than on the lower side wall structure.

ALLEGHENY AIRLINES
CONVAIR 580

GREATER PITTSBURGH INTERNATIONAL AIRPORT
PITTSBURGH, PENNSYLVANIA

AUGUST 20, 1971

1. THE ACCIDENT

The aircraft touched down on the runway at Parkersburg, West Virginia on a routine flight. The captain observed the right wing settle lower than usual; he immediately applied go-around power and raised the gear. The tower notified the aircraft that it had lost its right main gear and wheels. The aircraft proceeded to Pittsburgh where it landed with the remaining gear down and locked. On landing the aircraft veered to the right off the runway. All passengers evacuated the aircraft in an estimated time of thirty seconds, there were no injuries. The aircraft received substantial damage.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

Passenger statements were received from 95% of the passengers; all agreed that the crew did an outstanding job of briefing the passengers and contributed greatly to the lack of any injuries. Two Allegheny Airlines executive witnessed the landing and evacuation: they reported that the evacuation took place in 20 to 30 seconds.

4. FIRE

As the damaged right gear contacted the runway a stream of sparks flew from the assembly. As the aircraft veered off the runway into the adjacent grass area, the sparks ceased. There was no other fire. The prepositioned fire and rescue equipment arrived at the scene before the evacuation was complete. The left main gear collapsed during the swerve. The fire equipment foamed the left side of the aircraft.

TEXAS INTERNATIONAL
BEECHCRAFT BE 99

HOUSTON INTERCONTINENTAL AIRPORT
HOUSTON, TX

DECEMBER 17, 1971

1. THE ACCIDENT

Upon arrival the aircraft was unable to extend the landing gear, and the runway was foamed for the aircraft in anticipation of the gear up landing.

2. SURVIVABILITY

The accident was survivable - there were no injuries to the fourteen occupants of the aircraft.

3. EVACUATION

The occupants evacuated through the main cabin door and through the overwing exit.

4. FIRE

There was no fire.

EASTERN AIRLINES
DOUGLAS DC 9

ATLANTA AIRPORT
ATLANTA, GEORGIA

MAY 10, 1972

1. THE ACCIDENT

The aircraft was parked at Gate 17 at Atlanta Airport. The crew was on board making preparations for the scheduled flight; no passengers had yet boarded the aircraft. The crew was accomplishing the preflight checks when smoke was observed in the aft cabin area. The captain called for the fire trucks at 0545, and the crew attempted without success to bring the fire under control with a CO2 extinguisher.

2. SURVIVABILITY

The incident was survivable; there were no injuries.

3. EVACUATION

There were two flight crewmembers and two cabin attendants aboard. All of these evacuated the aircraft without injury.

4. FIRE

The air conditioning system and all electrical power had been turned off when the crew noticed a glow in the blanket rack area above the left seats in row 19 near the aft cabin area. The captain called for the fire trucks at 0545 and the crew utilized a CO2 extinguisher but flames erupted above the seats 19 left and they were forced to evacuate the aircraft. The fire department arrived at 0548 and the fire was brought under control at 0610.

The interior of the cabin forward of the aft pressure bulkhead sustained extensive fire damage but there was no heat damage below the cabin floor. The highest degree of damage occurred in the rear of the cabin but the forward galley and flight station were overheated and blackened. Fire penetrated the top of the aft cabin at three locations that coincided with the conditioned air drop ducts located at fuselage stations 765, 841, and 917. The aft pressure bulkhead door was open during the fire. The area aft of the pressure bulkhead was overheated and blackened but to a much lesser degree than the cabin and cockpit areas.

EASTERN AIRLINES INC
DOUGLAS DC 9 - 31

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT
FORT LAUDERDALE, FLORIDA

MAY 18, 1972

1. THE ACCIDENT

The Eastern DC 9 was involved in a landing accident while attempting to land on runway 9L following a localizer approach. The aircraft touched down hard, experienced a gear collapse at the main gear (on both sides) and the separation of the tail section from the aircraft. The aircraft was destroyed by the subsequent ground fire. At the time of the accident heavy rain showers associated with thunderstorms were in progress at the airport. There were six passengers and four crewmembers aboard the aircraft, and injuries were sustained by the captain, one stewardess, and one passenger.

2. SURVIVABILITY

This was a survivable accident.

3. EVACUATION

All crewmembers and passengers evacuated the aircraft through the forward main entry door. The aircraft had come to rest on its belly and the height from the floor level to the ground was about 3 feet. The stewardess experienced difficulty in opening the forward entry door and was subsequently assisted by the first officer and the passengers. The opening difficulty occurred when the fiberglass slide cover caught in the doorway. Three of the passengers jumped from the doorway prior to escape chute deployment, while the remaining three passengers and the crew exited via the escape chute. Total egress time for both the passengers and the crew was approximately 30 seconds, and all occupants moved quickly out of the immediate area of the burning aircraft.

4. FIRE

Shortly after touchdown the exterior of the aircraft aft of the trailing edge of the wing was engulfed in flames emanating from the aft section of both wing root areas. The crash alarm was received at the Fort Lauderdale Airport/Fire Security Dispatch Center at 1521, the time of the accident. A total of three trucks responded to the alarm. The first crash truck was at the scene applying foam within 40 seconds of the initial alarm, and the fire was extinguished within 2 minutes. A total of 12,000 gallons of 3% foam was used in extinguishing the fire.

DELTA AIRLINES INC.
DOUGLAS DC 9-14

GREATER SOUTHWEST INTERNATIONAL AIRPORT
FORT WORTH, TEXAS

MAY 30, 1972

1. THE ACCIDENT

The Delta DC 9 crashed while attempting a go-around following a landing approach to runway 13 at GSW. Three Delta pilots and one FAA inspector (the only occupants on this training flight) were injured fatally. The aircraft was demolished by impact and fire. The approach phase of the flight of the DC 9 appeared normal until the aircraft crossed the threshold. At that time the airplane began to oscillate about the roll axis. After two or three reversals the airplane rolled rapidly to the right and struck the runway in an extreme right wing low attitude. Fire occurred shortly after initial impact. It is presumed that the roll was caused by the wake turbulence from a DC 10 which had just completed a touch and go on the same runway.

2. SURVIVABILITY

The impact was nonsurvivable for the occupants of the cockpit. One captain trainee was occupying the cabin compartment at the time of the impact. This compartment retained its integrity and the occupant could have survived the impact if there had been no fire.

3. EVACUATION

There was none.

4. FIRE

Fire propagated from the ruptured wing fuel tanks to the airplane's fuselage subsequent to initial impact. The airplane's integral fuselage tank did not sustain mechanical damage during impact. All firemen on duty responded to the crash prior to the sounding of the alarm. The local tower controller logged the crash crew on the scene at the same time that he recorded the accident. All available equipment was used. A total of 625 pounds of dry chemical, 160 gallons of foam concentrate, and 35 gallons of light water were expended by these units. Three fire trucks from the Fort Worth Fire Department and one fire truck from Euless also responded. Other nearby fire departments were notified on the emergency communications network but did not actually respond.

JUGOSLOVENSKI AEROTRANSPORT
BOEING 707

KENNEDY INTERNATIONAL AIRPORT
JAMAICA, NEW YORK

AUGUST 13, 1972

1. THE ACCIDENT

The aircraft was attempting a takeoff on runway 13R when the right cockpit sliding window came open 3 seconds after passing V1. The captain elected to reject the takeoff. The aircraft ran off the end of the runway and came to a stop 120 from the end of the paved surface and 80 feet to the right of the runway. There were 186 persons aboard the aircraft (175 passenger and 11 crew). Fifteen passengers and one steward were injured during the evacuation. The left wing and engines 1 & 2 were damaged by impact and the ensuing fire.

2. SURVIVABILITY

The impact was survivable; there were no fatalities in this accident.

3. EVACUATION

None of the occupants reported receiving any injuries during the runway roll. All of the occupants were out of the aircraft prior to the arrival of the emergency equipment. Most occupants evacuated by way of the forward main entry door and the forward galley door via the associated slides.

4. FIRE

A fire engulfed the left outer wing panel outboard of the number 2 engine following the impact of the aircraft with the blast fence. The left fuel tank was ruptured, and a ground fire developed from the spilled fuel. The site where the aircraft came to rest is located 1.8 statute miles from the JFK No. 1 airport fire station and 1.9 miles from the JFK satellite fire station. The airport crash alarm was sounded at 0050 and the equipment was reported to have arrived at the burning aircraft at 0054. The fire was extinguished within five minutes of the arrival of the emergency equipment with a minimal amount of fire damage to the aircraft.

TRANS WORLD AIRLINES
BOEING 747

KENNEDY INTERNATIONAL AIRPORT
JAMAICA, NEW YORK

SEPTEMBER 1, 1972

1. THE ACCIDENT

While taxiing out for takeoff at Kennedy, the crew of the 747 was advised by the tower that sparks were being emitted from the landing gear system. Based on the information available the crew elected to evacuate the aircraft. There were 335 passengers and 18 crew aboard the aircraft. Eight passengers suffered serious injuries, including one skull fracture, 72 passengers suffered minor injuries.

2. SURVIVABILITY

This was a survivable accident.

3. EVACUATION

Before proceeding to the cabin area, the captain tried to request ground control to stop other taxiing aircraft in the area because of the evacuation. After taxiing aircraft were stopped, he went to the center cabin area where the evacuation was in progress. A uniformed person on the ground signalled that the fire was out and the evacuation should be stopped. The remaining passengers in the cabin were deplaned via mobile lounge; the captain and the flight engineer returned to the cockpit and completed the cockpit check list.

4. FIRE

The crash alarm was sounded at the airport fire department at 2122 and the first vehicles were on the scene in approximately two minutes. Within five minutes of the initial notification the fire was extinguished. Initially the fire equipment approach was hampered by evacuating passengers and the running engines. Fire personnel requested through the tower that the engines be shut down. A total of 350 lbs of dry chemical was used to extinguish the fire.

TRANS WORLD AIRLINES
BOEING 707

LAMBERT FIELD, ST. LOUIS INTERNATIONAL AIRPORT
ST. LOUIS, MISSOURI

NOVEMBER 1, 1972

1. THE ACCIDENT

The 707 landed with the number two engine on fire; the fire broke out as the aircraft landed. Two on board fire bottle were discharged in an attempt to extinguish the fire; these attempts were not successful and the captain elected to evacuate the aircraft. There were 81 occupants on the aircraft, one received serious injuries, a few others received minor injuries. Fire damage was confined to the number two engine.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

The aircraft was brought clear of the active runway, the engines were shut down and the decision to evacuate the aircraft was made. The aircraft was evacuated by means of the escape chutes and overwing exits. Most of the passengers who were injured used the overwing exits.

4. FIRE

The fire in the number two engine was extinguished by the airport's fire and rescue personnel soon after the aircraft was brought to a stop. Inspection of the engine revealed that damage was confined to the area around the lower third of the engine and the N2 gear box.

UNITED AIRLINES INC.
BOEING 737

CHICAGO - MIDWAY AIRPORT
CHICAGO, ILLINOIS

DECEMBER 8, 1972

1. THE ACCIDENT

The Boeing 737 crashed while on final approach to runway 31L at Midway airport. The accident occurred in a residential area approximately 1.5 miles southeast of the approach end of the runway. A number of houses and other structures were also destroyed. There were 61 occupants on board (55 passengers and 6 crewmembers); of these 43 were killed (40 passengers and 3 crewmembers). Two persons on the ground were also killed. The aircraft was destroyed by the impact and fire.

2. SURVIVABILITY

There was only one survivor forward of the wing - a flight attendant who suffered serious injuries when her seat collapsed during the impact. There were 17 survivors in the coach section including two uninjured flight attendants. Many of the survivors suffered injuries including fractures and first degree burns. Elevated carbon monoxide levels were found in 27% of the fatalities in the first class section and 76% of the fatalities in the coach section. Elevated hydrogen cyanide levels were found in the captain and six coach fatalities. Most of the deaths in the first class section were attributed to impact trauma. A substantially larger proportion of the coach passengers seem to have died as a result of thermal injuries and smoke inhalation; it would also seem that many of these occupants in the coach section survived the initial impact but were sufficiently incapacitated to be unable to evacuate the aircraft.

3. EVACUATION

The only survivor in the forward compartment was freed after an intensive 30 minute effort by Chicago Fire Department personnel. The 17 survivors from the aft section escaped through the rear service door and breaks in the fuselage. The two surviving flight attendants were the last to leave the aircraft.

4. FIRE

There was fire on both sides of the aircraft almost immediately after impact. The fire was observed to be very intense around the center section of the aircraft. The crash occurred at 1428 CST. The Chicago fire department was notified at 1429. Five engines, three truck companies, one helicopter, one dry chemical unit, and three ambulances responded immediately. First radio calls reporting units at the scene were made at 1431 and 1432. The fire was put out almost entirely with water. The fire was controlled in 20 to 30 minutes.

NORTH CENTRAL AIRLINES INC.
DOUGLAS DC 9 - 31
and
DELTA AIRLINES INC.
CONVAIR 880

O'HARE INTERNATIONAL AIRPORT
CHICAGO, ILL. 60666

DECEMBER 26, 1972

1. THE ACCIDENT

A North Central DC 9 was taking off on runway 27L while the Convair 880 was taxiing across the runway. The two aircraft collided.

There were 45 occupants on the DC 9 (41 passengers and 4 crew). 10 passengers were killed. 13 passengers and two crewmembers were injured. The DC 9 was destroyed by fire and impact.

There were 93 occupants on board the Convair 880 (86 passengers and 7 crew). Two passengers received minor injuries. The aircraft was substantially damaged by impact but there was no fire damage to the Convair.

2. SURVIVABILITY

The DC 9 became airborne just before striking the Convair. It suffered landing gear damage in the collision, and the remaining landing gear collapsed as the aircraft returned to the earth. Fire was seen around the aft section of the aircraft as it came to a stop. The impact forces were survivable. Of the 10 passengers that were fatally injured, 9 never left the aircraft and succumbed because of smoke inhalation or thermal injury; there was no indication of trauma. One passenger escaped but died 5 days later.

Two passengers on the Convair received minor injuries as a result of the collision.

3. EVACUATION

32 passengers and four crewmembers escaped the DC 9. Most of the occupants escaped via the forward exits. Passengers stated that there were no lights visible in the cabin and that the smoke was dense, particularly in the upper portion of the cabin.

The Convair was evacuated without incident or injury in approximately 5 minutes (captain's estimate). All four main exits were opened and the slides were inflated.

NORTH CENTRAL AIRLINES
DOUGLAS DC 9
and
DELTA AIRLINES INC
CONVAIR 880

DECEMBER 20, 1972

4. FIRE

The collision occurred at 1800 Central Standard Time. Because of reduced visibility in fog the tower did not observe the collision and the fire department was not notified until 1802. The airport fire department responded with 1 crash and fire vehicles and 2 ambulances. The first unit arrived at the DC 9 at 1803. The fire was extinguished in approximately 16 minutes. The vehicles expended 185 gallons of light water, 350 gallons of foam, 5350 gallons of water and 1700 lbs of dry chemical agent.

Because of the reduced visibility, the fire department was not aware of the Convair involvement in the crash until responding units came across it at 1828, nearly one half hour after the initial collision.

The DC 9 was destroyed by impact and fire.

AMERICAN AIRLINES
BOEING 707

STAPLETON INTERNATIONAL AIRPORT
DENVER, COLORADO

MARCH 5, 1973

1. THE ACCIDENT

This was a ferry flight with only the three flight crewmembers aboard; the aircraft was being ferried with one engine inoperative. During takeoff the crew was unable to maintain adequate directional control. Shortly after liftoff, the aircraft was rolled sharply to the left to remain parallel to the runway. The left wingtip contacted the ground, and shortly afterward the outboard left engine contacted the ground and separated from the wing. A fire broke out in the detached engine.

2. SURVIVABILITY

The accident was survivable, none of the three occupants suffered any injuries.

3. EVACUATION

The cockpit door was jammed as result of the nosewheel buckling up into the fuselage after the aircraft came to rest. The crew was forced to evacuate the aircraft through the right cockpit window.

4. FIRE

The only fire was in the number one engine strut position when the engine separated. The Denver Airport fire department arrived moments after the aircraft came to rest and extinguished the fire.

OVERSEAS NATIONAL AIRWAYS INC.
DOUGLAS DC 8 - 63

BANGOR INTERNATIONAL AIRPORT
BANGOR, MAINE

JUNE 20, 1973

1. THE ACCIDENT

While executing a takeoff in the DC 8 the captain heard a "loud muffled noise" accompanied by a "jarring of the aircraft to the right". The captain elected to reject the takeoff and brought the aircraft to stop on a taxiway adjacent to runway 15. Fire broke out in the right main landing gear and severely damaged the right main gear, the right wing, and the right side of the fuselage. There were 251 passengers aboard the aircraft; 34 were injured (3 seriously) during the evacuation.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

According to the cockpit voice recorder the evacuation of the aircraft did not begin until about three minutes after the aircraft came to a stop. Passengers were evacuated through 9 of the 12 available emergency exits. Some of the passengers had to stumble through smoke inside the cabin and outside the aircraft as they evacuated. The injuries occurred during the use of the escape slides.

4. FIRE

The fire which started during the takeoff roll burned for approximately 5 minutes before it was extinguished by the airport fire department.

LOFTLEIDIR ICELANDIC AIRLINES INC.
DOUGLAS DC 8 - 61

KENNEDY INTERNATIONAL AIRPORT
JAMAICA, NEW YORK

JUNE 23, 1973

1. THE ACCIDENT

The DC 8 was involved in a landing accident while on approach to runway 31R at Kennedy. The accident occurred at 0358 EDT. There were 128 occupants on board (119 passengers and 9 crew); there were no fatalities, but 6 passengers and two stewardesses were injured. As the aircraft flared the pilot called for the ground spoilers to be armed; the spoilers were inadvertently deployed prior to touchdown and the aircraft touched down hard, tailfirst, short of the displaced threshold by 20 feet. The aircraft was damaged substantially.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

The passengers and flight crew used the inflatable escape slides to evacuate the aircraft; there were no injuries during the evacuation. The evacuation was orderly.

4. FIRE

Shortly after separation of the number one engine from the aircraft fire started in the engine pylon. The fire was fed by a ruptured fuel line. Six firefighting vehicles responded and the first vehicle arrived on the scene approximately one minute after the accident. The fire was extinguished with foam 30 seconds later. One seriously injured passenger and the captain were evacuated by means of a galley service vehicle.

OZARK AIRLINES
FAIRCHILD HILLER FH - 227

NEAR LAMBERT-ST. LOUIS INTERNATIONAL AIRPORT
ST. LOUIS, MISSOURI

JULY 23, 1973

1. THE ACCIDENT

The aircraft was making an ILS approach to runway 30L at Lambert when it crashed 2.3 miles southeast of the airport. Forty one passengers and three crewmembers were aboard the aircraft. Thirty seven passengers and one crewmember received fatal injuries. After passing the outer marker the aircraft descended below the glide slope, entered an area of heavy rain, was struck by lightning and crashed. The aircraft was destroyed by impact and fire.

2. SURVIVABILITY

The impact forces were severe enough to cause all but one seat to break loose from the fuselage floor. Four passengers, who were seriously injured in the accident, were thrown clear of the wreckage. Their injuries included compound fractures to their extremities, vertebra fractures, rib fractures, multiple contusions, and severe lacerations of the head and body. The cabin attendant's injuries included a skull fracture, crushed chest, and massive internal injuries. Toxicological tests indicated no evidence of carbon monoxide or hydrogen cyanide in the deceased.

3. EVACUATION

There was no evacuation.

4. FIRE

The initial impact occurred at 1743. At 1746 the Normandy Fire Protection District dispatcher was notified that a house was on fire. Fire and rescue equipment were dispatched immediately and arrived at the scene about 1749 or approximately 6 minutes after the initial impact. Several small fires broke out in sections of the wreckage after the initial impact. The fires were quickly extinguished once the rescue equipment arrived at the scene. Rescue efforts were hampered by heavy rain, high winds, and some flooding in the area. Thirty four police departments participated in the rescue and salvage operations, nine fire departments and sixteen ambulances were dispatched. The last passenger was removed from the wreckage at 2215, four and one half hours after the accident. The NTSB records do not indicate whether or not this passenger was alive.

DELTA AIRLINES INC.
DOUGLAS DC 9

LOGAN INTERNATIONAL AIRPORT
BOSTON, MASS.

JULY 31, 1973

1. THE ACCIDENT

The DC 9 crashed into a seawall while executing an ILS approach to runway 4R. There were 89 occupants on board (83 passengers, 5 crew, and 1 cockpit observer). Only one occupant survived the impact. This lone survivor died as result of injuries sustained in the accident on Dec. 11, 1973. The aircraft was destroyed. Visibility at the time of the accident was reduced in fog.

2. SURVIVABILITY

The Suffolk County Coroner testified during the public hearings that the type and severity of injuries to the occupants would have precluded their survival, even had immediate medical assistance been available after the accident. Two passengers were found alive and transported to Massachusetts General Hospital. One of these died about two hours after the accident, the other on Dec. 11, 1973. This survivor had been seated in the last row of seats near a window. He crawled through the window and away from the burning wreckage.

3. EVACUATION

There was a construction crew working approximately 4,000 feet from the point of impact. The crash occurred at 1108 EDT. These workers drove to the crash site. The driver of the vehicle left his two companions and proceeded to the airport fire department. At a time between 1114 and 1115 he notified the fire chief of the accident. The fire apparatus left immediately, drove approximately one mile and arrived at the scene 3 minutes later. Before crossing runway 4L the vehicles requested clearance to do so from the tower. This was the tower's first notification of the accident. Only two passengers were found alive.

4. FIRE

When firemen arrived at the scene they found the wreckage still burning. The cabin fire was extinguished in less than one minute; water was then used to cool the wreckage. The fire required approximately 15,000 gallons of water and 800 gallons of 6% protein foam.

BRANIFF INTERNATIONAL
BOEING 727

DULLES INTERNATIONAL AIRPORT
WASHINGTON, DC

AUGUST 8, 1973

1. THE ACCIDENT

A loud bang was heard in flight shortly after takeoff from Dulles, and the crew elected to return to Dulles. When the gear was extended, a safe gear indication was received only for the nosewheel and the left main gear. After a fly-by it was determined that the right main gear was dangling and the outboard tire was blown. Shortly after the bang was heard the cabin also depressurized. It was decided to land the aircraft on a foamed runway.

2. SURVIVABILITY

The accident was entirely survivable; there were no injuries to any of the occupants. This accident was initially classified as an incident by the NTSB.

3. EVACUATION

According to the crew the evacuation was orderly and was assisted by the Dulles Fire and Rescue personnel.

4. FIRE

There was no fire during the incident, although one of the crewmembers did observe fluid leakage and smoke from an unidentified source. This observation, coupled with doubt about the integrity of the right main gear, led the crew to evacuate the aircraft by emergency means.

PAN AMERICAN WORLD AIRWAYS INC.
E 707

LOGAN INTERNATIONAL AIRPORT
BOSTON, MASS.

NOVEMBER 3, 1973

1. THE ACCIDENT

About thirty minutes after takeoff from JFK the crew reported smoke in the cockpit. The flight diverted to Logan, where it crashed just short of runway 33 during final approach. There were three crewmembers and no passengers aboard the cargo flight. All occupants were injured fatally.

2. SURVIVABILITY

This was not a survivable accident. Toxicological tests on the deceased revealed no evidence of carbon monoxide, hydrogen cyanide, alcohol, or drugs; this would imply that the fatalities were as a result of impact injuries rather than thermal injuries or smoke inhalation.

3. EVACUATION

There was none.

4. FIRE

At 0925 the Massachusetts Port Authority Fire Department was alerted to stand by for Clipper 160 because the flight had a fire warning light in the number 4 cargo hold. The fire department was not advised that the aircraft was carrying restricted cargo. Consequently, during the firefighting activities, the firefighters were not aware of the hazardous cargo aboard the aircraft. The fire equipment was positioned to respond to a landing on runway 33; however, shortly before the crash the equipment was repositioned for a landing on runway 27. Four pieces of airport firefighting equipment responded to the accident. After impact, firemen began to apply extinguishing agent to the aircraft within 30 seconds. Except for the fire at the approach light pier, the fire was in complete control within two minutes. To assist, city fire units were requested. They arrived at the accident site within seven minutes after the accident. The city force, which included a fire boat, concentrated its efforts on the pier fire which required more than one hour to contain. About 20,000 gallons of water were used, as were 1200 gallons of foam.

IBERIAN AIRLINES
DOUGLAS DC 10

LOGAN INTERNATIONAL AIRPORT
BOSTON, MASS.

DECEMBER 17, 1973

1. THE ACCIDENT

The DC 10 crashed while making an instrument approach to runway 33L at Logan. The aircraft first struck approach light piers about 500 feet short of the threshold of the runway. The aircraft then struck an embankment and sheared its right main landing gear. The aircraft skidded to a stop about 3,000 feet beyond the threshold and 280 feet north of runway 33L. Thirteen passengers were injured slightly; two passengers and one flight attendant were injured seriously during the evacuation. The aircraft was damaged substantially.

2. SURVIVABILITY

This was a survivable accident (-NTSB). As a result of the accident, a female flight attendant and two female passengers were hospitalized. The flight attendant, who jumped to the ground from the top of the fuselage, sustained pelvic fractures. One of the passengers fractured her right ankle. The other passenger, who slid off the top of the fuselage, fractured her left ankle and suffered compression fracture of the second lumbar vertebra.

3. EVACUATION

There are eight floor level escape exits, all equipped with inflating slides. Three of these could not be opened (right fwd, right aft, left aft) a fourth one, on the left side, was not used because of fire outside. The floor of the cabin failed in the aft area, obstructing the aisle. Five passengers were consequently trapped in the aft portion of the cabin. Four of these escaped through a break in the fuselage. The fifth person was later rescued by the flight crew. The remaining 162 persons escaped through the four open exits; the evacuation was completed in about two minutes.

4. FIRE

The aircraft caught fire while it skidded along and off the runway. The Massachusetts Port Authority Fire Department located on the Logan Airport, responded immediately and arrived within three minutes of the alarm that was sounded by the Boston Tower ground controller. The city of Boston Fire Department was also notified. Department firemen assisted in the rescue operation. According to firemen, fire was burning under the left wing, around the left engine, and along the left side of the fuselage when they arrived at the aircraft. Fuel from a ruptured left wing was feeding the fire. The fire was extinguished and the leaking fuel was covered by a layer of foam.

EASTERN AIRLINES
DOUGLAS DC9

GREENSBORO WINSTON-SALEM HIGH POINT REGIONAL AIRPORT
GREENSBORO, NC

DECEMBER 17, 1973

1. THE ACCIDENT

The aircraft aborted its takeoff on a runway covered with ice and snow. The aircraft experienced a fire under the rear of the aircraft. The aircraft was evacuated.

2. SURVIVABILITY

The accident was survivable. There were 89 occupants aboard the aircraft - one suffered an injury as a result of the accident.

3. EVACUATION

The evacuation required 5 to 7 minutes and was conducted entirely through the forward passenger door and stairs.

4. FIRE

A fire broke out under the rear of the aircraft and was extinguished by the airport fire department. A substantial amount of fuel had accumulated under the rear of the aircraft. The fire department arrived at the scene in approximately three minutes. One of the passengers was disabled and required assistance in being evacuated from the aircraft.

TRANS WORLD AIRLINES, INC.
BOEING 707 - 131B

LOS ANGELES INTERNATIONAL AIRPORT
LOS ANGELES, CALIFORNIA

JANUARY 16, 1974

1. THE ACCIDENT

The nose landing gear of this aircraft collapsed roughly 5,300 feet after touchdown and about 800 feet before the aircraft came to a stop on the runway. There was minor structural damage to the aircraft.

2. SURVIVABILITY

The accident was survivable. Of the 65 people on board, there were eight injuries, all sustained during evacuation.

3. EVACUATION

Evacuation was completed in 30-45 seconds.

4. FIRE

During deceleration fire broke out in the nose wheel area. Attempts by TWA employees to extinguish it with hand extinguishers were unsuccessful. After several minutes of being confined to the nose area, the fire spread to the cockpit and passenger cabin and spread down the entire fuselage. Fire trucks encountered such dense fog that persons had to walk in front of the vehicles to guide them to the scene. Response time was 6 minutes. After arriving, it took CFR roughly 19 minutes to get the fire under control.

PAN AMERICAN WORLD AIRWAYS, INC.
BOEING 707

PAGO PAGO INTERNATIONAL AIRPORT
PAGO PAGO, AMERICAN SAMOA

JANUARY 30, 1974

1. THE ACCIDENT

The Pan American B707 crashed into trees 3,865 feet short of the runway threshold and plowed through the jungle, striking a 3-foot-high lava wall and stopping 3,090 feet short of the runway threshold. The aircraft was destroyed by impact and the subsequent fire. Of the 10 crewmembers and 91 passengers, only 5 passengers survived, each with injuries.

2. SURVIVABILITY

The accident was survivable. Passengers who survived the accident said that the impact forces were slightly more severe than a normal landing. No damage to the cabin interior was reported.

3. EVACUATION

One person opened an overwing exit on the right side of the aircraft; flames came in through the exit and he closed it. All of the survivors escaped through the left overwing exits. Most survivors suffered burns and other injuries after they left the cabin. The forward and rear entry doors were not opened or used for escape. Except for one crewmember, all of the deaths resulted from thermal injury.

4. FIRE

The aircraft fuselage from the aft pressure bulkhead forward through the cockpit area was gutted by fire. Fuel tanks and both wings were burned and melted. A small fire truck, manned by two firemen, was parked next to the runway -- a standard practice when aircraft are scheduled to land at Pago Pago. The first alarm was received two minutes after the accident. Response was delayed because of confusions as to whether a house or aircraft was on fire. Response was further delayed by heavy rain and two chain gates across the access road from the airport to the accident scene. Access to the fire was limited to a one-lane road, and only one piece of firefighting equipment could approach and fight the fire. CFR extinguished the fire after destruction was complete.

EASTERN AIRLINES INC
DOUGLAS DC 9

DOUGLAS MUNICIPAL AIRPORT
CHARLOTTE, NORTH CAROLINA

SEPTEMBER 11, 1974

1. THE ACCIDENT

The DC 9 crashed 3.3 miles short of runway 36 at Douglas Municipal airport. The flight was conducting a VOR-DME approach with dense patchy fog in the area. There were 82 occupants aboard the aircraft, 11 survived the accident, but one of these died 29 days later. The aircraft was destroyed by impact and fire.

2. SURVIVABILITY

This was a partially survivable accident. Only a small section of the cabin near the tail of the aircraft retained its structural integrity. Most of the structure was destroyed, and in most cases, the occupant restraint system failed. All survivors in the rear of the aircraft were either thrown clear of the aircraft or escaped through breaks in the fuselage.

3. EVACUATION

The surviving passenger and two surviving crewmembers in the front of the aircraft escaped through a cockpit window. The forward cabin entry door was found partially open but was blocked by a fallen tree. Because of the position of the wreckage the ground blocked the forward galley door. The center fuselage overwing escape windows were destroyed by fire. The auxiliary exit in the tail of the aircraft was useable; however it was not used for escape.

4. FIRE

The crash occurred at 0734 edt. The Steele creek volunteer fire department was notified of the crash at 0741. Their trucks and emergency equipment were on the scene in 4 to 5 minutes. Rescue activities were confined to those persons outside the aircraft because there was no sign of life from within the aircraft wreckage when the rescue equipment arrived. The first survivors were transported to the hospital at 0748. Within 45 minutes of the accident all survivors had been removed to hospitals. The fire was under control within minutes after the arrival of the first vehicle, and rescue and firefighting efforts were completed by 1030.

EASTERN AIRLINES
BOEING 727

KENNEDY INTERNATIONAL AIRPORT
JAMAICA, NEW YORK

JUNE 24, 1975

1. THE ACCIDENT

The aircraft was executing an ILS approach to runway 22L; a heavy thunderstorm was in progress along the approach path of the aircraft. The aircraft crashed into the approach lights. There were 113 fatalities as a result of the crash; there were 124 occupants aboard the aircraft at the time. The aircraft was destroyed by impact and fire.

2. SURVIVABILITY

The accident was generally not survivable because of the nearly complete destruction of the aircraft. Only the aft flight attendants' seats remained attached to their supporting structures; all other seats in the aircraft failed. When the fuselage disintegrated and the cabin floors and seat anchors failed, the occupants became unrestrained and unconfined. They collided with each other and their surroundings, causing multiple extreme impact injuries. Fourteen individuals survived the initial impact; they were located in the inverted rear portion of the fuselage. While their seat supports also failed, they were less severely injured because the rear portion of the cabin remained relatively intact. The aft flight attendants were able to escape unaided because their restraint systems did not fail and they were protected from flying debris. Two of the fourteen survivors died shortly after their arrival at the hospital. Two more died five days after the accident and one died nine days after.

3. EVACUATION

There was no evacuation of the aircraft.

4. FIRE

Fire erupted as the aircraft skidded through the approach light towers releasing fuel from the left wing. Destruction of the fuselage caused more fuel to be released and the fire continued to burn after the aircraft came to rest. The impact occurred at 1605. The tower activated the fire alarm at 1606 and the airport fire department responded immediately. The first fire truck arrived at the scene about two minutes later; the New York City fire department arrived about 1613. The main fire was under control in about two minutes and was extinguished about three minutes later. The firemen extinguished a number of small fires with handextinguishers. The firefighters used 900 lbs of dry chemical, 1430 gallons of foam concentrate, and 24,000 gallons of water and foam mix to extinguish the fires. The fire department's rapid response prevented fatal burns to the nine passengers who ultimately survived, some were found lying in pools of fuel and fire extinguisher foam.

CONTINENTAL AIRLINES
BOEING 727

STAPLETON INTERNATIONAL AIRPORT
DENVER, COLORADO

AUGUST 7, 1975

1. THE ACCIDENT

The 727 crashed shortly after takeoff from Stapleton airport. The aircraft departed northbound off of runway 35L, climbed about 100 feet and then crashed near the departure end of the runway. The 134 persons aboard the aircraft survived the impact; 15 persons were injured seriously. The aircraft was damaged substantially. There was no fire.

2. SURVIVABILITY

The impact was survivable; all the injuries occurred as a result of the impact or the evacuation.

3. EVACUATION

Some confusion prevailed among the cockpit crew as to whether or not the aircraft was on fire. The cockpit crew evacuated the aircraft almost immediately, although the captain attempted first to shut the engines down. He was not able to do so, and after leaving the aircraft returned to the cockpit to try again to shut the engines down.

4. FIRE

There was no fire. The airport rescue and fire equipment did respond to the accident. After determining that the engines could not be shut down from the cockpit, the captain and the firemen elected to shut them down by injecting them with fire extinguishing foam and water.

DELTA AIRLINES INC.
BOEING 727

PORTLAND INTERNATIONAL JETPORT
PORTLAND, MAINE

AUGUST 16, 1975

1. THE ACCIDENT

While taxiing for takeoff the 727 developed a fire in the right wheel well as a result of the right main tires deflating. The crew suspected that the tires had gone flat during the extensive taxiing and elected to have the ground crew come out and inspect the aircraft. As the ground crew approached the aircraft they advised the flight crew that there was a fire on the right side of the aircraft and the crew made the decision to evacuate the aircraft.

2. SURVIVABILITY

There were 90 occupants aboard the aircraft (83 passengers and 7 crew). There were no injuries among the occupants as a result of the accident or evacuation.

3. EVACUATION

The evacuation began immediately after the ground crew reported the fire. Passengers and crew were evacuated through the aft aircraft stairway. The flight crew statements disclosed that the evacuation of the occupants was orderly, and progressed without panic or injury.

4. FIRE

At approximately 2204 e.d.t. Delta operations recalled flight 220 via the local control tower. During the return operation the crew became aware that the tires may have deflated. It was during this return operation that the crew decided to have the ground crew come out to the aircraft to have the gear assembly inspected externally. The ground crew detected the fire and the decision to evacuate the aircraft was made. It should be noted that the visibility was severely restricted by fog, the cause for the aircraft's return to the terminal; the aircraft may not have been visible to the control tower. Airport firefighting units were notified of the aircraft fire at 2218 e.d.t. which was approximately the same time as local control tower was notified. At 2220 emergency units at the scene reported a fire in progress. At 2230 the fire was reported contained. A total of 16 men and 7 pieces of equipment responded to the scene.

AMERICAN AIRLINES
DOUGLAS DC10

KENNEDY INTERNATIONAL AIRPORT
JAMAICA, NY

AUGUST 25, 1975

1. THE ACCIDENT

The aircraft experienced a series of tire failures on take-off. The takeoff was aborted, the abort being initiated approximately three seconds after the aircraft reached V1. The aircraft could not be stopped in the available runway and the captain elected to steer the aircraft off the runway. (This was done to avoid possible collision with the localizer antenna masts). The left main landing gear, at this time completely devoid of tires, settled into the sandy soil off the runway and arrested the aircraft "quickly but smoothly"

2. SURVIVABILITY

There were 231 occupants on board the aircraft. Three of these experienced injuries during the evacuation. The accident was survivable.

3. EVACUATION

The evacuation was completed without difficulty. The evacuation from exit 4-L was momentarily inhibited by the presence of a truck dispensing foam, but as soon as the situation was recognized, this difficulty was rectified. Exit 4-R was not available for evacuation since the slide had deployed perpendicular to the ground and remained bent through 90° at the ground.

4. FIRE

Fire broke out in the tailpipe of the number 1 engine and was fed by fuel which had "oozed from a small puncture inboard of the engine and had run outboard adhering to the skin on the underside of the wing until reaching a position above the heated tailpipe" (-NTSB report). The fire department began its response to the accident before the aircraft had come to rest. The tower had notified the fire department as a result of visual observations made while the aircraft was in the process of aborting the takeoff. Several fire department personnel had heard the high engine reverse noise and had begun a response to what they initially believed was a landing overshoot.

AEROTRANSPORTES ENTRE RIOS S.R.L.
CANADAIR CL-44

MIAMI INTERNATIONAL AIRPORT
MIAMI, FLORIDA

SEPTEMBER 27, 1975

1. THE ACCIDENT

The aircraft was attempting a night VFR takeoff from Miami, runway 27L. The pilot attempted unsuccessfully to rotate the aircraft, was unable to do so (because of a control lock) and rejected the takeoff. The aircraft could not be stopped in the remaining runway and ran off the departure end of the runway and crashed on the west bank of a canal about 960 feet from the end of the runway. Six of the ten persons aboard were killed. Two crewmembers and two passengers survived the accident. The aircraft was destroyed by impact and fire; the aircraft struck and destroyed an automobile injuring one of its occupants.

2. SURVIVABILITY

This accident was partially survivable. Seat tiedowns failed throughout the aircraft; two seat belts failed; the aircraft structure was compromised; the occupants were ejected from their compartments. The cockpit and cabin were destroyed. The deceased occupants sustained multiple severe traumatic injuries. None of the deceased had been burned. No significant levels of carbon monoxide were found.

3. EVACUATION

There was no evacuation.

4. FIRE

The accident occurred at 0600 edt. Upon their arrival at the scene, the airport firefighters saw fire on the surface of the canal water and around the wings and fuselage. The fuselage appeared to be generally intact and spanned the canal. At 0620 the fire was under control and at 0700 all fire was out.

OVERSEAS NATIONAL AIRWAYS
DOUGLAS DC 10 - 30

KENNEDY INTERNATIONAL AIRPORT
JAMAICA, NEW YORK

NOVEMBER 12, 1975

1. THE ACCIDENT

The DC 10 crashed while attempting to take off from runway 13R at JFK. Shortly after reaching 100 knots but before reaching V1 the aircraft struck many of a flock of sea gulls; the takeoff was rejected. During the deceleration, number 3 engine disintegrated and caught fire. The aircraft continued to roll out, several tires and wheels disintegrated, and the aircraft did not decelerate as anticipated. When the aircraft approached the end of the runway the captain steered it onto a taxiway; the landing gear collapsed and, ultimately, most of the aircraft was consumed by fire. Of the 139 persons aboard, all survived, but two were injured seriously and 30 were injured slightly.

2. SURVIVABILITY

This was a survivable accident. The occupiable area of the aircraft was intact; the only danger to the occupants was fire and smoke. The decelerations experienced were minor and well within human tolerance.

3. EVACUATION

The cockpit crew sustained rope burns during the evacuation. Three cabin crewmembers sustained minor sprains, contusions, and lacerations.

4. FIRE

The number three engine disintegrated and caught fire during the rollout from the takeoff. When the aircraft left the paved surface, integrity of the wing fuel tanks was lost and the structure of the aircraft was damaged. The aircraft came to rest near an underground drain and large quantities of the aircraft's fuel entered a storm drain system. The fuel was ignited and control of the fire was made virtually impossible. The fuselage between stations 239 and 2007 was consumed by fire. The fire was confined to the area where the aircraft came to rest. The fire and rescue forces were on the scene within one minute. However, flammable cargo (tires, spray cans of paint, and other flammable material) and the fuel which had leaked into the storm drain hampered the efforts of the firefighters. The fire was not extinguished until about 36 hours after the accident. Although firefighters were not aware of the contents of the baggage compartment, they were able to extinguish the fire with dry chemical extinguisher once they identified the cargo. Large amounts of foam and water had previously been applied without success.

MERCER AIRLINES
DOUGLAS DC 6

NEAR VAN NUYS, CALIFORNIA

FEBRUARY 8, 1976

1. THE ACCIDENT

The DC 6 crashed while attempting an emergency landing on runway 34L at Van Nuys Airport. The number 3 engine had separated from the aircraft during takeoff from runway 15 at Hollywood - Burbank airport, Burbank, California. The number 2 engine failed while enroute from Burbank to Van Nuys. The aircraft crashed on a golf course about one mile short of the approach end of the runway at Van Nuys. There were six persons aboard the aircraft. Three flight crewmembers were killed, two flight attendants and a non-revenue passenger were injured slightly. One person on the ground was injured slightly. During a post-accident fire, ten firemen were burned, three seriously. The aircraft was destroyed.

2. SURVIVABILITY

Three of the occupants survived the impact.

3. EVACUATION

The three survivors were able to leave the airplane via the left rear door. A person at the scene of the accident assisted them away from the aircraft.

4. FIRE

A California Highway Patrol helicopter landed within seconds of the crash and its crew attempted to get into the cockpit. There was no fire as a result of the crash. The Los Angeles City Fire Department responded to the crash with 18 units. The first of these arrived about three minutes after the accident. The fuel line in the left wing's leading edge had ruptured and fuel had spilled under the fuselage. The fuel fumes outside the aircraft were described as very strong. In order to reach the cockpit crewmembers, a decision was made to enter the cockpit using a carbide saw. Before using the saw the area around the nose and wings was blanketed with AFFF. During the attempt to extricate the cockpit crew, the saw generated a series of sparks, igniting the fuel vapors and seriously injuring several of the firemen. The fire was extinguished in seconds by prepositioned firemen. The fire began twenty minutes after the accident. The cockpit crewmembers suffered fatal traumatic injuries during the accident; presumably they were already dead during the attempt to extricate them.

CONTINENTAL AIRLINES
BOEING 727

STAPLETON INTERNATIONAL AIRPORT
DENVER, COLORADO

FEBRUARY 16, 1976

1. THE ACCIDENT

During the takeoff run on runway 35R, the crew observed a fire warning indication. A transmission from the control tower was simultaneously received advising that the number one engine was on fire. The aircraft had reached a speed of about 60 knots, the takeoff was aborted and the aircraft was brought to a stop on the runway. One passenger was injured during the subsequent evacuation.

2. SURVIVABILITY

The accident was survivable.

3. EVACUATION

The passengers and crew were evacuated by slides at the right galley door and the left main entrance. During the evacuation the slide on the left side collapsed and one passenger was dropped to the runway pavement. The passenger received serious injuries and required hospitalization. The captain ordered evacuation through the front exits because of burning fuel on the runway.

4. FIRE

From the captain's statement: "After discharging initial fire bottle, another radio transmission indicated fire was decreasing but not extinguished, discharged another bottle into engine. I ordered evacuation of the aircraft through the front exits only. Burning fuel on the runway dictated this type of evacuation. Passenger evacuation checklist was completed. I exited the cockpit and aided in the evacuation. The Fire Department arrived as I deplaned and extinguished fire remaining in the engine cowling and on the runway surface. A fireman noted that fuel was continuing to leak from the engine cowling, so I re-entered the aircraft to recheck the position of all fuel shutoff valve switches and confirmed their being in the closed position. Fuel had stopped leaking as I deplaned."

AMERICAN AIRLINES INC.
BOEING 727

HARRY S. TRUMAN AIRPORT
ST. THOMAS, VIRGIN ISLANDS

APRIL 27, 1976

1. THE ACCIDENT

The 727 overran the departure end of the runway (runway 9) after landing. The aircraft struck the ILS localizer antenna, crashed through a chain link fence, and came to rest against a building located about 1040 feet beyond the departure end of the runway. There were 88 persons aboard; 35 passengers and two cabin attendants were killed. An additional 38 occupants suffered varying degrees of injury. One person on the ground was injured seriously. The aircraft was destroyed.

2. SURVIVABILITY

The accident was partially survivable. Post-mortem examination of the 37 fatalities revealed that they died of a combination of impact trauma, smoke inhalation, and third degree burns. All but three of the surviving occupants of the aircraft received varying degrees of bodily injury. Their injuries included abrasions, contusions, lacerations, fractures, and burns.

3. EVACUATION

The passengers and flight attendants who survived the accident escaped through breaks in the fuselage or through the overwing emergency exits on the left side of the fuselage. The evacuation took place in approximately 1 to 1½ minutes. The three flight crewmembers escaped through the first officer's sliding window.

4. FIRE

Fire erupted immediately after the right wing struck an embankment. The fire emanated from a rupture in the right wing near the fuselage and was fed by aircraft fuel. It spread rapidly through the center section and the right wing areas of the aircraft, separating the tail section from the remainder of the cabin area. The cabin area, the inboard sections of both wings, and the cockpit were eventually destroyed by fire. The airport fire department responded to the accident before the aircraft had come to a stop. The fire vehicles proceeded down the runway onto the overrun. However, the driver of the lead fire vehicle determined visually that the trucks could not follow the path of the aircraft through the fence because of aircraft debris, live power lines, and dense smoke from the burning aircraft. The vehicles selected an alternate route and arrived about two minutes after the accident. The driver of the lead vehicle stated that he arrived on the downwind side of the aircraft and that the dense smoke limited his visibility and firefighting capability.

ALLEGHENY AIRLINES INC
DOUGLAS DC 9

PHILADELPHIA INTERNATIONAL AIRPORT
PHILADELPHIA, PENNSYLVANIA

JUNE 23, 1976

1. THE ACCIDENT

The flight was conducting an instrument approach to runway 27R in visual conditions as a thunderstorm passed over the airport. When near the threshold, the captain initiated a go-around from a low altitude and entered rain of increasing intensity. Shortly thereafter the aircraft was seen descending in a nose up attitude with the landing gear retracted. After striking tail first on a taxiway about 4,000 feet beyond the threshold of runway 27, the aircraft slid about 2,000 feet and stopped. The aircraft came to rest about 6,000 feet beyond the threshold and 350 feet to the right of centerline. There were 106 persons aboard; 86 were injured; there were no fatalities. There was no fire.

2. SURVIVABILITY

This was a survivable accident. The cockpit floor was displaced upward; the pilot seats were jammed in their tracks. The main cabin floor was displaced upward at seat rows 4 through 7, and at rows 13 through 15. Only 8 of 100 passenger seats were undamaged. Failed seats had come to rest in the aisle.

3. EVACUATION

The forward flight attendant was incapacitated by the impact; she instructed a male passenger to open the main cabin door. In doing so, he inadvertently activated the escape chute inside the cabin. As a result, the cabin door could not be opened. The galley service door was opened and its slide was inflated by passengers. High winds blew the slide almost horizontal and it was used by only one or two passengers. The four overwing exits were opened at about 40 passengers escaped through these. The aft flight attendant could not open the rear door and called for assistance. Three male passengers opened it and the majority of the passengers escaped through it. The pilots, the forward flight attendant and 12 passengers were either immobilized by injuries or trapped by failed seats. These occupants were still in the cabin when the first firemen arrived. Since there was no fire, these occupants were removed cautiously to avoid additional injury.

4. FIRE

There was no fire. The first airport fire unit arrived on the scene 1 minute and 48 seconds after the first alarm was sounded at 1712. (Impact occurred at 1712 also). A second alarm was sounded to which off-airport units responded. The ground around the aircraft was foamed as a precaution.

TEXAS INTERNATIONAL
DOUGLAS DC 9 - 14

STAPLETON INTERNATIONAL AIRPORT
DENVER, COLORADO

NOVEMBER 16, 1976

1. THE ACCIDENT

The DC 9 crashed after rejecting a takeoff from runway 8 at Stapleton. The pilot was unable to stop the aircraft in the remaining runway, it overran the runway end, traversed drainage ditches, struck approach light stanchions, and stopped. There were 86 persons aboard (81 passengers and 5 crew). Fourteen persons were injured. The aircraft was severely damaged by impact and fire.

2. SURVIVABILITY

This was a survivable accident (-NTSB). The occupiable area of the aircraft was intact. Decelerative forces were well within human tolerances. The only danger to occupants was from fire and smoke.

3. EVACUATION

The evacuation was conducted with little delay and all passengers were out of the aircraft in two minutes. All exits except the left overwing exit were used. Two flight attendants sustained sprains and abrasions. None of the passengers' injuries were serious, but two passengers were hospitalized for more than 48 hours and their injuries were classified as serious because of the length of their confinement.

4. FIRE

Fire erupted on the left side of the aircraft after the left main landing gear traversed the ditch and severed gear attaching structure on the left main fuel tank's rear bulkhead. Fuel escaped from this tank and ignited, causing massive damage to the left side of the fuselage and inboard section of the left wing. The airport CFR facilities responded to the accident and extinguished the fire. Although the distance to the crash site from the firehouse was about three miles, they were on the scene in about 5 minutes, but not before everyone had evacuated the aircraft. The fire was extinguished rapidly, preventing additional property loss.

CONTINENTAL AIRLINES
DOUGLAS DC 10-10

LOS ANGELES INTERNATIONAL AIRPORT
LOS ANGELES, CALIFORNIA

MARCH 1, 1978

1. THE ACCIDENT

Continental Airlines Flight 603, operating as a scheduled flight from Los Angeles to Honolulu, overran the departure end of Runway 6R, the only grooved runway at LAX, after the captain aborted the takeoff. The aborted takeoff was initiated when multiple tire failures occurred on the left main gear at an indicated airspeed of approximately 152 knots. The aircraft came to rest approximately 650 feet past the end of the runway in an area covered with a thin layer of black top. The weight of the aircraft, which was 300 pounds less than its allowed maximum gross takeoff weight, caused the landing gear to penetrate the black top surface. The left main gear separated from the aircraft, and, in the process, caused a left wing fuel tank to rupture. Fire was observed immediately after the aircraft came to rest. Of the 184 passengers, 2 infants, and 14 crew members aboard, 2 were killed by fire, 29 sustained serious injuries and 56 received minor injuries during evacuation. The aircraft was substantially damaged by the impact and partially destroyed by the subsequent fire.

2. SURVIVABILITY

This was a survivable accident. The 2 deaths and 85 injuries resulted from evacuation. The age range of the injured passengers was from 1 year to 30 years. Average age was 50 years for those sustaining minor injuries and 69 years for those sustaining serious injuries. The 2 deaths resulted from burns and smoke inhalation after evacuation. No impact or fire damage was noted in the cockpit area. Interior damage in the passenger cabin consisted of five ceiling panels that were found hanging by their restraint straps. Light troughs and sidewall ceiling panels on both the right and left side of the cabin also were found loose. Very little fire or smoke damage was noted inside the cabin.

3. EVACUATION

Cabin doors 2L, 3L, and 4L were opened very quickly after the aircraft stopped. The slides at these doors deployed and burned. Door 1L was opened later but the slide remained with the door. When passengers and a crewmember pulled the

slide out of its container, it fell unattached to the ground. Evacuation was accomplished from the right-hand exits. All right cabin door slides were deployed and used. All these slides failed or burned before the evacuation was completed. The last group of people to exit the aircraft used the escape rope at the first officer's position.

4. FIRE

The fuel source was from large holes in the #1 and #2 fuel cells when the left landing gear collapsed in the full aft position. Witness reports claim the fire began rather gradually and quickly built into a raging inferno with flames 50-60 feet high.

Initial notification and response was from Fire Station 80N which is located adjacent to and about equidistant from the ends of Runway 6R/24L. Firefighter J. W. McJannett, who was on duty in Fire Station 80N, heard two distinct popping sounds and observed the disintegration of some of the tires on CO603. He picked up the ring-down red phone which notifies Fire Station 80 that Station 80N is responding. Mr. McJannett and Engineer Tom Kaiser manned CB-1, a 3000-gallon CFR truck, and proceeded on the taxiway in the direction of the DC10. While responding the CFR crewmen saw the aircraft overrun the runway and catch on fire. As they approached the aircraft, fire was observed engulfing the left wing root, and they could see passengers evacuating from the right side of the aircraft. In an effort to protect the evacuation, their initial approach was from behind the DC-10 and in the 3 to 5 o'clock position with respect to the longitudinal axis of the aircraft. Mr. McJannett observed passengers who were on fire and directed the turret at those passengers, immediately extinguishing the fire with water and foam. CB-1 maintained its position to protect the evacuation operation and contain the fire until a Rapid Intervention Vehicle and two additional 3000-gallon crash trucks, CB-2 and CB-3, arrived approximately 4 minutes later from Fire Station 80, 2½ miles away. Once the complete firefighting effort was begun by all vehicles, the fire was extinguished within 2 minutes. The estimated response time of the first vehicle, CB-1, is 1-1½ minutes.

APPENDIX G

ESTIMATES OF CFR CRASH BENEFITS FOR
AIR CARRIER ACCIDENTS, 1966-1978

This appendix provides the detailed estimates of the actual benefit provided by CFR in accidents from 1966 to 1978 on which Chapter 3 is based. For each accident a table is given that shows how many deaths, how many serious (but not fatal) injuries, and how much hull destruction would have occurred under four circumstances:

1. no CFR, i.e., what would have happened in the absence of CFR;
2. existing CFR, i.e., what actually happened;
3. optimum CFR, i.e., in those case where response time was greater than three minutes, what would have happened had the response time been exactly three minutes (if the response time was three minutes or less, then optimum CFR equals existing CFR);
4. perfect CFR, i.e., what would have happened if the fire had been extinguished immediately after the wreckage had come to a stop.

These figures are estimated for the 62 accidents in Appendixes D and F and for the accident in Appendix E that was judged to provide a CFR benefit. The CFR benefit used in Chapter 3 is obtained by subtracting the number for what actually happened with existing CFR from what would have happened if there had been no CFR. For example, if one death actually occurred, and if four deaths would have occurred if there had been no CFR, then the estimated CFR benefit for this accident is three lives saved.

The figures on optimum and perfect CFR put upper bounds on what improved CFR could be expected to achieve. These figures are not used in this report but will be used in future reports that evaluate CFR policy alternatives. The figures on optimum and perfect CFR are only given if the aircraft wreckage came to rest no more than 3000 feet off the end of the runway and no more than 500 feet from the runway centerline. This restriction is imposed since, if the wreckage is outside this area, CFR vehicles could not be reasonably expected to make a rapid response. The symbol N/A (not applicable) is used to identify those accidents where optimum and perfect benefits are not estimated because the wreckage was outside this area.

In cases where the accident records were not informative enough to allow a precise estimate, the estimate made was shaded to insure that benefits were not understated. This shows up in three ways. First, it is assumed that ten percent of the hull is saved whenever a plane lands on a foamed runway. Second, it is assumed that a wheel well fire, if unextinguished by CFR, would have destroyed the aircraft. Third, whenever it was not possible to determine how much of a hull would have been destroyed in the absence of CFR, it is assumed that the entire hull would have been destroyed.

The benefits that would have been provided by optimum and perfect CFR are summarized in a series of tables at the end of this

appendix. These tables show that the annual saving in hulls, lives, and injuries in air carrier accidents is \$22.850 million under existing CFR, would be \$25.147 under optimum CFR, and would be \$35.611 under perfect CFR.

1966

		CFR FACILITIES			
<u>ACCIDENT</u>		<u>NONE</u>	<u>EXISTING</u>	<u>OPTIMUM</u>	<u>PERFECT</u>
AMERICAN FLYERS	Deaths	83	83	N/A	N/A
LOCKHEED ELECTRA	Injuries	15	15	N/A	N/A
APRIL 22, 1966	Hull Damage	100%	100%	N/A	N/A
ARDMORE, OK					
NORTH CENTRAL	Deaths	0	0	0	0
CONVAIR 440	Injuries	0	0	0	0
JUNE 17, 1966	Hull Damage	100	20	20	10
CHICAGO, IL					
TRANS WORLD	Deaths	0	0	0	0
BOEING 707	Injuries	0	0	0	0
OCTOBER 18, 1966	Hull Damage	40	20	20	20
LOS ANGELES, CA					
AMERICAN AIRLINES	Deaths	0	0	0	0
BOEING 707	Injuries	0	0	0	0
NOVEMBER 26, 1966	Hull Damage	20	10	10	10
OAKLAND, CA					

1967

CFR FACILITIES

ACCIDENT		NONE	EXISTING	OPTIMUM	PERFECT
CARIBAIR	Deaths	0	0	0	0
CONVAIR 640	Injuries	0	0	0	0
JANUARY 23, 1967	Hull Damage	100%	50%	50%	50%
SAN JUAN, PR					
SOUTHERN AIRWAYS	Deaths	0	0	0	0
MARTIN 404	Injuries	0	0	0	0
FEBRUARY 17, 1967	Hull Damage	20	10	10	10
ATLANTA, GA					
DELTA AIRLINES	Deaths	19	19	19	19
DC 8	Injuries	0	0	0	0
MARCH 30, 1967	Hull Damage	100	100	100	100
KENNER, LA					
LAKE CENTRAL	Deaths	0	0	0	0
NORD 262	Injuries	0	0	0	0
APRIL 8, 1967	Hull Damage	100	30	30	25
CHICAGO, IL					
CARIBBEAN ATLANTIC	Deaths	0	0	0	0
CONVAIR 640	Injuries	0	0	0	0
APRIL 25, 1967	Hull Damage	100	40	40	40
SAN JUAN, PR					
BRANIFF INT'L	Deaths	0	0	0	0
CONVAIR 340	Injuries	0	0	0	0
JULY 23, 1967	Hull Damage	100	40	40	30
DES MOINES, IA					
TRANS WORLD	Deaths	1	1	1	1
BOEING 707	Injuries	10	10	10	10
NOVEMBER 6, 1967	Hull Damage	100	75	75	65
ERLANGER, KY					
TRANS WORLD	Deaths	70	70	N/A	N/A
CONVAIR 880	Injuries	12	12	N/A	N/A
NOVEMBER 20, 1967	Hull Damage	100	100	N/A	N/A
CONSTANCE, KY					
FRONTIER AIRLINES	Deaths	2	2	2	2
DOUGLAS DC 3	Injuries	0	0	0	0
DECEMBER 21, 1967	Hull Damage	100	100	100	100
DENVER, CO					

1968

<u>ACCIDENT</u>		CFR FACILITIES			
		<u>NONE</u>	<u>EXISTING</u>	<u>OPTIMUM</u>	<u>PERFECT</u>
SOUTHERN AIRWAYS	Deaths	0	0	0	0
MARTIN 404	Injuries	0	0	0	0
JANUARY 1, 1968	Hull Damage	100%	100%	40%	20%
OXFORD, MS					
OZARK AIRLINES	Deaths				
DC 9	Injuries				
MARCH 27, 1968	Hull Damage				
ST. LOUIS, MO					
			NO CFR BENEFITS		
UNIVERSAL AIRLINES	Deaths	0	0	0	0
DC 7	Injuries	0	0	0	0
JULY 2, 1968	Hull Damage	100	50	50	50
PHILADELPHIA, PA					
PIEDMONT AIRLINES	Deaths	35	35	35	35
FH 227	Injuries	2	2	2	2
AUGUST 10, 1968	Hull Damage	100	100	100	100
CHARLESTON, WV					
NORTH CENTRAL	Deaths	27	27	27	27
CONVAIR 580	Injuries	18	18	18	18
DECEMBER 27, 1968	Hull Damage	100	80	80	70
CHICAGO, IL					

1969

CFR FACILITIES

<u>ACCIDENT</u>		<u>NONE</u>	<u>EXISTING</u>	<u>OPTIMUM</u>	<u>PERFECT</u>
COMPANIA DOMINICANA	Deaths	10	10	N/A	N/A
DOUGLAS DC4	Injuries	0	0	N/A	N/A
JUNE 23, 1969	Hull Damage	100%	100%	N/A	N/A
MIAMI, FL					
JAPAN AIRLINES	Deaths	3	3	3	1
CONVAIR 880	Injuries	2	2	2	2
JUNE 24, 1969	Hull Damage	100	90	90	90
MOSES LAKE, WA					
SEABOARD WORLD	Deaths	0	0	0	0
DOUGLAS DC8	Injuries	0	0	0	0
OCTOBER 16, 1969	Hull Damage	100	90	50	20
STOCKTON, CA					

1970

CFR FACILITIES

ACCIDENTS

NONE EXISTING OPTIMUM PERFECT

NEW YORK AIRWAYS	Deaths	0	0	0	0
SIKORSKY 61L	Injuries	0	0	0	0
MARCH 4, 1970	Hull Damage	100%	0%	0%	0%
FLUSHING, NY					
DELTA AIRLINES	Deaths	0	0	0	0
LOCKHEED L 382	Injuries	0	0	0	0
MAY 18, 1970	Hull Damage	100%	20%	20%	0%
SAN FRANCISCO, CA					
TRANS CARIBBEAN	Deaths	0	0	0	0
DOUGLAS DC8	Injuries	14	14	14	14
JUNE 9, 1970	Hull Damage	100	80	80	60
BANGOR, ME					
TRANS INTERNATIONAL	Deaths	11	11	11	11
DOUGLAS DC8	Injuries	0	0	0	0
SEPTEMBER 8, 1970	Hull Damage	100	95	95	95
JAMAICA, NY					
TRANS CARIBBEAN	Deaths	2	2	2	2
BOEING 727	Injuries	0	0	0	0
DECEMBER 28, 1970	Hull Damage	100	80	80	60
ST. THOMAS, VI					

1971

CFR FACILITIES

ACCIDENT

NONE EXISTING OPTIMUM PERFECT

ALLEGHENY AIRLINES
CONVAIR 580
JUNE 7, 1971
NEW HAVEN, CT

Deaths
Injuries
Hull Damage

31	30	N/A	N/A
2	3	N/A	N/A
100%	100%	N/A	N/A

ALOHA AIRLINES
VICKERS VISCOUNT
AUGUST 8, 1971
HONOLULU, HI

Deaths
Injuries
Hull Damage

0	0	0	0
0	0	0	0
100	15	15	5

ALLEGHENY AIRLINES
CONVAIR 580
AUGUST 20, 1971
PITTSBURGH, PA

Deaths
Injuries
Hull Damage

NO CFR BENEFITS
PRECAUTIONARY STANDBY ONLY

TEXAS INTERNATIONAL
BEECHCRAFT 99
DECEMBER 17, 1971
HOUSTON, TX

Deaths
Injuries
Hull Damage

0	0	0	0
0	0	0	0
20	10	10	10

1972

CFR FACILITIES

ACCIDENT

NONE	EXISTING	OPTIMUM	PERFECT
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EASTERN AIRLINES	Deaths	0	0	0	0
DOUGLAS DC9	Injuries	0	0	0	0
MAY 10, 1972	Hull Damage	20-100	15	15	5
ATLANTA, GA	(Range)				
EASTERN AIRLINES	Deaths	0	0	0	0
DOUGLAS DC9	Injuries	3	3	3	3
MAY 18, 1972	Hull Damage	100	80	80	50
FT. LAUDERDALE, FL					
DELTA AIRLINES	Deaths	4	4	4	3
DOUGLAS DC9	Injuries	0	0	0	1
MAY 30, 1972	Hull Damage	100	90	90	70
FT. WORTH, TX					
JUGOSLOVENSKI A.T.	Deaths	0	0	0	0
BOEING 707	Injuries	16	16	16	16
AUGUST 13, 1972	Hull Damage	30-100	15	15	10
JAMAICA, NY	(Range)				
TRANS WORLD	Deaths	0	0	0	0
BOEING 747	Injuries	12	8	8	0
SEPTEMBER 1, 1972	Hull Damage	100	5	5	0
JAMAICA, NY					
TRANS WORLD	Deaths	0	0	0	0
BOEING 707	Injuries	1	1	1	1
NOVEMBER 1, 1972	Hull Damage	5-100	5	5	5
ST. LOUIS, MO	(Range)				
UNITED AIRLINES	Deaths				
BOEING 737	Injuries				
DECEMBER 8, 1972	Hull Damage				
CHICAGO, IL					
COLLISION ACCIDENT					
CHICAGO - O'HARE:					
NORTH CENTRAL	Deaths	10	10	5	0
DOUGLAS DC9	Injuries	15	15	10	6
DECEMBER 20, 1972	Hull Damage	100	100	90	50
and					
DELTA AIRLINES	Deaths	0	0	0	0
CONVAIR 880	Injuries	0	0	0	0
DECEMBER 20, 1972	Hull Damage	10	10	10	10

NO CFR BENEFITS

1973

CFR FACILITIES

ACCIDENTS

NONE	EXISTING	OPTIMUM	PERFECT
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AMERICAN AIRLINES	Deaths	0	0	0	0
BOEING 707	Injuries	0	0	0	0
MARCH 5, 1973	Hull Damage	25-100%	25%	25%	25%
DENVER, CO		(Range)			
OVERSEAS NATIONAL	Deaths	0	0	0	0
DOUGLAS DC8	Injuries	3	3	3	3
JUNE 20, 1973	Hull Damage	100	30	20	10
BANGOR, ME					
ICELANDIC AIRLINES	Deaths	0	0	0	0
DOUGLAS DC 8	Injuries	8	8	8	8
JUNE 23, 1973	Hull Damage	10-100	10	10	10
JAMAICA, NY		(Range)			
OZARK AIRLINES	Deaths				
FH 227	Injuries				
JULY 23, 1973	Hull Damage				
ST. LOUIS, MO					
			NO CFR BENEFITS		
DELTA AIRLINES	Deaths	89	89	89	89
DOUGLAS DC9	Injuries	0	0	0	0
JULY 31, 1973	Hull Damage	100	100	100	100
BOSTON, MA					
BRANIFF INT'L	Deaths	0	0	0	0
BOEING 727	Injuries	0	0	0	0
AUGUST 8, 1973	Hull Damage	20	10	10	10
WASHINGTON, DC					
PAN AMERICAN	Deaths	3	3	3	3
BOEING 707	Injuries	0	0	0	0
NOVEMBER 3, 1973	Hull Damage	100	75	75	60
BOSTON, MA					
IBERIAN AIRLINES	Deaths	0	0	0	0
DOUGLAS DC 10	Injuries	3	3	3	3
DECEMBER 17, 1973	Hull Damage	100	25	25	20
BOSTON, MA					
EASTERN AIRLINES	Deaths	5	0	0	0
DC 9	Injuries	0	0	0	0
DECEMBER 17, 1973	Hull Damage	100	25	25	20
GREENSBORO, NC					

1974

CFR FACILITIES

ACCIDENTS

NONE	EXISTING	OPTIMUM	PERFECT
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UNITED AIRLINES	Deaths	0	0	0	0
BOEING 727	Injuries	0	0	0	0
JANUARY 4, 1974	Hull Damage	100%	5%	5%	5%
TAMPA, FL					

TRANS WORLD	Deaths	0	0	0	0
BOEING 707	Injuries	0	0	0	0
JANUARY 16, 1974	Hull Damage	100	100	0	0
LOS ANGELES, CA					

PAN AMERICAN	Deaths	96	96	85	1
BOEING 707	Injuries	5	5	16	0
JANUARY 30, 1974	Hull Damage	100	100	95	70
PAGO PAGO, AMERICAN					
SAMOA					

EASTERN AIRLINES	Deaths				
DOUGLAS DC9	Injuries				
SEPTEMBER 11, 1974	Hull Damage				
CHARLOTTE, NC					

CITY FIRE DEPT RESPONSE
NO CFR BENEFITS

1975

		CFR FACILITIES			
<u>ACCIDENTS</u>		<u>NONE</u>	<u>EXISTING</u>	<u>OPTIMUM</u>	<u>PERFECT</u>
EASTERN AIRLINES	Deaths	124	115	115	115
BOEING 727	Injuries	0	9	9	9
JUNE 24, 1975	Hull Damage	100%	100%	100%	100%
JAMAICA, NY					
CONTINENTAL AIRLINES	Deaths	0	0	0	0
BOEING 727	Injuries	15	15	15	15
AUGUST 7, 1975	Hull Damage	30	30	30	30
DENVER, CO					
DELTA AIRLINES	Deaths	0	0	0	0
BOEING 727	Injuries	0	0	0	0
AUGUST 16, 1975	Hull Damage	5-100	5	5	0
PORTLAND, ME		(Range)			
AMERICAN AIRLINES	Deaths	20	0	0	0
DC 10	Injuries	20	3	3	3
AUGUST 25, 1975	Hull Damage	100	20	20	20
JAMAICA, NY					
A.T. ENTRE RIOS	Deaths	6	6	6	6
CANADAIR CL 44	Injuries	5	5	5	5
SEPTEMBER 27, 1975	Hull Damage	100	100	100	90
MIAMI, FL					
OVERSEAS NATIONAL	Deaths	0	0	0	0
DOUGLAS DC 10	Injuries	2	2	2	2
NOVEMBER 12, 1975	Hull Damage	100	100	100	50
JAMAICA, NY					

1976

CFR FACILITIES

ACCIDENT

NONE EXISTING OPTIMUM PERFECT

MERCER AIRLINES
DOUGLAS DC6
FEBRUARY 8, 1976
VAN NUYS, CA

Deaths
Injuries
Hull Damage

NO CFR BENEFITS

CONTINENTAL AIRLINES
BOEING 727
FEBRUARY 16, 1976
DENVER, CO

Deaths
Injuries
Hull Damage

0	0	0	0
1	1	1	1
100%	10%	10%	10%

AMERICAN AIRLINES
BOEING 727
APRIL 27, 1976
ST. THOMAS, VI

Deaths
Injuries
Hull Damage

37	37	37	20
38	38	38	20
100	95	90	85

ALLEGHENY AIRLINES
DC9
JUNE 23, 1976
PHILADELPHIA, PA

Deaths
Injuries
Hull Damage

NO CFR BENEFITS

TEXAS INTERNATIONAL
DOUGLAS DC9
NOVEMBER 16, 1976
DENVER, CO

Deaths
Injuries
Hull Damage

0	0	0	0
14	14	14	14
100	75	60	25

1977

NO ACCIDENTS RETAINED FOR REVIEW

1978

		CFR FACILITIES			
		NONE	EXISTING	OPTIMUM	PERFECT
CONTINENTAL AIRLINES DOUGLAS DC 10 MARCH 1, 1978 LOS ANGELES, CA	Deaths	100	2	2	0
	Injuries	50	31	31	0
	Hull Damage	100%	70%	70%	10%

Table G-1: Value of Aircraft Hulls that Would Have
Been Saved by Optimum CFR, 1966-1978
(millions of dollars)

<u>Year</u>	<u>Airport Index</u>							<u>Total</u>
	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
1966					1.600		2.400	4.000
1967					0.300	3.050	3.600	6.950
1968		0.300				0.500	0.400	1.200
1969		1.200			6.000			7.200
1970					4.000	1.500	3.800	9.300
1971							3.600	3.600
1972						17.700	44.650	62.350
1973					14.100	9.000	40.850	63.950
1974			0.600			7.600	12.000	20.200
1975					7.600		28.000	35.600
1976					0.800	9.600		10.400
1977								0.000
1978							10.500	10.500
	0.000	1.500	0.600	0.000	34.400	48.950	149.800	235.250

Table G-2: Number of Lives that Would Have Been
Saved by Optimum CFR, 1966-1978

<u>Year</u>	<u>Airport Index</u>							<u>Total</u>
	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
1966								0
1967								0
1968								0
1969								0
1970								0
1971								0
1972							5	5
1973					5			5
1974			11					11
1975							29	29
1976								0
1977								0
1978	<u>0</u>	<u>0</u>	<u>11</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>98</u> 132	<u>98</u> 148

Table G-3: Number of Injuries that Would Have
Been Prevented by Optimum CFR, 1966-1978

<u>Year</u>	<u>Airport Index</u>							<u>Total</u>
	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
1966								0
1967								0
1968								0
1969								0
1970								0
1971								0
1972							9	9
1973								0
1974								0
1975							17	17
1976								0
1977								0
1978							19	19
							<u>45</u>	<u>45</u>

Table G-4: Air Carrier Crash Benefits with Optimum
CFR, 1966-1978, Excluding Psychological
Benefits (millions of dollars)

<u>Year</u>	<u>Airport Index</u>							<u>Total</u>
	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
1966					1.600		2.400	4.000
1967					0.300	3.050	3.600	6.950
1968		0.300				0.500	0.400	1.200
1969		1.200			6.000			7.200
1970					4.000	1.500	3.800	9.300
1971							3.600	3.600
1972						17.700	47.376	65.076
1973					16.250	9.000	40.850	66.100
1974			5.330			7.600	12.000	24.930
1975					7.600		41.558	49.158
1976					0.800	9.600		10.400
1977								0.000
1978							53.856	53.856
	0.000	1.500	5.330	0.000	36.550	48.950	209.440	301.770

Table G-5: Value of Aircraft Hulls that Would
 Been Saved by Perfect CFR, 1966-1978
 (millions of dollars)

<u>Year</u>	<u>Airport Index</u>							<u>Total</u>
	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
1966					1.650		2.400	4.050
1967					0.350	4.250	3.700	8.300
1968		0.400				0.500	0.600	1.500
1969		1.200			9.600			10.800
1970					8.000	1.500	4.600	14.100
1971							4.000	4.000
1972						20.100	50.600	70.700
1973					15.600	10.800	44.400	70.800
1974			3.600			7.600	15.000	26.200
1975					8.000		45.900	53.900
1976					1.200	11.700		12.900
1977								0.000
1978							<u>31.500</u>	<u>31.500</u>
	0.000	1.600	3.600	0.000	44.400	56.450	202.700	308.750

Table G-6: Number of Lives that Would Have
Been Saved by Perfect CFR, 1966-1978

<u>Year</u>	<u>Airport Index</u>							<u>Total</u>
	<u>E</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
1966								0
1967								0
1968								0
1969		2						2
1970								0
1971			1					1
1972							11	11
1973					5			5
1974			95					95
1975							29	29
1976					17			17
1977								0
1978							<u>100</u>	<u>100</u>
	0	2	96	0	22	0	140	260

Table G-7: Number of Injuries that Would Have Been
Prevented by Perfect CFR, 1966-1978

<u>Year</u>	<u>Airport Index</u>							<u>Total</u>
	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
1966								0
1967								0
1968								0
1969								0
1970								0
1971								0
1972							21	21
1973								0
1974								0
1975							17	17
1976					18			18
1977								0
1978					—		<u>50</u>	<u>50</u>
					18		88	106

Table G-8: Air Carrier Crash Benefits with
Perfect CFR, 1966-1978, Excluding
Psychological Benefits (millions
of dollars)

	Airport Index							
<u>Year</u>	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>Total</u>
1966					1.650		2.400	4.050
1967					0.350	4.250	3.700	8.300
1968		0.40				0.500	0.600	1.500
1969		2.06			9.600			11.660
1970					8.000	1.500	4.600	14.100
1971			0.430				4.000	4.430
1972						20.100	56.674	76.774
1973					17.750	10.800	44.400	72.950
1974			44.450			7.600	15.000	67.050
1975					8.000		59.458	67.458
1976					9.662	11.700		21.362
1977								0.000
1978							77.700	77.700
	0.000	2.460	44.880	0.000	55.012	56.450	268.532	427.334

Table G-9: Comparison of Annual Benefits Under
Existing, Optimum, and Perfect CFR,
1966-1978 (Air Carrier Accidents
Only, Psychological Benefits Excluded)

	Airport Index							
	<u>L</u>	<u>A</u>	<u>AA</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>Total</u>
Existing	0.000	0.100	0.036	0.000	2.512	4.004	16.198	22.850
Optimum	0.000	0.125	0.444	0.000	3.046	4.079	17.453	25.147
Perfect	0.000	0.205	3.740	0.000	4.584	4.704	22.378	35.611