

## SECOND ANNUAL REPORT

## Idaho Fire Statistics

January 1, 1983 - December 31, 1983

W. K. "Bill" Wallis State Fire Marshal

> Wayne L. Soward Director

Department of Insurance

## DEPARTMENT OF INSURANCE State of Idaho

Wayne L. Soward Director Bill Wallis State Fire Marshal

SECOND ANNUAL REPORT

by STATE FIRE MARSHAL

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#### SECOND ANNUAL REPORT arshalfs Office under the doester se

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State Fire Marshal

STATE & STATE

#### **HISTORY:**

After many attempts to implement the office of State Fire Marshal by state insurance directors, the insurance industry, and the fire service, it finally became a reality when on March 22, 1982, Governor John Evans signed HB 487 into law. This bill provided the Fire Marshal with funding from the insurance industry and placed the office in the Department of Insurance under the direction of Director Trent M. Woods. The bill also provided guidelines as to its function. The bill adopted the Uniform Fire Code statewide and made all fire chiefs assistants to the State Fire Marshal.

This latest attempt to set up the office of Fire Marshal got started when State Representative Larry Harris from Boise attended the National Legislative Conference on Arson in Dallas, Texas. He went there at the request of Representative Tom Stivers of Twin Falls. After he returned he called a meeting at the Statehouse with several fire officials in the immediate vicinity, along with several representatives of the Legislature, to discuss the arson and fire problems in this state. It was the consensus of this group that in order to combat the growing arson and fire problem, the fire service needed a central authority to identify the arson and fire problems throughout the state and take measures to reduce them. Then, Representative Harris in a memo to Representative Stivers stated, "The prime officer to establish central authority would likely be the Idaho State Fire Marshal, a position authorized but unfunded, and an equally important function will be a comprehensive state arson reference information service."

With input from the fire service, the insurance industry, and the Legislative Committee, HB 487 was drafted and after many amendments it passed both houses of the Legislature. There were many people involved in the passage of this bill; both government and industry worked hand-in-hand in its promotion as they fully recognized something had to be done to lessen or stop the growing fire losses in our state.

It is interesting to note that Idaho was one of only two states without a Fire Marshal, but the concern over the office goes back many years.

A report from the State Insurance Commissioner C. D. Goaslind, dated January 1, 1909, states: "I believe that the present fire waste in this country is entirely unnecessary and that to reduce some of it is essential, first, that the public should be brought to understand that property once destroyed by fire is gone forever and is not, nor cannot be replaced by the distribution of insurance. Second, that the states should adopt and enforce a building code which requires an improved type of safe construction. Third, that the various cities should adopt an ordinance governing construction and improvements of buildings and as regards the question of explosives and inflammables, regulating the storing of refuse, waste, etc. and to provide for the enforcement of such ordinance. Fourth, that the states establish and support the office of Fire Marshal and confer on the Fire Marshal by law the right to examine the cause and origin of all fires, and in the event of arson or where crime has been committed, submit the facts to the grand jury or proper indicting body."

Again in January of 1921, State Director of Insurance, Howard J. Brace, in his report states: "We believe by creating a State Fire Marshal's Department much can be accomplished towards the reduction of fire waste in Idaho. This recommendation has been made in many previous reports of the Insurance Commissioner of this state and the need for legislation along this line is more pronounced today than ever before."

Again, on June 3, 1946, Edward B. McMonigle, Director of Insurance, stated: "Most all our western states now have a State Fire Marshal's Office under the director supervision of the Insurance Department and in those states an effective fire prevention program is carried on."

After 73 years when it was first requested, the office of the State Fire Marshal is now a reality !!

#### NARRATIVE:

My first full year as State Fire Marshal has been a real learning experience. The job has taken me to every area of the state to meet with fire departments, city councils, fire district commissioners, sheriffs, city police, county and city planners, school district boards, and many other people who have some specific problems relating to fire prevention matters. I have also met with and have addressed many groups from industry explaining what my role is and how it relates to their particular function. All told, I have been met with a very positive reaction from all of the different factions that I deal with concerning their fire prevention and protection matters. From these various meetings, I have observed some progress in the areas of fire prevention, arson control, fire suppression, administration, and cooperation between agencies.

The most positive reaction of all has come from local fire jurisdictions who now have state authority to fulfill their duties. In the past our fire departments have been hampered by special interests within their communities compromising fire prevention and protection practices. Fire officials have told me now that they have a State Fire Marshal to back them up, their jobs are much easier.

My office duties are mostly filled with fire code interpretations which I feel is of the utmost importance because it provides uniformity of enforcement throughout the state. Other office duties consist of supervising my staff, coordinating with professional groups on fire code matters, collecting and analysing fire data, planning, promulgating regulations, working with various state and federal agencies, and numerous other items. Together with the travel and meetings plus the office duties I have found my time very much occupied.

We still have a long way to go in order to lower the loss of life and property to fire in our state. I feel confident, however, that we have made progress and will continue to do so in the future.

#### GOALS AND OBJECTIVES:

In my first annual report I stated four goals that I thought could be achieved with the resources I have at hand. Those were: (1) regulatory functions; (2) arson investigations; (3) fire data collection and analysis; and (4) public education. I will state one at a time what has been accomplished in these categories:

1. Regulatory Functions.

The 1982 edition of the Uniform Fire Code has been adopted as a statewide

minimum, fire-safety standard. The enforcement of this standard has been delegated to local authorities with support from my office. Our support consists of training fire officials through a fire code course and then certifying them with an examination. Other support measures include technical expertise, planning, and inspections when necessary. Fire Prevention is accomplished with what we like to call a three-legged stool, being fire inspection, code enforcement, and public education. With the program I have outlined, I feel two legs of the stool will be and are in place in some areas of the state.

2. Arson Investigations.

One of the objectives has been accomplished in this category, that being an arson reporting form. With this reporting format we feel we can provide information on who is starting fires, what method they are using to start fires, and inspire a better investigative effort for arson.

A second objective is to develop better training for fire investigators. This will be a very difficult task because of all the different entities involved, namely; fire, police, insurance, and prosecution personnel. What we will attempt to do is to identify the roles each of these entities play in an investigation and then design courses for each.

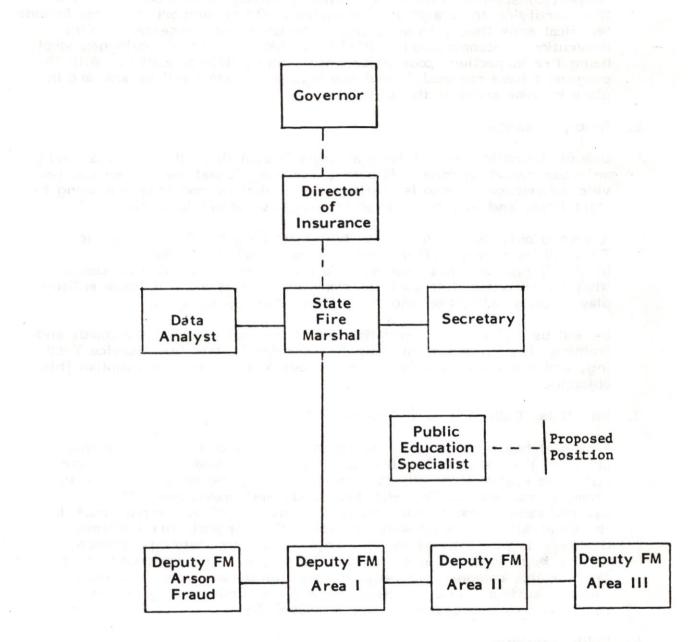
We will be working in cooperation with the police officers' standards and training, the Bureau of Investigative Services, State Fire Service Training, and the Idaho Prosecuting Attorneys Association to accomplish this objective.

3. Fire Data, Collection, and Analysis.

This goal has been achieved as we have become one of the reporting states to the National Fire Incident Reporting System. This is a computerized system that collects data from across the nation in order to promote programs dealing with fire safety and prevention. We will use the same format in our own state, only we will also report back to the individual fire departments detailing their specific fire problems. Our reports presently represent about 70% of our state's population, and we hope to cover even more in the future. The work load, thus far, for this category has required one fulltime employee. We hope this will suffice. The fire data you will see further along in this report is from the system I have described here.

4. Public Education.

Nothing, thus far, has been accomplished in this category other than planning for our future role. Our fire data shows that public education should be our primary goal. Most fires in Idaho are found to be in the single family dwelling. These fires are mostly caused by people doing careless things. There is only one way to combat this problem and that is through education. People must be convinced that it is worthwhile to modify those aspects of their personal behavior which contribute to fires. In order to deliver a statewide fire-safety public education program, I will need the cooperation of many state and local agencies, news media, and public service groups. I also will need another employee who is skilled in developing and delivering educational programs. This program would not only provide a good fire-safety



message but would provide visibility for our other goals and the state in general.

At this writing four positions are now in place, that of the State Fire Marshal, secretary, data analyst, and Deputy Fire Marshal in charge of arson and insurance fraud. The areas I, II, and III Deputy Fire Marshal positions have been approved but will not be operative until the fall of 1984. I have proposed one more position in the above organizational chart, that of public education specialist. The reason for this proposed position is included in the narrative portion of this report.

I believe a staff of this size would suffice for Idaho for the foreseeable future and would serve to accomplish most of the goals we have set for ourselves.

## RECAP OF ACTIVITY REPORTS FOR 1983

## STATE FIRE MARSHAL

Fire Inspections 27		
Arson Investigations	10	
Business Meetings	102	
Public Relations Appearances	31	
Schools - Seminars Attended	11	
Fire Code Interpretations	404	
Letters Written	4,967	
Long Distance Calls	570	
Fire Losses Reported/Insurance	\$ 12, 822,399	

## RECAP OF INVESTIGATION REPORTS FOR 1983

## DEPUTY STATE FIRE MARSHAL - ARSON/FRAUD INVESTIGATOR

Phone Calls	407
Cases Received	20
Cases Closed	15
Cases Pending as of 12-31-83	19
Fraud Recoveries	\$291,305
Arson Recoveries	\$ 40,000

#### Part II

#### STATE FIRE MARSHAL

Department of Insurance 700 West State Street Boise, ID 83720 Ph: (208) 334-2250

#### A REPORT AND ANALYSIS OF FIRES IN IDAHO

### (1 Year)

#### January 1, 1983 - December 31, 1983

This report is based on data gathered from the Idaho State Fire Incident Reporting System which is now administered by the State Fire Marshal. There are currently 55 fire departments out of 225 that are now reporting within this system. The 55 fire departments represent approximately 65% of the state's population and are located in every geographical area throughout the state. Therefore, the data shown in this report will closely identify the fire problems statewide and within different localities as well.

#### ALL CALLS

Our reporting fire departments responded to 7,975 calls total. Of these calls, 4,377 were fires; mutual aid was given or received between fire departments 178 times; overpressure ruptures 28 times, hazardous conditions were present and abated 829 times; service calls 358 times; and intent 1,139 times; false alarms 983 times.

Complete fire losses in all categories totalled \$10,339,358.

The total of all calls does not take into consideration rescue or ambulance calls. Most of our fire departments are doing this work too. I would estimate that if these calls were considered, the total all calls would be at least three (3) times 7,975 or 23,925.

#### ALL FIRES

#### Total: 4,377 fires

I. By type of action taken:

		No.	%	
Extinguishment		3,133	71.57	
Rescue Only		9	.20	
Investigation Only		901	20.58	
Remove Hazard		50	1.14	
Standby		238	5.43	
Salvage	2 GAT 1	8	.18	
Other		31	.69	
Unknown		7	.15	

Of the total 4,377 fires, there were 1,883 structure fires; 198 outside fires with value; 673 vehicle fires, 1,212 brush/grass fires; 394 refuse fires; 4 explosions; 4 spill fires; and 9 not classified.

ANALYSIS: Extinguishing equipment from fire department, vehicles had to be used 71.57% of the time. This indicates that most fires are beyond the general public's capability to control them. The rest of the total indicates that the public relies upon their fire departments to investigate and abate hazards.

	Structure Fires	Vehicle Fires	Outside/Rest of Fires	Total
		1.1087-2.1		
JAN.	220 - 11.68%	45 - 6.68%	40 - 2.19%	305 - 6.96%
FEB.	206 - 10.93%	52 - 7.72%	41 - 2.25%	299 - 6.83%
MAR.	188 - 9.98%	40 - 5.94%	68 - 3.73%	296 - 6.76%
APR.	151 - 8.01%	47 - 6.98%	106 - 5.82%	304 - 6.94%
MAY	109 - 5.78%	63 - 9.36%	93 - 5.10%	265 - 6.05%
JUNE	103 - 5.46%	72 - 10.69%	318 - 17.46%	493 - 11.26%
JULY	96 - 5.09%	68 - 10.10%	499 - 27.40%	663 - 15.14%
AUG.	71 - 3.77%	55 - 8.17%	256 - 14.05%	382 - 8.72%
SEPT.	105 - 5,57%	55 - 8.17%	220 - 12.08%	380 - 8.68%
OCT.	127 - 6.74%	59 - 8.76%	116 - 6.37%	302 - 6.89%
NOV.	182 - 9.66%	53 - 7.87%	44 - 2.41%	279 - 6.37%
DEC.	325 - 17.25%	64 - 9.50%	20 - 1.09%	409 - 9.34%
	1,883	673	1,821	4,377

II. By Month:

ANALYSIS: The winter months are the highest totals in the structure fire category; January, February, November and December are 49.52% of the total. Heating systems are the biggest cause of this mostly brought

on by the high use of solid fueled appliances. Vehicle fires show a slight increase in the spring/summer months although December is fairly high. You could attribute this to high vehicle use during these periods. Outside fires are very high in the spring/summer months. Most of these are brush/grass fires and, of course, are very dry at this time. Also, this is the time of year that people are clearing brush/grass.

III. By day of Week:

	Structure Fires	Vehicle Fires	Outside/Rest of Fires	Total
SUNDAY	274 - 14.55%	59 - 8.76%	231 - 12.68%	564 - 12.86%
MONDAY	241 - 12.79%	95 - 14.11%	296 - 16.25%	632 - 14.43%
TUESDAY	263 - 13.96%	104 - 15.45%	245 - 13.45%	612 - 13.98%
WEDNESDAY	269 - 14.28%	103 - 15.30%	251 - 13.78%	623 - 14.23%
THURSDAY	247 - 13.11%	102 - 15.15%	261 - 14.33%	610 - 13.93%
FRIDAY	273 - 14.49%	119 - 17.68%	271 - 14.88%	663 - 15.14%
SATURDAY	316 - 16.78%	91 - 13.52%	266 - 14.60%	673 - 15.37%
	1,883	673	1,821	4,377

ANALYSIS: There is hardly any difference between one day of the week or another in the frequency of fires in the total column. There does, however, seem to be less vehicle fires on Sunday. This could mean most people are home on this day and not using a vehicle. There is no day that is significantly low enough to reduce fire protection.

IV. By time of Alarm:

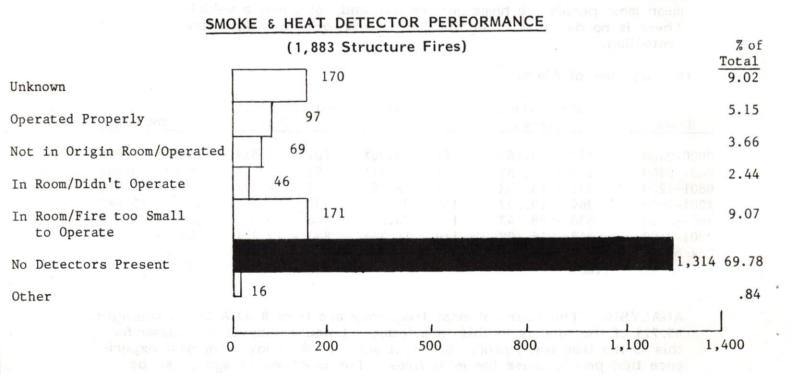
Hours	Structure Fires	Vehicle Fires	Outside/Rest of Fires	Total
0000-0400	173 - 9.18%	61 - 9.06%	101 - 5.55%	335 - 7.65%
0401-0800	173 - 9.18%	51 - 7.57%	52 - 2.86%	276 - 6.30%
0801-1200	291 - 15.45%	129 - 19.16%	167 - 9.17%	587 - 13.41%
1201-1600	364 - 19.33%	155 - 23.03%	597 - 32.78%	1,116 - 25.49%
1601-2000	530 - 28.14%	167 - 24.81%	548 - 30.09%	1,245 - 28.44%
2001-2400	347 - 18.42%	110 - 16.34%	350 - 19.22%	807 - 18.43%
Unknown	526%		633%	
	1,883	673 *	1,821	4,377

ANALYSIS: The hours of most frequency are from 8:00 A.M. to midnight. 85.77% of the total is in this time frame. I would suspect the reason for this is the time when people are most active. We know from past experience that people cause the most fires. The unknown category can be explained as reporting errors.

#### V. By dollar loss classification:

Dollars	Structure Fires	Vehicle Fires	Outside/Rest of Fires	Total
	100 6 27%	00 11 007	59 - 3.24%	259 - 5.91%
1- 99	120 - 6.37%	80 - 11.88%		803 - 18.34%
100- 999	362 - 19.22%	320 - 47.54%	121 - 6.64%	
1,000- 9,999	366 - 19.43%	131 - 19.46%	44 - 2.42%	541 - 12.36%
10,000- 24,999	109 - 5.78%	17 - 2.52%	738%	133 - 3.03%
25,000- 49,999	52 - 2.76%	689%		60 - 1.37%
50,000-249,999	26 - 1.38%	114%		2761%
250,000-999,999	631%			613%
No Loss	799 - 42.43%	107 - 15.89%	1,530 - 84.02%	2,436 - 55.65%
Unknown	43 - 2.28%	<u>11</u> - 1.63%	58 - 3.19%	112 - 2.55%
	1,883	673	1,821	4,377

ANALYSIS: This category only proves the value of fire protection services. The biggest percentages in all categories are in the "No Loss - \$10,000" loss bracket and the "No Loss" column. Fire control works most of the time as only partial losses are indicated for the most part. It is interesting to note that 87.50% of the total structure fire category is in the "No Loss to \$10,000" bracket. Fire departments do save a lot of money when you consider what this classification would look like if fire services were non-existent.



ANALYSIS: Of the detectors that are installed, we had a fair success rate: Known installations 383 versus only 46 known failures; 88% success. What is a startling statistic is there are still many properties with no

#### 9.4

alarms present. Even residential properties recorded 1,012 fires without detectors out of 1,519 fires, or 66.62% residences without detectors. Detectors for homes are now affordable and we must make more people aware of their life saving potential. I would also suspect that the detectors that have been reported to have failed are doing so because of a lack of maintenance. Programs need to be initiated to educate our public as to detector maintenance.

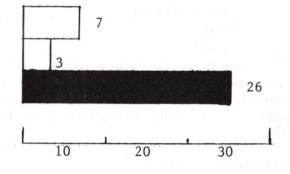
## FIRE SPRINKLER PERFORMANCE (1,883 Fires)

Known fires with sprinklers installed in buildings = 36 Fires.

Equipment Operated Properly

Equipment Should Have Operated Properly/Didn't

Equipment Present/Fire too Small to Operate Euipment



ANALYSIS: It is startling to see that our success rate with sprinkler systems is far below the national average: 57.1% state versus 96% national. The only reason for this is a lack of inspection and maintenance.

#### CASUALTY SUMMARY

There were 150 Fire casualties reported. 65 were fire personnel, 1 other emergency personnel, and 84 were civilians. Of this total, 10 deaths resulted in the civilian category.

Blackfoot Fire Department	2
Cascade City Fire Department	1
Cascade Rural Fire Department	1
Jerome Fire Department	1
Lewiston Fire Department	1
Nampa Fire Protection District	1
North Fremont Fire Protection District	1
Pocatello Fire Department	1
Weiser Fire Department	1
Total Deaths:	10
Total Deaths:	10

#### Total Casualties BY:

	Fire Service	Civilian	Total
1. Sex: Male Female	65	58 27	123 27 150
2. Part of Body Injured:			
Head, neck Body, trunk, back Arm Leg Hand Foot Internal Multiple Parts Other	8 12 3 4 12 2 14 6 4	3 8 11 1 6 1 29 21 4	11 20 14 5 18 3 43 27 8

ANALYSIS: The three highest totals in this category for the fire service: Body, trunk, back; Hand; and Internal indicate a possible lack of physical conditioning, as in the back area, and perhaps not wearing proper safety equipment, as in Hand and Internal (i.e., gloves and breathing apparatus).

3. Nature of Injury:

	Fire Service	Civilian	Total	
Burns & smoke	3	14	17	
Burns only	12	25	37	
Smoke only	14	21	35	
Wound, bleeding	10	7	17	
Dislocation, fracture	2	9	11	
Complaint of pain	5	1	6	
Shock	0	1	1	
Strain, sprain	15	0	15	
Other	4	5	9	

ANALYSIS: This category for the fire service only helps indicate what was stated in analyzing the previous category. On the civilian side, burns along with smoke inhalation are in the highest numbers. This is hardly surprising as it would be a normal result of being caught in a fire situation.

4. Activity at time of injury:

	Fire Service	Civilian	Total
Escaping	1	14	15
Rescue attempt	0	4	4
Fire control	47	24	71
Response/return	3	0	3
Cleanup/salvage	10	2	12
Sleeping	0	4	4
Unable to act	1	5	5
Other	2	3	4

ANALYSIS: What is most unusual in this category is the high rate of injury of civilians doing fire control. This may indicate some public education being done to alert the populace that only the fire department is equipped to handle larger fires, and only small fires that can be handled with a portable fire extinguisher should even be attempted by civilians.

% of Total	83.42%	2.36%	.49%	1.15%	4.01%	2.58%	6.97%	1.21%	1.21%	-
	1,519	11) 200 200 200 200 200 200 200 200 200 20								
									n Ber San San San San San San San San San San San San San San San San	
		43	6	21	73	47	127	22	22	
rixed Property Use:	Residential	Assembly	Educational	Institutional	Store/Office	Indus/Manufacturing	Storage	Special	Unclassified	

(1,883 Fires)

I. By Fixed

tion process to try to change their unsafe behavior. All other properties listed are generally inspected for hazards, although some fire departments are not yet state. Since we cannot inspect most of these properties for fire hazards (one Idaho Law), we can only try to educate these people through a public educa-Residential properties are by far the biggest fire problem in our and two family dwellings and farms of more than five acres are exempt under doing fire inspections. This category proves the worth of fire inspection. ANALYSIS:

1,050 1,200 1,350 1,500 1,650 1,800 1,950

005

750

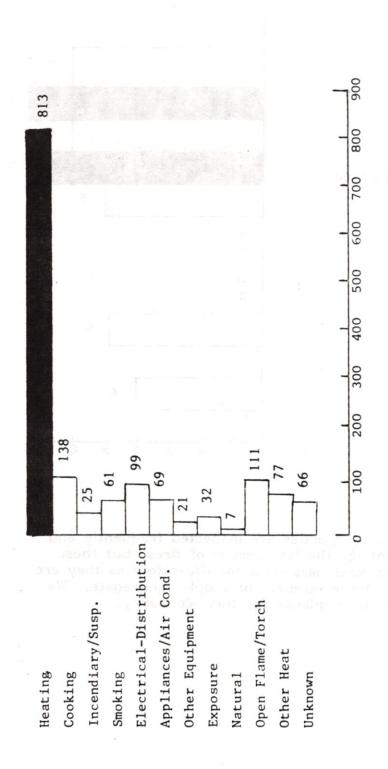
600

450

300

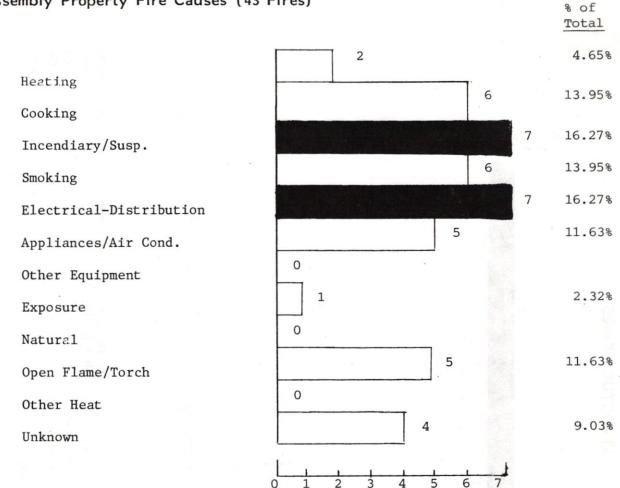
150

II. Residential Fire Causes (1, 519 Fires)

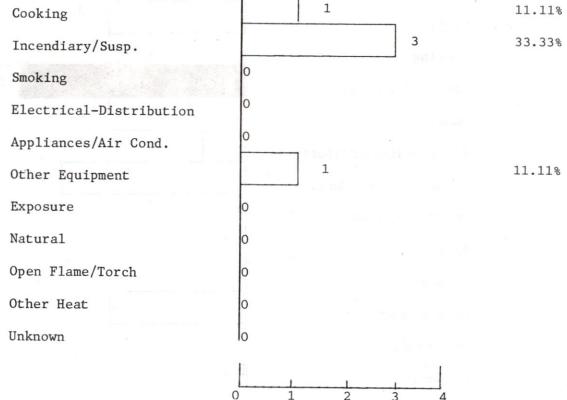


(88), 673 + 88 = 761 from the total heating column (813), we would only have 52 fires installed in recent years. If we subtract chimney fires (673) and fires from stoves The main reason is still the solid fueled heating stoves that have been from heating. Instead of heating being the leading cause it would rank 8th on the Heating systems are by far the biggest problem we have in residential Much more public education needs to be done on the heating stove problem. ANALYSIS: properties. list.

#### III. Assembly Property Fire Causes (43 Fires)



ANALYSIS: These properties are inspected frequently and that would account for the low number of fires, but these properties are the most hazardous for life-safety as they are the ones in which large numbers of people congregate. We must never relax our vigilance for this occupancy.



% of

Total

44.44%

4

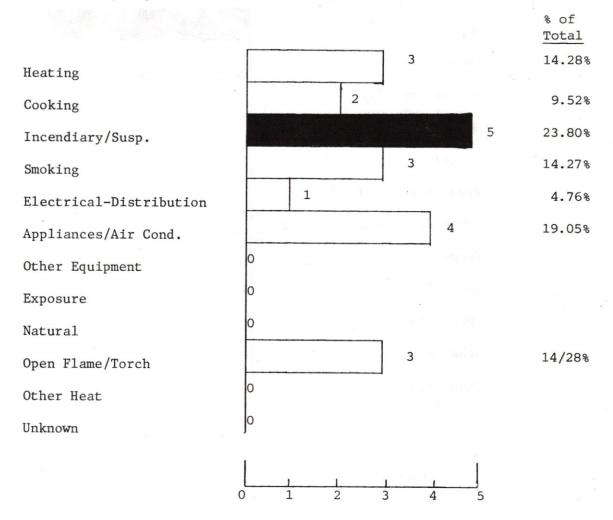
ANALYSIS: Heating leads in this property type, but not very many fires in this occupancy are recorded. These properties are inspected frequently and generally have custodial staffs that carry out good maintenance procedures. The best thing to say here would be to continue the good work.

## STRUCTURE FIRES

IV. Educational Property Fire Causes (9 Fires)

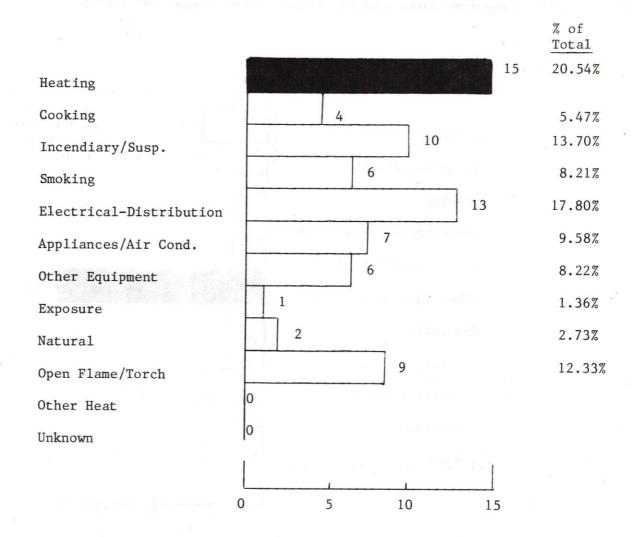
Heating

## V. Institutional Property Fire Causes (21 Fires)



ANALYSIS: These properties show a good fire record generally because they are inspected frequently for hazards and are generally staffed around-the-clock. Hospitals, nursing homes, etc., make up this category. The life-safety potential of this occupancy makes it crucial that a good effort from the fire department continue.

#### VI. Store/Office Property Fire Causes (73 Fires)



ANALYSIS: Heating is a high cause in this property type. I would suspect some wood burning stoves are finding their way into this property.

Industrial Manufacturing Prope	erty Fire Cause (47	Fires)	% of
			Total
Heating	3		6.38%
Cooking	5		10.64%
Incendiary/Susp.	4		8.51%
Smoking	0	, Local	6.38%
Electrical-Distribution	3		
Appliance/Air Cond.	3		6.38%
Other Equipment		16	34.04%
Exposure	2		4.26%
Natural	2		4.26%
Open Flame/Torch		9	19.15%
Other Heat	0		
Unknown	lo		
	0 4 8	12 16	

VII.

ANALYSIS: Of major concern in these properties is the special equipment within them. This equipment makes up 34.04% of the total. Special equipment would consist of manufacturing, assembly, packaging, etc. equipment.

## VIII. Storage Property Fire Causes (127 Fires)

STRUCTURE FIRES

% of Total

Heating	9	7.08%
Cooking	1 desce A	.78%
Incendiary/Susp.	18	14.17%
Smoking	1 and the hold	.78%
Electrical-Distribution	a ana ang ang ang ang ang ang ang ang an	7.08%
Appliance/Air Cond.	5	3.94%
Other Equipment	23	18.11%
Exposure	12	9.45%
Natural	6	4.72%
Open Flame/Torch		35 27.56%
Other Heat	8	6.30%
Unknown	0	
dollar tosers in the prophilies are also brower of methods.	10 20 30	40

ANALYSIS, These properties, barns, warehouses, etc. are very susceptible to fire and must be inspected frequently. The highest category is open flame/torch which would account for burning weeds around these properties. Also, equipment within the properties is a high category as well. These properties need more attention from the fire service.

#### IX. Dollar Loss by Fixed Property Use

Residential	\$ 4,921,034
Assembly	875,802
Educational	80,874
Institutional	8,715
Store-Office	892,105
Industrial/Manufacturing	418,740
Storage	1,221,092
Special	31,886
Unclassified	483,100
TOTAL:	\$ 8,933,348

ANALYSIS: The total dollar losses in the residential and storage properties are also the highest ranking in number of incidents. These two properties need some more work.

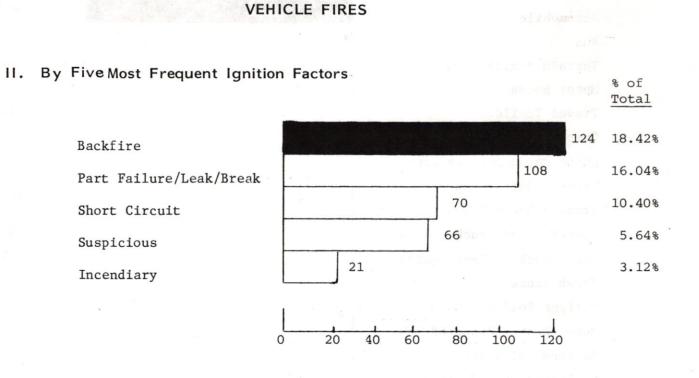
#### VEHICLE FIRES

I. By	Mobile	Property	Type
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		IOCAL
Automobile	404	60.02%
Bus	3	.44%
Terrain Vehicles	10	1.48%
Motor Homes	18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	2.67%
Travel Trailer	7	1.04%
Camping Trailer	1	.14%
Other Passenger Vehicles	7	1.04%
Truck - Over 1 Ton	22	3.26%
Truck - Under 1 Ton	68	10.10%
Semi-Trailer Truck	11	1.63%
Tank Truck - Flam/Liquids	2	.29%
Trash Truck	4	.59%
Freight Road - Other	1	.14%
Motor Boat - Under 65 H.P.	1	.14%
Personal Aircraft	1	.14%
Helicopter Non/Military	1	.14%
Earth Moving Equipment	5	.74%
Construction Equipment	1	.14%
Materials Handling Equipment	4	.59%
Tractor - Harvester	13	1.93%
Garden Equipment	4	.59%
Waste Container-Mechanical	62	9.21%
Special Vehicles - Other	3	.44%
Other MObile Property	1	.14%
Unclassified	19	2.82%
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% of Total

ANALYSIS: The automobile is by far the highest total, but also there are more in use than the other categories. The total picture showing tanker trucks, helicopter, aircraft, construction equipment would point out that fire departments should be prepared for flammable liquid fires; also freight trucks that could have hazardous materials loaded on them.



ANALYSIS: The leading category is backfire and this is generally cured by a tune-up. Also, it has been my experience that most backfire vehicle fires do not have an air cleaner on the carburetor.

This is one area we could work on. Many of the fire causes are from wrecks and just plain worn out equipment.

# VEHICLE FIRES

## III. Dollar Loss by Mobile Property Type

Automobile	\$ 469,453
Bus	2,100
Terrain Vehicles	12,700
Motor Homes	24,365
Travel Trailer	30,157
Camping Trailer	800
Other Passenger Vehicles	21,850
Truck - Over 1 Ton	95,450
Truck - Under 1 Ton	54,955
Semi-trailer Truck	86,825
Tank Truck - Flam/Liquids	600
Trash Truck	10,000
Freight Road Other	100
Motor Boat-Under 65 H.P.	200
Personal Aircraft	1,500
Helicopter Non/Military	3,000
Earth Moving Equipment	50,900
Construction Equipment	4,000
Materials Handling Equipment	35,050
Tractor, Harvester	80,350
Garden Equipment	800
Waste Container, Mechanical	1,600
Special Vehicles - Other	600
Other Mobile Property	8,000
Unclassified	2,440
TOTAL:	\$ 997,795

% of Total	9.34%	1.21%	1.54% 8.35%	4.45%	4.66%	.10%	.82% 1.42%	8.18%	.21%	10.00%		
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OUTSIDE FIRES (1,821 Fires)

By Fixed Property Use

Residential

Public Assembly Educational Store/Office Industrial/Manuffac Storage

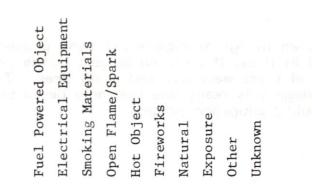
OTHER:

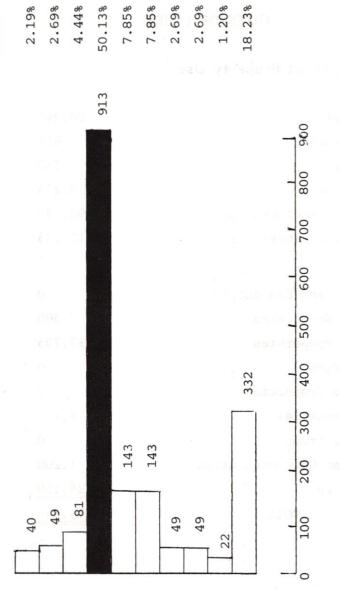
Construction, Unoccu Special Structures Outdoor Properties Water Areas Railroad Properties Road Properties Aircraft Areas Equipment Operat/Are Unclassified

OUTSIDE FIRES

11. Outside Fire Causes By Form of Heat of Ignition

% of Total





burning that gets out of control, probably by windy conditions or unattended ANALYSIS: This data shows that 50.13% of the outside fires are deliberately Fireworks also show up caused by people burning weeds and brush. In other words, controlled burning. Burning permits would be in order here. fairly strong here.

## OUTSIDE FIRES

## III. Dollar Loss by Fixed Property Use

Residential	28,342
Public Assembly	615
Educational	550
Store/Office	9,225
Industrial/Manufacturing	98,390
Storage/Agriculture	117,035
OTHER:	
Construction/Unoccupied	0
Special Structures	500
Outdoor Properties	17,705
Water Areas	0
Railroad Properties	0
Road Properties	4,728
Aircraft Areas	0
Equipment Operating Areas	1,200
Unclassified	26,550
TOTAL:	304,840

ANALYSIS: Even though storage/agricultural properties only numbered 81 fires, it came out largest in the loss column. Most of these were hay and grain fires. The outside fire category is really one that only be curbed through the public education process. NFIRS ARSON REPORT 1

SUMMARY OF INCENDIARY AND SUSPICIOUS FIRES By Time of Day, Day of Week, and Fixed Property Use By State \*\*\* 01/01/83 - 12/31/83

Unknown Fires 109 418 45 23 37 121 82 57 53 56 55 76 418 13 24 N H 61 \$1,898,016 9 60 Fatalities FF Civ. 17 17 17 Injuries H M 50 M 3 17 Civ. 4|| 4|| 4 2 4 6,000 50,265 2,635 612,126 116,199 \$1,868,728 159,335 130,033 \$1,868,728 176,334 606,900 195,080 711,950 12,000 192,994 95,732 555,965 122,543 \$1,868,728 Dollar Loss 5 5 \$1,868,728 100.0 15.8 21.9 100.0 11.2 15.8 13.4 16.6 5.7 10.1 19.7 26.5 12.2 14.5 16.2 2 4 9. 0/0 Total Fires 107 86 55 144 119 543 31 66 86 73 90 79 88 543 M N H 61 \$1,457,245 12 Suspicious 18.0 19.3 5.9 10.9 13.7 19.6 5.5 24.8 11.5 14.0 100.0 21.1 100.0 12.7 17.7 3 0/0 Fires 19 62 35 58 80 68 322 63 14 37 35 44 45 57 322 N -41 Incendiary 11.8 10.9 5.4 9.0 22.22 29.0 100.0 20.4 14.0 5.6 12.2 15.4 100.0 5 13.1 23.1 13.1 411,483 Fires 24 12 20 49 29 45 29 27 34 31 64 5 2 221 ~ N 221 51 5 12-Amusmt/Rec/Variable Use Fire Service Non-Fatality 11-Amusmt/Rec,Fixed Use 10-Public Asembly Unc. Fire Service Fatality Civilian Non-Fatality Civilian Fatality LOSSES & CASUALTIES: FIXED PROPERTY USE: Dollar Loss TOTAL: TOTAL: FOTAL: TIME OF DAY: 0001-0400 0401-0800 0801-1200 1201-1600 1601-2000 2001-2400 Wednesday DAY OF WEEK: Saturday Thursday Unknown **Fuesday** Sunday Monday Friday

FIXED PROPERTY USE (Cont.): 13-Churches/Funeral 14-Clubs 15-Lihraries/Mus/Court Rm	LTTES	0,	COTT	N	Fires	%	Loss	Civ FF	LIV FF	YOL LH
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21-Schools/Nonresidential	1 10	1.4	3	6.	9	1.1	80,200			3
24-Colleges/University			1	.3	1	.2	,			
31-Care of Aged	2	6.			2	.4	465			
33-Care/Handicapped/Sick										1
34-Care/Phys. Restrained	2	.9			2	.4	325	2		
36-Care/Mentally Hndicpd	1	.5			1	.2	300			
41-Dwellings/1-2 Family	52	23.5	54	16.8	106	19.5	498,300	9		45
42-Apts/Tenmts/Flats	8	3.6	S	1.6	13	2.4	38,261	1		S
44-Hot1/Mot1/Inns/Ldgs			4	1.2	4	.7	37,199			1
46-Dormitories	Ч	·.5	3	6.	4	.7	100			1
49-Other Residential Occ.	1	.5			1	.2				1
51-Food/Beverage Sales	2	6.			5	.4	500			1
54-Specialty Shops										2
55-Rec/Hob/Home Repair			2	.6	7	.4				2
56-Professnl Suppl/Sale			-1	.3		.2	4,500			
57-Motor Veh/Boat Sales	1	s.	4	1.2	Ŋ	6.	53,500			2
58-General Item Stores	1	s.	1	.3	2	.4	100			
59-Offices	3	1.4	7	.6	ഹ	6.	36,000	3		2
64-Utilities			2	.6	2	.4				2
65-Agriculture	2	6.	7	.6	4	.7	175			9
66-Forestry/Hunt/Fish	3	1.4			3	.6				1
75-Wood/Furntr/Papr/Prnt	3	1.4	2	.6	Ŋ	6.	40,390			Ŋ
76-Chem/Plastic/Petro										1
77-Metal/Metal Products			1	.3	1	.2	5,000			1
79-Other Manufacturing	1	<u>.</u>		.3	2	.4				01
80-Storage Unclassified			പ	1.6	S	6.	11,550			4
81-Agriculture Prod Strg	2	6.	80	2.5	10	1.8	54,980			8
82-Textile Storage			1	.3	1	.2	100			
83-Prcesd Food/Tbac Strg.										1
85-Wood/Papr Prod Strg	1	·2	3	6.	4	.7				1
86-Chem/Plastic Prod Stg										1
87-Metal/Product Strg	2	6.	1	.3	3	.6	400			
88-Vehicle Storage	1	.5	S	1.6	9	1.1	8,597			4

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#### SUMMARY :

Over all, our fire statistics are not too bad in Idaho. In fact, there has been an improvement in dollar loss over last year for structures. However, there is room for much improvement, especially in residential properties. It is apparent by these statistics that a good public education program must be started as soon as possible. This is the only means we have to combat the residential fire problem. In the 1985-86 fiscal year, I plan to ask the Legislature for one more position to start the public educational fire safety program. I believe this to be crucial for Idaho.

It is also quite evident that properties that are normally inspected for fire hazards have a much lower incident rate. We do have a program in place to train local fire officials to perform fire inspections.

Statewide, our record has improved from last year. I hope some of the programs that have been initiated from the state have had some effect on this. I, at least, would like to think so.

As a footnote, we have received a report that a large fire loss took place in Ketchum, Idaho in 1983. A large shopping center burned and a loss was reported to the National Fire Protection Association of \$2,500,000. Ketchum Fire Department was not reporting to my office at the time of this loss. Therefore, our actual known loss for 1983 is \$12,839,358.

A statewide fire loss could be computed for the areas that are not represented on our reporting system through a per capita loss figure. This would add another \$4,490,500 of estimated loss for those areas or a combined total of \$17,329,858.

Respectfully submitted,

Bill Wallis

Bill Wallis State Fire Marshal

BW:pr