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# NATIONAL COMMISSION ON FIRE PREVENTION AND CONTROL

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## HEARING

BEFORE THE

## COMMITTEE ON COMMERCE

## UNITED STATES SENATE

NINETY-SECOND CONGRESS

SECOND SESSION

ON

NATIONAL COMMISSION ON FIRE PREVENTION AND CONTROL

SEPTEMBER 21, 1972

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# NATIONAL COMMISSION ON FIRE PREVENTION AND CONTROL

THURSDAY, SEPTEMBER 21, 1972

U.S. SENATE,  
COMMITTEE ON COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m. in room 5110, New Senate Office Building, Hon. Warren G. Magnuson (chairman of the committee) presiding.

Present: Senators Magnuson, Pearson, and Stevens.

## OPENING STATEMENT BY THE CHAIRMAN

The CHAIRMAN. The committee will come to order.

The chairman has a very short opening statement to lay a little foundation subject to the recommendations of the commission.

Five years ago, in the Fire Research and Safety Act of 1967, the Congress established, out of this committee, a National Commission on Fire Prevention and Control. In so doing, we articulated the Nation's concern with our growing losses due to fire. We expressed a desire that the Nation's resources be amassed to attack the problem of updating our fire equipment, adequately training our firefighters, combating false alarms and harassments of fire companies, and revitalizing antiquated building fire codes in order to save the lives of people when fire does strike.

It is shocking to most of us, and to myself, that by the time you and I go to bed this evening, over 30 Americans will have died in fires this day alone. By the end of this year, fires in 1972 will have claimed over 12,000 lives and will leave 330,000 people crippled. Even more startling, in 1971, 210 firemen died while combating blazes.

People constantly talk about the crime problem, and rightly so, but no one talks much about the fire problem which is equally severe. Crime costs the Nation about \$11 billion a year. Fire losses come to about \$10 billion. Perhaps even more disturbing is the fact that the average death rate from fire in the United States is five times the rate in the other developed countries of the world.

What can be done about it? It is this very question that the National Commission on Fire Prevention and Control was mandated to answer. The Commission began its work in July 1971; its report is not due until June 1973. As a congressional advisory member to the Commission, I have been greatly impressed with the study that is being undertaken. Though still at a preliminary stage, I have asked Chairman Bland and the members of the Commission to discuss this

Staff member assigned to this hearing: Edward Cohen.

morning the nature of the recommendations that the Commission will be making upon the completion of its work. Due to the importance and magnitude of the problems, I do not think that it is too early for us to begin now to plan a comprehensive fire prevention and control program for the 93d Congress.

I have asked three additional individuals to testify this morning. First, former Fire Chief Gordon Vickery, from my home town of Seattle, who has had 26 years of experience in this field. I feel that Chief Vickery is uniquely qualified to evaluate the steps which can be undertaken on a national scale to mitigate our losses due to fire.

Second, I have asked Deputy Chief Joseph Galvin of the New York Fire Department to share with us some of the problems that he has encountered in his 20 years of service. His particular concern focuses on the adverse conditions facing today's professional firefighters.

Third, Mr. W. Howard McClelland, who is both Cochairman of the Commission and president of the International Association of Firefighters will also testify this morning. As president of the union representing approximately 146,000 of our Nation's 200,000 paid professional firefighters, I believe that Mr. McClelland will be able to adequately inform the committee of the steps which must be taken to equip and train our firefighters to do the most effective job possible.

In our Nation's 196 year history, there have been literally hundreds of national study commissions mandated to analyze and set forth recommendations on pressing issues. Most of the studies are read, publicized, and then filed in the Archives, never to be heard from again. One glaring exception to this general rule was the report of the National Commission on Product Safety. We are now in the final stages of adopting many of that Commission's recommendations. I pledge today that the final report of the National Commission on Fire Prevention and Control will also be scrutinized carefully by the Congress next year and that a comprehensive national legislative program to combat fire tragedy will be offered.

Now, the Senator from Delaware, who has been long interested in this matter, and has been a great help to us in getting this Commission established, has a short statement he wants to make at this time.

#### **STATEMENT OF HON. J. CALEB BOGGS, U.S. SENATOR FROM DELAWARE**

Senator Boggs. Thank you, Mr. Chairman.

I appreciate the kind invitation to join you today at this hearing on the preliminary recommendations of the National Commission on Fire Prevention and Control. I certainly listened very intently to the remarks you just made. I endorse them 100 percent.

I join with you in the urgency of this and I congratulate you and the committee on having this hearing and giving consideration at this time to the preliminary recommendations of the National Commission.

I think this is helpful to the Congress and helpful to the Commission in carrying on its work.

As an advisory member of the Commission, I, like the distinguished chairman of this committee, am very much interested in the work of the Commission. I have studied the preliminary recommendations, and I believe that they are of great importance in terms of preventing and controlling fires.

I congratulate Chairman Bland and the Commission on their fine work. I am glad that these hearings have been called. I believe it is important that attention be focused on the great loss of life and destruction of property which fire causes each year—more than most of us realize. And what this Commission is doing to prevent it. Its recommendations will be most helpful to the Congress and to the Nation.

Mr. Chairman, I won't take any more of your time, but I would ask permission to file a statement at this point in the record, if I might.

The Chairman. Thank you. Your statement will appear in the record.

(The statement follows:)

STATEMENT OF HON. J. CALEB BOGGS, U.S. SENATOR FROM DELAWARE

I appreciate this opportunity to comment briefly on the preliminary recommendations of the National Commission on Fire Prevention and Control. As an Advisory Member of the Commission I have been following its work with great interest.

First, I want to commend Chairman Bland and Vice Chairman McClellan as well as the entire Commission for their fine work so far. The preliminary recommendations are quite thorough and specific, covering every aspect of fire prevention and control including fire safety education, firemen training, flammable fabrics, fire safety standards in institutions receiving Federal assistance, fire research, and many others. The Commission obviously feels that the Federal Government can and should play a leading role in each of these areas.

I certainly agree that we must do all we can to eliminate the loss of many thousands of lives and billions of dollars in property each year due to fire. I am convinced that these losses can be substantially reduced and I believe the preliminary recommendations of the National Commission on Fire Prevention and Control provide a blueprint for doing so.

The Commission's preliminary recommendation for a National Fire Academy is one of great merit which I believe would fill a need for a point of national focus on fire prevention and control. I am pleased that it is a central element of the Commission's recommendations.

When I was privileged to testify before the Commission earlier this year, I stressed my hope that the Commission would not overlook the important role of volunteer firemen in our overall effort. As I pointed out at that time, and I want to reiterate it now, fire prevention services in this country simply cannot be upgraded significantly if our volunteer firemen are neglected. Of course, we owe a huge debt of gratitude to professional firemen, but there are 10 times as many volunteers and they must not be overlooked. I would hope that the absence of paid professional firefighters in a community will not prevent the local volunteer company from participating fully in the Federal programs of training and assistance contained in the preliminary recommendations.

In my own State of Delaware, with an outstanding record of keeping fire losses at a constant level of about \$4 million a year in recent years, there are 60 volunteer fire companies. Mr. Louis Amabili, who is the Director of the Delaware State Fire School and serves on this Commission with distinction, has estimated that volunteer fire companies in Delaware save the State about \$20 million a year in labor costs not to mention the lives and property these risk their own lives to save without compensation.

I am sure the Commission shares my own feeling of gratitude to volunteer firemen, and I am confident the Commission's final report will reflect their important role. I look forward to the final recommendations of the Commission next year. I hope to be serving in the Senate at that time and to work for legislation to implement them.

The CHAIRMAN. Ted, do you have anything to add?

Senator STEVENS. No; not at this time.

The CHAIRMAN. All right.

Mr. Bland, we would appreciate it if you would come forward.

If you have any other commissioners accompanying you, have them come forward, too.

Again, for the record, Professor Bland is the chairman of the National Commission on Fire Prevention and Control, a commission we established.

You might identify those who are with you.

**STATEMENT OF PROF. RICHARD E. BLAND, CHAIRMAN, NATIONAL COMMISSION ON FIRE PREVENTION AND CONTROL, WASHINGTON, D.C.; ACCOMPANIED BY HOWARD D. TIPTON, EXECUTIVE DIRECTOR; JOHN L. HURLEY, FIRE COMMISSIONER, ROCHESTER, N.Y.; AND ROBERT A. HECHTMAN, R. A. HECHTMAN & ASSOCIATES, RESTON, VA.**

Mr. BLAND. Thank you, Mr. Chairman.

I have on my left the very able Executive Director of the National Commission, Mr. Howard Tipton. Without his diligence we would not be as far as we are.

Further to my left are two of our commissioners, the fire commissioner of the city of Rochester and also a member of the Commission, Chief Jack Hurley.

Dr. Bob Hechtman, an expert in structural mechanics, is also with us as one of our commissioners.

I think it is appropriate that these men appear because I don't know how the Congress and you people go about putting together national commissions, but somehow, by I think a stroke of genius, you have gathered together 18 of the most dedicated individuals I think I have ever seen.

I am a bit naive on commissions. I suppose I am somewhat the little man as Chairman of the Commission, but little men as chairmen of commissions find big men and women who join them, and whoever appointed or recommended these people did it just right.

I can assure you, sir, we will deliver a report in July 1973 as the law requires. That is the thing we are dedicated to doing.

We basically operate as a matter of interest and in inervative type process. We set a position and then tear down the sand castles and put it back together.

It has been a traumatic experience for all of us, but what motivates us is that something can be done about the loss of life and property from destructive fire. It is within our technology to do it. It is kind of a problem of putting it all together and that I believe is our total mission.

I had an experience within the last week of sitting with some industrialists and lawyers from the State of Pennsylvania and presented to them the two charts that you see here to my right. The sum total of that presentation was a statement by one of the men that no one had ever placed the fire problem in the public safety content before, that he was ignorant of where the fire problem rested in the total priorities.

That is the value, I think, of the public safety problems.

It is interesting that we cannot separate loss and cost. I am sorry we have to confuse you that way at this time. But inherent in our business is a lack of a data base.

I have been in the engineering profession for too many years now. I am not one to, I suppose, just gather data like artifacts in the attic,

but we must have a data base that is real, so we know what the problems are.

This business of too many computer cards and so forth, it is imperative we have a data base, but it is imperative that data be useful data to give the kind of guidance that is necessary in the total fire program.

Now the Commission is finding—it feels quite strongly—that our priorities are wrong in the country. We tend in my view, and I think the Commission's view, to emphasize the red firetruck and the suppression forces and really a response to an alarm is a remedial action. It is an admission of an error, that something has happened that we did not intend to happen.

So we believe the priority must go to prevention.

We talk about the technology, but it is my feeling that we have here a problem that is an 80-percent people problem and 20-percent technological problem. That is what makes the problem tough because it is primarily a people problem.

We talk about research. We talk about effort. I think a large part of that will have to go into the soft sciences.

Why are people so careless? Why do they not have respect for, I think, human life and resources which have made our country great?

I have submitted, for the record, written testimony. I intend to no further develop that. You certainly can use your time in reading it. Perhaps you have questions that you would like to direct to me or to the other commissioners or to Mr. Tipton.

The CHAIRMAN. Mr. Bland, the Senator from Delaware I think made a great contribution in his prepared testimony by directing concern to the problems encountered by smaller departments, including those staffed by volunteers. These departments obviously don't have the wherewithal or the technical knowhow of larger departments, such as Mr. Vickery would have in the Seattle Fire Department. Can you briefly tell us what progress we are making, if any, or what should be done to bring the smaller volunteer fire departments up to a level that will enable them to do a better job?

Mr. BLAND. Well, basically the problem that I see—

The CHAIRMAN. I know about the money problem. I understand that. But what else can we do?

Mr. BLAND. I think we have to give them a little attention.

The CHAIRMAN. A little attention. All right.

Mr. BLAND. Yes, sir.

I am a volunteer. In fact, those are my boots and I am proud they are my boots. I am proud to be associated with the 1,500,000 firefighters in this country. And many of us—I think all of us respond to a little bit of encouragement. And this hearing is encouragement to the fire service in this country. You are doing a great service in that sense.

I think we have to pay a little attention to the boys. And you will get another round from them in that manner. I think we have to find ways to train them and educate them that are very time effective because, as Senator Boggs knows, a volunteer has many other things he is presumably doing.

I feel if we can use the new techniques for training—computer assisted techniques—quick learning processes, these should be applied to utilize his time most effectively.

I sometimes wonder why we spend so much time in the training session with the volunteers, teaching them to tie knots, because my experience in the volunteer service is that all I want to do is get the ax up there and I don't care whether I tie a bow in it or not.

But there are techniques that are effective in suppression that protect his life that sometimes we miss. We spend maybe too much time teaching them to tie a knot. I think we have to evaluate the whole education process of the firefighter.

The CHAIRMAN. It is a combination of new technology equipment and training of people to use this new equipment. Of course, fire departments do not just put out fires anymore. You know that don't you?

Mr. BLAND. I hope maybe we have a changing trend there.

Senator BOGGS. They are almost a community service organization in many communities, small communities.

The CHAIRMAN. Well, the finest example in the United States—and I say this not because Gordon is here—is what is done in the emergency ambulance service. Many lives have been saved.

Mr. BLAND. I think your point is extremely well taken in the sense that so many small communities—and certainly Senator Boggs appreciates this in his State—the fire department is the social center of the town. It is the hub.

Senator BOGGS. That is right.

As the chairman says, every fire department in Delaware has one at least, maybe two ambulances. The whole community depends on them for automobile accidents, no matter what may happen.

Let me just say another word.

The CHAIRMAN. Go right ahead.

Senator BOGGS. Along the line of fire prevention I can't help but point out—and this is coincidental to this hearing today, Professor Bland—in Delaware they are having a statewide fire prevention dinner tonight and the volunteer firemen, the fire marshal's office is sponsoring it, but a cross section of the citizenry are coming to it tonight. It is at Big Dover Downs, so they can get 300 or 400 people in there.

That is part of the educational program, Mr. Chairman, to communicate with men and women and children, all of these points about fire prevention, to just try to keep the charts from looking too bad.

I am very proud of what they are doing in Delaware.

Mr. BLAND. I think there are some very, very exciting things happening in the American fire scene. I am sure that Chief Hurley and some of the people share this with me.

We are glad to be a part of it. We are happy and eager to be a part of it. And it is happening. It is very gratifying.

The CHAIRMAN. We politicians get involved also, because at campaign time, we head for the firemen's ball or whatever is going on. We are right there. It helps us. You have a gathering point for us.

Go ahead. I didn't mean to interrupt.

Senator STEVENS, do you have a question?

Senator STEVENS. You mentioned a million and a half firefighters. Are you referring to volunteers?

Mr. BLAND. We estimate in this country about 200,000 paid firemen and Mr. McClellan and I—me being a volunteer and he being the professional—have some disagreement on how many volunteers there are. But it has been estimated between a million and a million and a half volunteer firemen. It is a sizable part of the firefighters.

Senator STEVENS. What benefits, if any, do the volunteer firemen have today? Are there any incentives at all toward continued participation in this type of volunteer activity?

Mr. BLAND I am afraid that what is happening in our country, unfortunately, is maybe not an incentive. There are many things that compete for interest and probably one of the things that the volunteer section is suffering from is its ability to attract men and to get their involvement in what is a very worthwhile community activity.

The incentives are not great, but there is something about the fire-fighting business, Senator, that I think, people say gets into your blood.

Why many of my fellow people in the fire service stick with it I will never know, but you get dedicated to it, you can't hang it up. And it is probably going to be a problem of finding out what that motivation is. Once we can find out what it is maybe we can tap it and get a better involvement as a result of that.

But there are things happening in the American scene that are bleeding manpower away from the volunteers.

Senator STEVENS. I hope your report is going to include a discussion of that aspect of firefighting and the total problems of recruitment and what we might do to assist, to provide some incentives.

Mr. BLAND. The manpower problem is a very real problem. Commissioner Hurley?

Mr. HURLEY. Mr. Chairman, I would like to answer Senator Stevens a little bit, as a professional paid man, my opinion of what the incentives are for volunteers is: Strictly it is a service to his fellow man. There is no real incentive other than the satisfaction that he does help the people in his community. If you look at the volunteer fire service, it is the only real cost effective safety program in the whole country. Everybody else pays for safety. The volunteers give it.

The CHAIRMAN. One broad question—I am afraid we are going to have a vote in a few minutes. I think you all have been stressing, and you probably will in your report, that maybe our priorities are a little out of kilter. We know how to put out fires, at least we think we do, and we do put them out, but there should be more emphasis on the prevention end. Is that correct?

Mr. BLAND. That is my feeling, Senator. I know your compassion and concern with the problems of burns and children. And that is a thing which will only yield to prevention. There is nothing a suppression force can do to avoid a child dropping a match on itself. The suppression forces can only respond to the alarm.

Now I feel that we can make the suppression forces the real professionals in un-fire, and when they become the real professionals in un-fire, the communities will welcome their inspection of properties, their professional advice on how to avoid fire. And that will probably do the most to bring down the number of alarms, and to decrease the human misery that is attendant to the burning problem. It is very real.

The CHAIRMAN. The House yesterday passed our bill on product safety, in which you were involved directly in many ways. And we hope to be able to pass that this session and set up the independent commission.

The product safety bill will deal with prevention measures in many household appliances and things of that kind. I just asked for a box of matches here, and for years I have been trying to get the match people to put the striker on the back. I don't know how many thousands of people each year get burned from matchbooks. When a matchbook blows up on them, they throw it. For some reason people usually throw things toward windows. It is just an automatic reaction. And if you have some drapes there that are flammable, up they go. It doesn't cost any more to put the striker on the back, and then you have to close it to strike it.

You may know that the Ohio Match Co. in the future is not going to put the striker on this side. They are one of the biggest matchbook companies, and I suppose the rest will follow suit.

These are little things for prevention.

Mr. BLAND. One of the things that strikes me as most interesting is that it is all, Senator, coming together, the product safety problems, the flammable fabrics are being brought together.

The CHAIRMAN. Yes; all of those things will help you people with prevention.

One other thing I want to suggest here, I don't want you to get too optimistic about this, but on Monday we passed some so-called crime bills in the Senate, and the House has passed some of them. In those bills was some compensation for policemen killed in the line of duty, while somebody is committing a crime.

Now it seems to me where you have arson and a fireman is killed or hurt, that is in the process of somebody committing a crime. We probably ought to take a look at that when this bill gets started, because firemen are public servants, too, like anyone else.

I understand that about half of the fires in this country are caused by arson; I don't know.

Mr. BLAND. We don't know either. Arson is an extremely difficult act to prove. Extremely difficult. You destroy the evidence in the process of the burning.

The CHAIRMAN. All the different areas we have been talking about must be put together to achieve the goal that you people are going to recommend. They are all going to be complementing one another, as we move along.

Mr. BLAND. I will admit, sir, that one of the visual images that we talked about bringing here today was in effect a puzzle, because that is what we have. How do you lock all of these things together to make an effective approach?

The CHAIRMAN. I suppose the Federal Government should require more fire safety education in schools, and other educational institutions, and I think we should also try and achieve a significant increase in fire research activity which will include within its scope the places that just don't have the wherewithal to keep up. That is going to be a problem.

Mr. BLAND. You have put your finger on an interesting aspect of it, Senator. We have found, or other people have found areas in this

country which have absolutely no fire protection available to them. No fire protection available.

The CHAIRMAN. I hope you will also direct your attention, to a series of tragedies happening in the United States. About once a week you pick up a newspaper and another nursing home has caught fire, typically with 15 or 20 injured and two or three deaths. I don't know if the Federal Government can do as much about that as they should. We hope they could. But isn't that pretty much in your opinion a question of not enforcing local codes?

Mr. BLAND. Yes, sir. I think we have to start one step back, though, from that, Senator. We have to ask first whether our codes are adequate. Then we have to determine whether there is proper enforcement. And that ends up in a bit of cost effectiveness argument. I can assure you that as Chairman of this Commission, I am deeply concerned about the nursing home situation. I have a mother in a nursing home at the present time, and I have answered two alarms in that building myself. That is a very meaningful thing to me. I feel that there is an area where society, and maybe the Federal Government, has an obligation to protect those people as best we can.

The CHAIRMAN. We sure have the concern, but a lot of the problems you are talking about have to do with local codes. There has to be strict enforcement of the local codes, and if they don't have them, insist they do have them.

Some areas have good ones, but they are not enforced like they should be. Others don't have good codes to begin with. But I think that if we start to have some Federal money involved in a national approach to this matter that local codes and their enforcement can be strengthened. I would hope you would suggest to us some conditions that be placed on the receipt of Federal funds to assure the improvement of local codes.

Mr. BLAND. I believe that that before—I say this as a taxpayer—before I am willing, as a taxpayer, to have the Federal or State Government move into an area such as fire, I want us to have developed a threshold of protection. By this I mean a level which we feel that it is the Government's responsibilities to at least encourage a community to have this level of protection.

If, beyond that, they want gold bells on their firetrucks, they can put them there themselves.

It is important, therefore, that we develop this threshold level. I think this is true also in the institutional case, that we must provide—maybe it is regulatory, maybe it is an incentive—which says you will not operate this nursing home unless these minimum requirements are met. They can be very realistic and very cost effective.

I am not worried about running the nursing homes out of business from a cost standpoint.

Commission Hechtman, you had a comment, I believe?

Mr. HECHTMAN. Yes. I would like to talk to the committee a little bit about our capacity to improve our degree of fire protection in our structures, our buildings, and other installations. There are two universities in the country that offer 4-year programs in the field of fire protection. This leads to a bachelor's degree. There are, of course, a number of 2-year programs in the country, which contribute to the fire service by giving them background material which they need in the

field of fire suppression. But so far as designing for fire protection, two 4-year programs exist in fire protection, one at Illinois Institute of Technology, another at the University of Maryland.

These universities, according to my understanding, have no formal graduate program, it is simply a very limited graduate program with one or two or a small number of students.

The University of California at Berkeley is now offering a few graduate courses, this started last year, in the field of design for fire safety.

The University of Washington offers a rather extensive graduate program in the field of forestry, in the fire sciences.

So as far as the architects and engineers who design buildings, for example, it is seldom that there is any education whatsoever in the field of design for fire safety. Architects, I understand, have a few hours of discussion of the subject.

I have been a college professor for 25 years, and we never discussed fire safety in our courses. In other words, the structural, mechanical, and electrical engineers who design buildings are not given this sort of education. And yet when they go out to practice, they are called upon to apply their background information.

I offer this to indicate the technological base we have on which to build something. We expanded into the space program. We have quite a contingent of aeronautical engineers and other interested engineers in this field, to develop this program. We have a very small contingent in the fire field.

So far as the methods of design for fire safety, these are largely, insofar as buildings are concerned, about where we were 100 years ago when the engineer looked for strong timbers, looked back upon his experience as to how large the timbers should be, and put it together much in this fashion. It was designed by art rather than being designed by engineering science.

The developments of the engineering scientific methods we need in fire safety are far behind those in the electrical engineering, mechanical engineering, or structural engineering, for example. I think this is where a large effort is needed, in the educational area. Because with a good educational base upon which you build—as you know, it is easy to develop a technological background we need for better performance.

The CHAIRMAN. Thank you, gentlemen. I had a series of questions planned which I will give to you and you can answer them for the record. We have covered most of it generally.

Again I regret that we have to hurry this thing up today.

One thing. I note that you have given some consideration and you are thinking about the problem of moving toward more regional fire protection. Frequently there is great cooperation between fire units, if they are beyond the city limits, with the city. Isn't that right? But in some places you are running into the same problem that the transportation people are running into, you have this conflict between local governments. This sort of conflict and confusion when you are trying to do something about fire, is worse than no cooperation at all.

All right, we thank you very much. We will be looking forward to your report and any help we can give you as you move along, we will be glad to do so.

Mr. BLAND. We will certainly need all of the help and encouragement we can get. But you will get your report, and I assure you, sir, it will be a quality one.

The CHAIRMAN. Yes. And we will try to get you a little more money. (The statement follows:)

STATEMENT OF RICHARD E. BLAND, CHAIRMAN OF THE NATIONAL COMMISSION ON FIRE PREVENTION AND CONTROL

On behalf of the National Commission on Fire Prevention and Control I wish to thank you, Senator Magnuson, for this opportunity to discuss the progress of our Commission with the Senate Commerce Committee. Since the appointment of this Commission by President Nixon, we have labored diligently and are dedicated to finding more effective ways to reduce our nation's terrible loss from destructive fire. We have held hearings in four regional cities focusing on life safety, fire protection in buildings, the fire services, the burn epidemic, fire research, forest and wildlands fires and fire prevention. We have received over one hundred position papers from experts in private and public agencies analyzing various aspects of the fire problem and have conducted a survey of fire departments (10,000) to determine critical issues. Our analysis has led us to a single conclusion: we have within our nation the capabilities to bring about a significant reduction in life and property loss.

Consider, for a moment, the current magnitude of the fire waste of our nation's resources: more than 12,000 Americans were killed in fires in 1971; 330,000 were crippled, injured and burned; direct property loss totaled \$2.6 billion. Adding treatment costs for burn injuries at \$1 billion, support for fire departments at \$2.5 billion and \$3.3 billion in lost productivity, destructive fire wastes \$9.4 billion annually.

Then, too, Americans pay approximately \$6 billion in fire insurance premiums each year, of which a significant portion is not productive money but simply used to replace fire losses.

In an America that has grown conscious of its ecological responsibilities while remaining cognizant of its international economic position, we find another consideration is pertinent: that fire destroys, or alters beyond usefulness, natural and humanly transformed materials that we need to manage carefully. Whether it is trees in the forest, a warehouse full of paper made from trees, or coal in a mine, fire wastes America's resources. Destructive fire is an irreversible process!

Unfortunately, the richest and most technological advanced nation in the world leads all the industrialized countries in per capita deaths and property loss from fire. While differing reporting procedures make international comparisons somewhat unreliable, the fact that the United States reports a deaths-per-million-population rate nearly twice (59.5 versus 30.0) that of the next ranking nation, Canada, leaves little doubt that this nation leads the other industrialized nations in fire deaths per capita. Similarly, in the category of economic loss per capita, the United States exceeds Canada by one-third.

We estimate that the total net U.S. fire cost amounts to over \$13 billion annually; that is \$60 for every man, woman and child in the country. As a comparison, losses from unsafe consumer products have been estimated to be \$5.5 billion annually, and these losses have been far more effectively publicized.

The Commission is left to conclude that our nation's fire priorities are wrong. Our resources have been directed at stopping the fire after it starts rather than preventing it. Prevention is the most cost-effective solution.

There are reasons why our nation has not acted to prevent fires. Some are traditional, others economic or technological. The typical image of what a fire department should be—an image which firemen share—is a heroic-proportioned battalion of fire fighters and people-rescuers, not a professional corps of fire preventers. Further, there is little incentive today to change that approach.

As in the past, the insurance industry is an important element in the fire protection system. *The Standard Schedule for Grading Cities and Towns of the United States with Reference to their Fire Defenses and Physical Condition* is a method used by the insurance industry for establishing fire insurance rates. The premiums charged for fire insurance are set in part by the public protection provided. That level is attained through taxation or solicitation. Fire departments are heavily influenced by the Grading Schedule in determining priorities and in

expression of their needs. Since the Grading Schedule gives minimum credit (approximately seven percent) for fire prevention activities, over 95 percent of all fire department budgets are spent on suppression rather than prevention. In most states, insurance rates on dwellings are not affected by an improvement in the classification of a city when the city is in class 4 or better. Homeowners, who suffer 80% of all fires in this country and are the major consumers of insurance, obtain no reduction in insurance premiums and little additional fire protection for tax dollars spent to improve a city's grading beyond class 4. Most of their tax dollar goes for reduced premiums for the mercantile, manufacturing and public buildings.

As Charles Morgan, President of the National Fire Protection Association has observed, "It is not for lack of knowledge that we are suffering grievous losses from fire, but because of our failure to apply what we already know, much of which has been known for years."

Sprinkler systems have an excellent record of property safety and should be required in all high rise structures, institutional occupancies and buildings of specific volume/utilization relationships. Early detection and alarm systems should eventually be required in all residential units. We estimate that as many as 2,600 lives could be saved annually by this requirement.

Still, there is much that is not known about fire and its destructiveness. Over and over again, the Commission found that our studies of the fire problem were hampered by the very poor data base. Testimony and data received to date indicate that a national and local uniform data system is an essential first step in allocating resources for any cost-effective solution. Such a system should build upon existing data collection efforts such as those of the National Fire Protection Association, the American Insurance Association, various states and foreign governments.

Research and development must be expanded to achieve a fundamental understanding of fire and how it is propagated. This then leads to safe building construction and furnishing materials and improved fire extinguishing equipment. Faced with what is perhaps an 80 percent people and 20 percent technological problem, research is needed to examine the economic and social problems attendant to destructive fire. Perhaps the most important research needed is in the area of human behavior.

In that area, a subject of special concern is the arsonist. Fire chiefs in many cities believe that more than half their fire losses are due to arson. In reality, we pursue an economic system that provides incentives for prearranged fires in the form of insurance payments, income tax write-offs and low cost land clearance.

Indifference also helps to account for the extraordinary magnitude of the fire problem in the United States. For example, it is not uncommon for fire chiefs to be unaware of the technological state of the art in their field (communication, technological transfer). Nor is it uncommon for fire chiefs, especially those of the volunteer fire departments, to be unconcerned about preventing fires because they see their job as only putting them out.

Architects (with a few notable exceptions) are largely indifferent to providing a satisfactory level of protection for life safety in buildings (ignorance, economics). Most architects find it easier and acceptable to clients to design to the minimal life safety standards of the building codes. Existing codes need concentrated review for applicable engineering principles and to assure allowance for cost trade-offs that recognize a safe total building design. In turn, building owners and occupants see fire either as something which will never happen to them or as a risk which they can tolerate because fire prevention measures are costly. Physiological researchers and product engineers are largely unaware of the toxicological affects of products when consumed in a fire.

The first equipment industry has, for the most part, shown more interest in maintaining its captive market than in developing new products, enhancing safety or improving production methods to cut costs. For example, fire truck costs range from \$40,000 to \$100,000 and the delivery period may be a year or more.

Then, too, the federal government has been largely indifferent to the fire problem (with the notable exceptions of the U.S. Forest Service research and data programs, the Fire Research and Safety Act and the Flammable Fabrics Program).

Lastly, the American people in general are ignorant of, and hence indifferent to, the fire problem. The problem has not been portrayed with the same urgency

as, for example, the far less lethal problems of air pollution and poliomyelitis. Polio, which in the peak year of 1952 killed little more than a third as many people as died by fire in that year, has been virtually eradicated because of the public attention it received. Moved by the sight of crippled children, Americans dug into their pockets to support research and control programs to attack the polio problem. No such concern has come forth regarding the fire problem.

Indifferent to fire as a national problem, Americans are similarly careless about fire as a personal threat. There is an old saying in the fire protection field to the effect that fires have three causes: men, women and children. It takes the careless or unwise action of a human being, in most cases, to begin a destructive fire. In their home environments, Americans live their daily lives amid flammable materials close to potential sources of ignition. Few private homes have fire extinguishers, much less fire detection systems. Too few multiple-family dwellings and institutions have adequate equipment for extinguishing fires. And often when fire strikes, ignorance of what to do leads to panic behavior and aggravation of the hazards, rather than successful escape.

The gravity of the fire problem expressed in Public Law 90-259 arises partly because of this national indifference, and partly because rapid changes in American society have created a complex of varied and confusing problems. We suffer what anthropologists call "cultural lag;" our methods of handling the fire problem are attuned to the America of yesteryear, not to either contemporary or future needs.

A number of important changes in American Society during the past several decades bear directly on the fire problem. Increasing urbanization has created social problems—the migration of the poor into cities, the development of ghetto areas, the rising expectations of minorities without the comparable ability to realize these expectations—that have had an effect on the fire problem. The poor are shunted to the most run-down neighborhoods, where century-old buildings are vertical tinder boxes. Few of the crowded apartment houses and tenement buildings have sprinkler systems or other protective equipment, because landlords see no profit in decent, long-term upkeep of their properties. Tenants must often warm their rooms with dangerous portable or makeshift heaters because central heating is inoperable or non-existent. In the past ten years, flaring discontent in the ghettos has added burdens to fire departments in the form of riots and fires, arson, harassment of fire fighters and false alarms. Antiquated laws and time consuming protective procedures delay removal of abandoned buildings—fires waiting to start. The movement for minority rights has forced upon us the realization that fire departments are, in general, still career sanctuaries for white Americans. Black and brown Americans are under-represented in the fire departments in nearly every community in which they live.

Urbanization has also created more of a demand for intensive use of land; as a result, there are bigger buildings which create more complex safety problems from fire. More people are concentrated in buildings and exposed to the threat of fire or its toxic gases and smoke. People can be dead within minutes after relatively low levels of toxicity are reached. High rise buildings, though hallmarks of urban progress, present problems for which there are no solutions within the capability of many contemporary fire fighting units. Upper floors are difficult to reach and heat and smoke are slow to vent in modern air-conditioned buildings.

Because we believe the fire problem is significant enough to warrant attention at the highest level of federal government, the Commission is presently considering that a high federal office be established to provide a national fire focus.

The need for this focus is manifold. We believe that a strong attack on the fire waste of this nation is not only warranted—it is necessary. We believe that the most effective fire attack can no longer be mounted solely by the local community because of the technology, complexity and cost. We believe that the individual should have the reasonable assurance of fire safety in his occupation, recreation and residence. We believe that a nation dedicated to the value of human life cannot set aside its responsibility for preventing suffering from burning—the most traumatic human injury. We see this federal focus:

- a. providing a public forum for discussion of fire problems and solutions,
- b. coordinating federal programs relating to fire prevention, research and control,
- c. publishing an annual plant to provide the public, Congress and the Executive Branch with a coordinated, overall program for reducing life and property losses from fire, and

d. serving as a center to refer requests for information to the appropriate agency, department or private organization.

The federal focus would include a National Fire Academy. The National Fire Academy would have a number of educational functions, among them:

a. providing advanced training and education to the nation's fire services in such fields as arson investigation, management, fire prevention and fire safety,

b. assisting federal, state, regional and local fire services in training and education by providing course materials, financial support, demonstration projects and special instructors,

c. helping local communities in fire prevention through public education programs, and

d. promoting or providing fire education for fire protection engineers, architects and code officials.

This federal focus would complement existing programs of research and action in Federal agencies and private sector. It would focus attention to their missions, coordinate their efforts and promote interest in areas of research or action that have been neglected.

Many of our recommendations will call for augmented programs and new efforts by state and local governments. We recognize that many of these governments are unable to undertake new expenditures in fire protection without federal help. Thus, we also envision there being a grant-making agency in the field of fire protection, functioning as a responsibility of the federal focus.

Recognizing that the fire problem is increasingly concentrated in urban areas, the Commission will recommend that every sizeable community develop a comprehensive master plan for fire protection. Each such effort would be eligible to receive federal assistance as an incentive for local participation. The master fire protection plan begins with defining goals and methods for evaluating the fire protection needs of the community and then develops the fire department and other municipal resources to produce the maximum cost-benefits.

Planning for fire protection is a local government function and city administrators are facing an increasingly difficult responsibility to provide for proper service. The increasing difficulty is symptomatic of many services in the contemporary urban milieu. In the case of the fire service, there has been a continued decline in the spirit of fraternity and public service that, traditionally, has been a major strength of the fire department. Public adulation and sympathy for the plight of the fire fighter has been waning, technological problems are increasing, costs are rising and demands on the fire service are increasing in large account because of other social problems of the city.

The seemingly constant increase in the cost of operating fire departments combined with the increasing demand on tax funds for new and additional services is forcing many policy-making officials to seek new means of providing fire protection. To the extent that fire protection planning exists, it usually is limited to such matters as working toward light-weight quick couplings for hoses or toward a computer which will calculate the pressure needed at the fire pumper or in more and better training. As important as these concerns may be, it appears that the role of the municipality to provide adequate fire protection must be completely reassessed, and the function of the fire service in light of the conditions which exist in our cities today must be redefined.

The search for alternatives to the conventional fire service as a method of providing this protection includes a consideration of these four significant modifications to the conventional fire service: (a) regionalization or consolidation of the fire protection efforts of several separate jurisdictions, to pool efforts toward a single "better" system to service the entire region, (b) sharing of the responsibility with property owners by the establishment of codes and regulations requiring them to provide built-in fire control equipment in their buildings, (c) private or contract service, whereby the community establishes a contract with a private group to provide fire services to the community, and (d) reduced protection, usually forced by the inability of the community to fund the fire department at a level of manning which existed in previous years. We see the need for increasing use by cities of professional guidance from private management firms which analyze the fire function using "systems techniques" and "management sciences." The stakes are too big, too complex and too important to rely on traditional methods.

For the municipal environment—the people and the property—the basic fire needs can be forwarded as a list of objectives. There is a unanimous agreement among the public, city officials, fire department personnel and insurance people that these objectives, in order of priority, are:

- a. to prevent fires from starting,
- b. to minimize loss of life and property when fire occurs,
- c. to extinguish the fire with the minimum damage resulting from suppression effort, and
- d. provide the necessities to regroup and rebuild and return to productivity with the minimum of delay.

Our Commission is preparing a final report with enthusiasm because we know our national fire losses can be reduced. This must be done at the local level but will only be accomplished if coordinated and augmented by the federal government.

(The following information was subsequently received for the record:)

NATIONAL COMMISSION ON  
FIRE PREVENTION AND CONTROL,  
Washington, D.C., October 10, 1972.

WARREN G. MAGNUSON,  
Chairman, Committee on Commerce,  
Washington, D.C.

DEAR SENATOR MAGNUSON: It was a great pleasure to appear before the Senate Commerce Committee on September 21 regarding the progress of our Commission.

I have enclosed responses for the record of that hearing to additional questions forwarded by your letter of September 22. I am most encouraged by your continued interest, and that of Senator Boggs and Stevens in fire loss reduction.

Thank you for the opportunity to testify and for this opportunity to further elaborate on our work.

Sincerely,

RICHARD E. BLAND, *Chairman.*

Enclosure.

*Question: In your prepared text, you defined the magnitude of the fire problem as follows: 12,000 dead, 330,000 disabled and \$10 billion in economic loss each year. You also stated that "We have within our nation's capabilities the resources for a significant reduction in life and property loss." If the nation adopts a comprehensive fire prevention and control program similar to that which you will be recommending, to what extent can these losses be reduced?*

*Answer: The Commission feels that a significant reduction in losses can be achieved if the nation adopts a comprehensive fire program, however, we are not ready to discuss numbers yet. It is probable that our final report will project achievable national loss reduction goals if certain measures, such as, greater education of the public, improved building materials and extensive use of detection and extinguishing systems are taken. A reasonable goal might be a 3 to 5 percent annual reduction in losses, deaths and injuries until a stable cost-effective level is attained. A total reduction of at least 50 percent should be established as a goal. It does not seem unreasonable to expect a one to 10 or one to 20 cost benefit ratio; that is, to realize a 10 to 20 dollar reduction in costs for every dollar invested. This level of effectiveness appears to have been achieved only in relatively limited efforts to date.*

*Question: You state in your testimony that the nation's fire priorities are wrong and that we should be pursuing a preventive, rather than remedial approach to fire. Could you elaborate on what steps can be taken to prevent fire?*

*Answer: The greatest dollar expenditures among the total costs of fire today are devoted to remedial measures—fire suppression (including fire departments, industrial and commercial extinguishing systems, and many building construction features) and insurance. We believe that the highest cost-benefit lies today in prevention even though this seems to be the all too obvious ideal in fire protection. Important areas on which to concentrate are public education, improved fire resistive materials and fire safe design of products. We hope that the latter will be hit hard by the Bureau of Product Safety or the new Product Safety Commission. Through improvement in fire prevention, we believe that significant savings should also be realized in the remedial expenditures.*

*Question: You recommend that early detection and alarm systems should be required in all residential units. Can this be done on a cost effective basis?*

Answer: Yes, we think so. It is apparent that early detection and alarm in all residences will drastically cut the loss of life from fire since about 80 percent of all fire deaths in buildings occur in residences.

Estimates have been made both here and in Canada that a residential detection "system" would have to cost \$10 or less to be costeffective for all residences. We are not sure the cost needs to be quite so low. Our present technology does not permit that yet, however, several government agencies are working toward development of reliable, low cost detectors including HUD, NBS and NASA. These efforts are not well coordinated and are underfunded for rapid achievement. Industry too is working on the problem, but on a rather low key since they apparently have had little incentive even though the market potential is enormous. Our tentative conclusion is that detection systems, probably consisting of one or two strategically placed detectors having a local alarm only, should be installed in all new residential construction. While the market incentive is increasing, the means of improving reliability and maintainability, acceptability to the public, trade-off of other building features and reducing cost should be vigorously pursued.

Some positive steps have been taken. The International Conference of Building Officials has recently approved a change to their "Uniform Building Code" which requires a single station fire detector in all dwelling units covered by the code. We understand also that HEW is now requiring a single station detector in approximately 20,000 mobile homes being delivered to house victims of hurricane Agnes in Pennsylvania.

*Question: You also recommend that all high rise structures be equipped with sprinkler systems. Don't local codes now require that?*

Answer: No, local codes do not require sprinklers throughout high rise buildings. They are required in some high hazard areas by some codes, but this represents only a small portion of the total area of such buildings and is not nearly enough with regard to life safety of the occupants. Some local code officials have been receptive to sprinklers in high rise buildings and several have been built or are under construction. In this case, the sprinklers were cost effective due to reductions permitted from usual building fire resistance or space limitation requirements.

*Question: I was concerned with your estimate that more than half of the fire losses in many cities are due to arson and that we pursue an economic system which provides incentives such as insurance payments, income tax write-offs and low cost land clearance for prearranged fires. What can be done to remove these incentives?*

Answer: Officials of some of our larger cities have in fact reported their beliefs that over half of their losses are due to arson. Please understand that this does not necessarily apply to all cities but we do feel that arson is more important than we may have realized in the past. We have in fact had witnesses testify that arson is rising at an alarming rate, not only in the United States but all over the world. Our system does seem to make arson attractive. Measures that would serve to make arson less attractive are:

*First*—improved arson investigations and detection seems possible. This will require some research and training of investigators.

*Second*—insurance carriers in cities might learn a lesson from their rural brothers. Some farm policies include a Rebuilding Endorsement or Deferred Loss Payment Endorsement at the discretion of the company. This endorsement requires that for any loss in excess of 40 percent of the amount of insurance, that an initial payment not exceeding 40 percent shall be made by the company to the insured. In order for further payment on the loss to be made, the building must be repaired or replaced within 300 feet of its original location within 12 months and at a cost equal to or exceeding the amount of the loss. This might be particularly effective in blighted areas.

*Finally*—local officials should require more timely removal of obsolete or condemned buildings by approved methods.

*Question: In your statement, you contended that "The fire equipment industry has, for the most part, shown more interest in maintaining its captive market than in developing new products, enhancing safety and improving product methods to cut costs." What do you mean by this?*

Answer: Very little if any innovation has come from the suppliers of equipment to the fire services. That this is so is not an indictment of the industry, but rather a statement of the situation resulting from conditions in this market. In a study conducted in 1972 by Pugh-Roberts Associates, Inc., for the National Bureau of Standards, the following eleven barriers to innovation are discussed in detail:

- a. Nature of fire fighters' job (morale and training costs).
- b. Fire Department personnel policies (traditionalism).
- c. Limited availability of funds for purchasing equipment.
- d. Lack of objective equipment evaluation reports to assist fire officials.
- e. Market fragmentation and lack of standards for equipment.
- f. Limited financing ability of most firms and high cost of product development activities.
- g. Greater attractiveness of other markets.
- h. Lack of dissemination of existing and new technology.
- i. Quasi-legal status of NFPA specifications.
- j. Use of antiquated rating schedule by Insurance Services Office to help set fire insurance rates.
- k. Relations between fire department officials and distributors.

*Question: One of the functions for the proposed Federal Fire Commission would be as a grantmaking agency in the field of fire protection. What areas of fire research are in need of funding and how large of an annual expenditure is required?*

Answer: Grants are likely to be needed throughout the broad field of fire protection to give that initial "boost" necessary to the introduction of change or innovation. Research shares this need. Extensive research and development is desperately needed in the following areas:

- a. Understanding human behavior with regard to fire and risktaking and how this behavior can best be modified to reduce the incidence of fires, injuries and death.
- b. Understanding of the basic nature of fire, flame spread and fire growth.
- c. Development of improved fire resistive materials and their application.
- d. Development of reliable low cost fire detection and alarm devices for residences.
- e. Development of improved personal protective equipment for fire fighters.
- f. Development of improved suppression methods and equipment.

Real emphasis is needed on applications oriented research and bridging the gap between the laboratory and users. We do not wish to make an estimate of cost at this time.

*Question: In your studies, have you found that the fire fighting function of municipal governments is given a low priority?*

You state that regionalization or consolidation of fire protection efforts of several separate jurisdictions, to pool efforts toward a single better system may be a solution to this problem. Is there a trend toward regionalization of fire services?

Answer: The fire fighting function of municipal governments is currently being examined very carefully. Attempts to cut protection due to budget squeezes are in evidence. The complaint most often heard from the fire service is that without a counterpart to LEAA, their relative position to police is deteriorating. Lack of a good data system makes the substantiation of appropriate levels of protection extremely tenuous. It is clear, however, that far too little (less than 5%) of municipal budgets are going into fire prevention.

Yes, there is a trend toward regionalization or consolidation of local community fire departments into county-wide or regional fire departments. This has been realized in Dade County, Florida, Fairfax County, Virginia and Los Angeles County, California, and been suggested for Santa Clara County, California. It is in fact happening throughout the country in many forms. In some areas only certain functions are consolidated, for example, alarm centers and dispatch. There is, however, considerable resistance to change.

*Question: It has been reported to me that the codes and standards of this nation related to fire are a national disgrace. Has the omission formed an opinion on this?*

Answer: It appears that our codes and standards related to fire are good in principle but are sorely lacking in practice. For the most part, those that are most widely accepted have been evolved over a period of years by consensus type

groups dominated by special industry interests. Local authorities in adopting a variety of different codes and standards have caused confusing requirements in different parts of the country. We are seeing moves by some code-making bodies to develop more uniform standards. This, of course, should be encouraged and hopefully incentives can be created that will cause acceleration of these efforts.

Education of users to the best application of our codes and standards is a continuing problem. The groups that must be reached include architects, engineers, owners, consumers and in fact local building officials who must adopt and enforce codes and standards. We believe that the value of codes is undermined by lax enforcement in many localities because of a variety of political and economic pressures.

The CHAIRMAN. Next we will hear from Mr. Gordon Vickery, former chief, city of Seattle.

#### STATEMENT OF GORDON VICKERY, FORMER CHIEF, CITY OF SEATTLE, WASH.

Mr. VICKERY. Thank you, Mr. Chairman. I was particularly gratified this morning to hear the concern for the volunteer fire departments. I, of course, started as a volunteer, had 3 years in the volunteers, before I became a professional firefighter. I don't think you knew that, Senator, so it is gratifying to see the interest. I think I could elaborate a bit on Mr. Bland's answer that many of the things that you will do for the professional fire service will benefit the volunteers. I am talking about training centers, things of this sort.

It has a tendency to filter down, and this is where they go for a great deal of their help. I am here, of course, to support the Commission and its findings to date. I think they have done a fine job. I think those of us who have spent a long time in the fire service feel it has come along a great deal faster and more professionally than we presumed it would. The fact they are able to come in here and make the type of report they have, I think it deserves support.

And I think you, Mr. Chairman, and the other members of your committee should be complimented for showing the interest you have in the progress they have made. I would hope, as this thing goes along, that you would have a permanent fire commission. I think it is a very necessary thing in the fire service. And hopefully, the Commission is going to recommend an academy. I hope it does get the support, a professional fire academy.

One of the things that has always concerned me, when the Federal Government wants to help some governmental entity, whoever it might be, they want to buy hardware of some kind, buy fire trucks. We did this back in the civil defense days. I hope the emphasis here is on people, not on hardware. I think hardware will come along. It is needed, but I hope the skills of management can be improved substantially in the fire service.

And I hope as money is provided that that is where the primary and initial direction will go. I couldn't agree more with Chairman Bland when he indicated that before we can solve problems, we must have facts. We do not have facts in the fire service at the present time regarding loss or many other things.

It is pretty much a matter of each area making up its own figures and there is no common standard to judge by. So, I think it is impor-

tant we establish a national data bank. I would like to emphasize in that respect that I hope there is no proliferation of agencies trying to do this. I think this has happened before and I hope whether it is an academy or some central organization they can use possibly the skills of others, or some of their data, but we not have several agencies trying to do the same thing.

The CHAIRMAN. One question, and that is to all of you. I think there is a feeling, which may or may not be substantiated by facts, that the people who make fire equipment have pretty much a built-in constituency.

Mr. VICKERY. Very much so.

The CHAIRMAN. The manufacturers are there, and there is not much the purchasers can do about it. In a situation like this, there may sometimes be a little dragging of the heels to get into more research and development of new products, because you have no other competitive product to turn to. A permanent commission could probably encourage research and development efforts.

Mr. VICKERY. I think that is very well taken. The apparatus manufacturers could use a little prodding, in particularly research and developments.

The CHAIRMAN. I am not complaining but there is a tendency, when one has customers that are captive, to just go on selling the same thing. How competitive is the firefighting apparatus field?

Mr. VICKERY. Reasonably so. You don't have a great number of manufacturers. I think again the emphasis has to be on manpower, really, and managements training, this sort of thing. I will speak now in the next 2 or 3 minutes here about the professional fire service, because I really feel this is where the emphasis will originally be applied. I would hope—it gets into the area you mentioned about code enforcement and good codes, this sort of thing—that we do have real full utilization of manpower. This includes—fire prevention is a very, very broad description. To many people it means 1 week a year. I think the answer to a significant amount of the fire problem in America lies in real good inspection. I am talking about 24-hour-a-day inspection, utilization of manpower.

The fire service, seriously, has been a rather reactionary group nationwide. I think for the first time this Commission is identifying some things that are going to bring them along more rapidly in fully utilizing manpower. It gets into the area you mentioned of medical programs. I think emergency medical care in America today is a disaster, and I think the fire service can be a significant factor in resolving that problem.

There are many other areas, things that are small things they will be mentioning to you, like lateral movements in the fire service. Why shouldn't the Federal Government support the transfer of people between Seattle and Miami, for a given period of time, so we can share the skills that have been developed or will be developed.

Finally, as you know, we have worked this out pretty successfully in Seattle, but I think generally the fire service has a poor record in the eminence of minorities. Mr. McClellan and his organization have a fine pilot program going. But I would hope the Commission and this committee would address itself to the problem of minority eminence in

the fire service. I think we have just gotten this program off the ground and it is something a full time commission could focus on.

In summary, I would just support wholeheartedly the findings of the Commission to date. I think they have done a fine job. And if there is some way, even though I am now with City Light, if I could lend my help, I would be happy to do so. I do again urge the Federal Government, as it directs its attention to this problem, to consider a full time commission, ongoing permanent commission, and a national fire academy.

The CHAIRMAN. The Senator from Alaska, Senator Boggs, myself, and the rest of us on appropriations, have had an awful time getting sufficient funds to keep alive these emergency medical services. As you know, Seattle was selected as one to begin with, as sort of a pilot operation.

Because of the success of these two or three pilot operations, one being in Seattle, many other places want them, too. Tell us briefly what the Seattle operation has done.

Mr. VICKERY. We started, of course—

The CHAIRMAN. I know all Fire Departments have emergency medical services, but sometimes they don't have enough equipment or people.

Mr. VICKERY. This is a matter of utilization of manpower. In Seattle we were able, because we are a larger department, to use some of the people that were available at that time. I think you are going to have to augment many, many departments to provide proper medical care.

Silver Spring, Md., Miami, Los Angeles County, and some others are doing fine pilot programs.

This thing is at the stage, the emergency medical care by firemen is at the stage where I think it could blossom into one of the greatest things that ever happened in America to save our communities. We have saved literally in Seattle, many, many lives.

I think this thing is just ready to take off. That is why I mentioned it in relationship to the Commission, and an academy. There are some things we are sharing nationally. But it is at the point where it does need some financial help and needs some identity.

Again we get back to the matter of training. Whether it be at the academy or whatever, you cannot train people to the degree that is required for this type of medical care, without some sort of financial assistance.

You have nationwide now, the emergency medical technician program, a 71-hour program.

You have one being written that the Department of Transportation will implement in the next year, 420 hours.

We are now up to 1,420 hours in Seattle with our emergency medical program.

We always think about fire, but here is a thing that is so pertinent to the subject, and the support of fire departments, and identity of that problem, and how you resolve it can't help but make a stronger fire department.

The CHAIRMAN. Our problem here on that is that in some places—and this happened at home—when the Federal Government comes in with a grant, there is a tendency of the people who would normally

give local financial support, such as the city council or the State legislature, do not do so because the Federal Government is involved. This is unfortunate because these programs, to be successful, have to have local financial support. I hope that won't occur as these things develop.

We can document at home, as you say, that life after life after life, has been saved because of this unit. Now, has the medical profession been cooperative?

Mr. VICKERY. To a reasonable degree. I don't think it has been outstanding.

You find certain individuals such as Dr. Leonard Cobb, who have done an outstanding job.

I think nationally they were a bit suspicious. They were questioning whether firemen could acquire and use this skill.

We have proven they can, they are floating pacemakers, they are doing all sorts of things people didn't think they could do a year ago.

The CHAIRMAN. I have been urging the medical profession to get better organized for this sort of thing, and they can, volunteering their time, like a lot of us do for many different things. They want to do it but they just haven't been organized and they don't understand the significance of it.

Mr. VICKERY. I would like to emphasize one point: I think you ought to be a little hardnosed, as this money becomes available, to see that there are some qualifying points, or the people in the community, whether it be fire department, medical aid or whatever, that there are mandatory requirements and they don't share in the Federal help that is available unless there are things such as you mention.

I would hope that be emphasized in any financial assistance that is given.

The CHAIRMAN. Thank you.

Do you have any questions, Senator Stevens?

Senator STEVENS. No.

I appreciate your comments. We, in Alaska, originally established a police academy. Now we changed it to a Department of Public Safety Academy, and we are doing a little of this, but the cost is fantastic.

I take it you are talking about something similar to the FBI Academy on a national level?

Mr. VICKERY. That is correct, sir.

I don't think we necessarily have to have a brick and mortar academy immediately.

Dr. Bland and Mr. Hechtman are well qualified to define the route we should go. We have a 2-year associate degree program in Seattle. But I think there has to be some sort of academy approach, and how well or how rapidly it is expanded, I don't think is important.

When I say academy, and we think about Alaska, most of the people you have in Alaska that have been trained in the emergency medical care field, have been trained in Seattle. This is what I am thinking about, regional centers, where you could assist volunteers.

I know Anchorage, Fairbanks, the editor at Fairbanks bought them a vehicle. All those people were trained in Seattle. That would be an example of having a branch or a course available in Seattle, that people from Alaska or surrounding areas could benefit from.

Senator STEVENS. Very good.

Thank you very much.

The CHAIRMAN. On this business of arson, what are the figures at home? Do you have any figures as to the fire losses due to arson?

Mr. VICKERY. This is probably one of the real intangibles in the fire service, Senator.

As Chairman Bland indicated, it is very difficult to prove a case. Frequently the evidence is gone. But if there is one area in America that could be improved, it would be the path of arson investigation.

Any major city that tries to investigate a fire the day after the fire, when the overhaul or cleanup has been done, really probably would be unable to determine if it was arson.

But I would guess that the figure that was mentioned was 50 percent in certain areas—I don't think this is true in every area—

The CHAIRMAN. Arson is one of the hardest cases to prove. I know, as a prosecutor, it is a most difficult case to prove.

And then there is such a lag. By the time you get to proving it, from the time of the fire, it is almost forgotten at the end.

Mr. VICKERY. It is true.

Where you have another capital crime, and somebody shoots somebody, say at this hearing, you have witnesses, you have a weapon, you determine motive, and go to court.

None of these things happen in an arson case. It has been one of my real frustrations that in the LEAA money, arson was not considered a crime. I suspect this was done on purpose, so we could not share in the money. I don't know.

The CHAIRMAN. What percentages of fires are caused by defective electric wiring? Is that a big factor?

Mr. VICKERY. I wish you hadn't brought that up, inasmuch as I am now head of City Light.

But in Seattle, I think misuse of electric wiring probably, Senator, is a good point. In Seattle, in the last 5 years, it is either smoking and matches, or electric that is the major cause of fire other than arson.

The CHAIRMAN. You are now running City Light, selling ranges, selling energy, advising people when they build there homes to use electric heat, use this or that, do you have some standards in teaching these people, telling them what to do to make their home safe?

Or, put it this way, is our code strict enough?

Mr. VICKERY. Our code in Seattle is adequate.

The CHAIRMAN. All over I am talking about.

Mr. VICKERY. Not all over, the codes are not as strong as they could be.

Incidentally, in just three weeks, Seattle City Light and the Seattle Fire Department, for the first time will put on a joint educational and inspection program to try to reduce the electrically caused fires in Seattle during the coming year.

The CHAIRMAN. Well, that is a beginning.

Thank you, Gordon.

(The statement follows:)

#### STATEMENT OF GORDON F. VICKERY

I am appearing before you this morning to testify on the progress of the National Commission on Fire Prevention and Control.

I have had the opportunity to testify before the Commission several times, and in general I support its reports. The reports are well taken and worthy of consideration.

I also wholeheartedly support the establishment of a permanent federal fire commission to continue the work.

In addressing the problems confronting the national fire service—problems which result in the loss of thousands of lives and millions of dollars annually—I would like to discuss four major areas with you this morning. They are: *management, utilization of manpower, emergency medical services, and minority hiring practices.*

*Management:* The most critical needs of fire services in this Nation are not related to increases in sophisticated hardware—new super pumpers, taller aerial ladders, etc.—nor to technological gimmicks or fire prevention contests. What is needed most is good management—skilled administrators who are trained in progressive fire service management.

Historically, the typical fire chief comes from the ranks, slowly moving from one promotion to the next, until at last, by virtue of seniority, longevity, and fire combat ability, he reaches the pinnacle of his profession. It is then he discovers that he neither has the training nor the tools to properly administer a multimillion dollar organization which operates around the clock, 365 days a year.

The former, administrative training, can be obtained by the establishment of a national fire academy as recommended by the Commission. The latter, the tools, can be provided by the formation of a single national fire data bank.

Unless the Fire Academy has national fire statistics—some facts with which they can work—it is virtually impossible to formulate appropriate management and training programs. As incredible as it may seem, no uniform data base is available at this time.

*Utilization of Manpower:* The fire services in this Nation are a huge sleeping resource simply waiting to be awakened and utilized. A fire fighter will spend over 95% of his time waiting for a fire. His fire fighting time will occupy only about 1½% of his working hours. Obviously, the public has a right to demand more productivity for their tax dollar.

Every fire is a failure; something or somebody failed. It may be a failure of equipment, a failure in fire prevention systems, a citizen failure, a fire code failure, or some combination of these factors.

A proven way to reduce these failures to a fairly minimal point is through saturation inspections by in-service fire companies. I'm speaking of comprehensive inspections of all commercial and residential occupancies in the community. Inspections should be conducted by the entire fire combat team, not just a few specialized inspectors. This should be an all day, all night, effort.

When I refer to the fire service as a huge sleeping resource, I mean just that. Fire fighters have also been allowed the privilege of sleeping all night provided a fire doesn't occur. There's no reason why at least some of them can't be active, making inspections and conducting patrols of troubled areas during the nighttime hours.

Another feasible use of manpower can fall in the *emergency medical* field. It is a proven fact that fire fighters can provide sophisticated emergency medical service to the community. Cities such as Houston, Miami, Los Angeles and Seattle are now receiving emergency medical service from their fire-fighter/paramedics. This service is so advanced that even the most progressive would not have believed it possible a few years ago.

All fire departments can provide this type of service given the proper motivation and training. The resources already exist: communication systems for a rapid response; personnel on duty 24 hours a day; proper community-wide dispersal of fire stations to house the equipment; and that same huge sleeping manpower pool.

Last is the question of *minority employment* in the fire service. Frankly, minority hiring in fire departments throughout the Nation is virtually nonexistent. The employment of minority races into the fire service must be speeded up. A national fire service affirmative action program must be developed, and followed through nation-wide.

*Conclusion:* These goals can be attained. They must be attained. But the fire service needs Congressional help. The fire service needs federal funds—funds for the establishment of a national fire academy so that we can develop capable

fire administrators; funds to establish a national fire service data bank; funds to develop meaningful fire prevention programs and emergency medical services; and funds to help in the recruiting of minority races.

However, before granting funds to a specific fire department, I would demand that department's compliance in all suggested fields. The individual fire department would have to participate in all phases of the recommendations, not just those items that might appeal to them.

This Committee has the opportunity to help awaken a huge, virtually untapped resource; it awaits but your action.

I'll be glad to answer any of your questions.

The CHAIRMAN. Now we have Deputy Chief Joseph Galvin. We will be glad to hear from you.

#### STATEMENT OF DEPUTY CHIEF JOSEPH GALVIN, NEW YORK CITY FIRE DEPARTMENT, NEW YORK, N.Y.

MR. GALVIN. My name is Joseph Edward Galvin. I am a deputy chief in the New York City Fire Department, a rank I achieved as a result of a competitive written examination, which examination was prepared by the Department of Personnel of the city of New York.

Until last week I was battalion chief, in command of Battalion 12 in the East Harlem section of Manhattan. Chiefs of Battalion 12 supervise the activities and operations of six firefighting line units composed of three engine companies, one squad company, and two ladder companies.

In 1971, chiefs of Battalion 12 responded to a total of 4,944 alarms, for an average of 400 alarms per month. There are 165 firefighters and 30 officers assigned to the 12th Battalion, protecting the lives and property of approximately 150,000 people jammed into an area 20 city blocks long and nine city blocks wide. There are about 70 cities in the United States with populations greater than the 12th Battalion response area, and I referred to myself, unofficially, of course, as "The chief of the East Harlem Fire Department."

There are as many people within the 12th Battalion area as there are in New Haven, Conn.

East Harlem is an area of extremely high population density, where the crime rate is appalling, the level of housing minimal, the narcotics problem overwhelming, and the firefighter's workload staggering. It is a polyglot neighborhood composed mainly of rundown tenements built in the early nineteen-hundreds, old tired brownstone homes, stores, warehouses, and even some hovels.

Some refer to the area as "culturally deprived," some call it a "ghetto," some call it "El barrio." I call it simply a slum.

It is inhabited by mostly blacks and Spanish-speaking people on the lowest rung of the cultural and social ladder for whom the term "upward mobility" is a cruel joke. In that rotten filthy area are some of the finest people I've ever met.

Prior to my assignment to Battalion 12, I had served as a captain of a ladder company in the area, as a lieutenant in the Williamsburg and the Brownsville sections of Brooklyn—Harlem's counterpart—and in industrial and residential sections of the Borough of Queens.

I served as a firefighter in the midtown section of Manhattan and as a firefighter and lieutenant in two of the fire department's four rescue companies. Each and every assignment resulted from transfer

requests which I had voluntarily submitted through channels so that I would have a broad knowledge of the department's operations and problems, as well as problems unique to certain areas of the city.

The New York City Fire Department currently has a roster of 14,144 members, 653 pieces of apparatus, seven fire boats and over 300 buildings. There are units of the New York Fire Department which responded to over 8,000 alarms. I have spent the greater part of my career in the so-called "problem areas," and so see my role here today as one who brings to your committee "information from the trenches."

The CHAIRMAN. We appreciate that very much. We will put the remainder of your statement in the record.

I am sure all of us appreciate the almost unique problem that cities like New York, that go up instead of sprawl, have in this field.

What about the fire code? Do you think that is sufficient in New York, Manhattan?

Mr. GALVIN. They diluted it in the recent past. It was much stricter in the past, but due to pressure from various specialist groups, it has been watered down.

The CHAIRMAN. Watered down?

Mr. GALVIN. It certainly has.

The CHAIRMAN. Well, somebody is always trying to cut a corner, even building a new building.

Mr. GALVIN. Yes, sir.

The CHAIRMAN. What is your opinion about the suggestions that will be made that we should emphasize more fire prevention, whether it is in New York or other places, and that we should see what the Federal Government can do in the way of better training, more sophisticated equipment, and things of that kind?

Mr. GALVIN. I concur with Mr. Bland that fire prevention should be the primary consideration. He described the fire suppression as remedial action. That is what it certainly is. Somewhere along the line someone has made an error.

The CHAIRMAN. All right. We appreciate your appearance. I am sorry we can't talk about this longer with you and all of the witnesses, but we have a problem on the floor.

(The statement follows:)

#### STATEMENT OF JOSEPH GALVIN

My name is Joseph Edward Galvin. I am a Deputy Chief in the New York City Fire Department, a rank I achieved as a result of a competitive written examination, which examination was prepared by the Department of Personnel of the City of New York. Until last week, I was Battalion Chief, in command of Battalion Twelve in the East Harlem section of Manhattan. Chiefs of Battalion Twelve supervise the activities and operations of six fire fighting line units composed of three engine companies, one squad company, and two ladder companies. In 1971, Chiefs of Battalion Twelve responded to a total of 4944 alarms, for an average of 400 alarms per month. There are one hundred and sixty five firefighters and thirty officers assigned to the Twelfth Battalion, protecting the lives and property of approximately one hundred and fifty thousand people jammed into an area twenty city blocks long and nine city blocks wide. There are about 70 cities in United States with populations greater than the Twelfth Battalion response area, and I referred to myself, unofficially of course, as "The Chief of The East Harlem Fire Department". There are as many people within the 12th. Battalion area as there are in New Haven, Connecticut.

East Harlem is an area of extremely high population density, where the crime rate is appalling, the level of housing minimal, the narcotics problems overwhelming, and the firefighter's workload staggering. It is a polygot neighborhood composed mainly of run down tenements built in the early nineteen hundreds, old tired brown-stone homes, stores, warehouses, and even some hovels. Some refer to the area as "culturally deprived", some call it "a ghetto", some call it "El Barrio". I call it simply a slum. It is inhabited by mostly blacks and Spanish speaking people on the lowest rung of the cultural and social ladder for whom the term "upward mobility" is a cruel joke. In that rotten filthy area are some of the finest people I've ever met.

Prior to my assignment to Battalion Twelve, I had served as a Captain of a ladder company in the area, as a Lieutenant in the Williamsburgh and the Brownsville sections of Brooklyn (Harlem's counterpart) and in industrial and residential sections of the Boro of Queens. I served as a firefighter in the mid-town section of Manhattan and as a firefighter and Lieutenant in two of the Fire Department's four Rescue Companies. Each and every assignment resulted from transfer requests which I had voluntarily submitted through channels so that I would have a broad knowledge of the Department's operations and problems, as well as problems unique to certain areas of the City.

The New York City Fire Department currently has a roster of 14,144 members, 653 pieces of apparatus, seven fire boats and over 300 buildings. There are units of the New York Fire Department which responded to 7500 alarms for the calendar year 1971 and one which responded to over 8000 alarms. I have spent the greater part of my career in the so called "problem areas", and so see my role here today as one who brings to your committee "information from the trenches".

During my twenty year firefighting career, I've been blown from the roof of a blazing pier; have had the man next to me on the hose line gasp and die as we tried to advance into a burning tenement; have had a woman relieve herself on me as we carried her down an aerial ladder from a blazing Harlem tenement. I've worked seven hours in a blizzard, while soaked to the skin and had to be taken to the hospital as a result. I once literally tore the arms from a dead burned firefighter who was trapped beneath a truck, while I lay in vomit thrown up by someone else who was not equal to the task.

I've saved lives and have had mine saved several times by my brother firefighters. I've suffered injuries ranging from scalds and burns to a form of "combat fatigue". I've been taken to the hospital, unable to walk, due to the swelling in my heels resulting from sliding the firehouse pole over twenty five times during one single night tour in East Harlem. I've been in building collapses to assist in the removal of victims when the building was threatening to collapse over our heads and bury us. I've been cursed at, punched, and assaulted by so-called "toughs" so many times, that incredibly, I'm almost inured to it. I've fought off a group of hoodlums who had enveloped our apparatus and were attempting to steal our tools and equipment. However, and this is quite important, I am not alone nor unique. Many other professional firefighters have endured much more than I, and will carry terrible physical and emotional scars to their graves.

During my tour of duty in the Submarine Service during World War II, I was on the receiving end of dropped depth charges, bombs, bullets, and even a thrown tool. I endured the terrible and debillitating heat and humidity of the tropic seas, as well as the brutal cold of the north Pacific off Hokkaido, Japan. I've spoken to firefighters who fought in "The Battle of The Bulge", Iwo Jima, Pork Chop Hill in Korea, and in Viet Nam, and therefore have been placed in an ideal position to compare the hazards experienced by the urban professional firefighter with the hazards and horror of wartime combat. About three weeks ago, I watched a young exhausted firefighter in East Harlem vomit his supper up in the hall-way of a tenement after he had subjected himself to maximum physical punishment searching for a missing child at a fatal fire. As he stumbled about I asked him (a veteran of the First Cavalary Division who had served in Viet Nam): "Tom, which is worse, this or out in the boondocks in Viet Nam?" His reply was interesting, as he replied: "They're both lousey."

The latest facts from the National Safety Council prove conclusively that fire fighting, with 115 accidental work deaths per 100,000 workers is the most dangerous work in this country, followed by mining and quarrying with 100 ac-

cidental work deaths per 100,000 workers with police work third with 73 accidental work deaths per 100,000 workers. Why isn't this information common knowledge?

Why doesn't the fire service have the equivalent of "combat correspondents", representing the news media? Because no writer would, or could endure the horrible experiences which the urban firefighter puts up with day after day. And we of the fire service have suffered terribly from this failure to have an accurate portrayal of our lives—and deaths—brought forth to the public.

To be a member of a ladder company, crawling around the smoke-filled rooms of an occupied tenement, searching for possible fire victims, while three or four rooms are afire in the apartment directly below, is one of the most demanding tasks required of a human being. To be given the assignment of cutting a hole in a building's roof to effect ventilation so that the engine company personnel down below can advance its line, when every enlargement of the hole allows superheated smoke and gasses to blast into one's face, demands the ultimate in dedication and raw guts. The human body is subjected to such a high level of punishment during the performance of these tasks, that no one, and I mean no one but a professional firefighter would place his body in close proximity to the immediate area.

Reporters covering fire stories limit their observations to those made from the building's exterior, and enter the building only after the fire has been extinguished. Photographers take photographs of heavy appliances directing mighty jets of water into fire buildings while virtually ignoring the snaked hose lines entering the building. I suppose they don't realize that on the business end of those hose lines are small groups of dedicated men, led by skilled officers, giving up a portion of their lives. You see, professional firefighters as a rule, have life spans approximately seven years less than the average American male. I've seen some of my men leave their firehouses after the completion of their tour of duty, almost disoriented from fatigue and the effects of noxious gasses. To respond to over twenty alarms during one night tour, and get three or four tough fires back-to-back is a terrible experience. What motivates men to perform this task? Years ago, the bosses in the sweat shops would yell: "If you don't like the job, quit." Yet few firefighters quit.

After twenty years of working with and observing professional firefighters in every conceivable type of situation from emergency child-birth to a plane crashing into a busy city intersection with the loss of over one hundred passengers, I've concluded that the glue which holds them together and the overwhelming factor which motivates us is a combination of brotherhood and love. The misery, suffering, and pain which we firefighters share creates a bond which those outside the fire service cannot comprehend. Wives, sweethearts, mothers, friends, or any outsider cannot intrude into this unique fraternity which results from being truly brothers. This spirit of comradeship, esprit, or whatever name you choose to use, grows from the development of mutual respect and admiration which each man has for another, and is a form of love. And that special love which men in combat develop for one another is indeed a wonderful thing to share in, or even to observe. We professional firefighters endure hardships and share experiences which we'll never forget, even if we live to be two hundred. The crucible of arduous fire duty welds us into a tough steel-like chain, which may be strained but never parted.

In recent years, we have all but been inundated by television shows, newspaper and magazine articles, movies, and books, describing in detail the problems of the law enforcement officer (all valid) during this era of "crime in the streets". This has resulted in hundreds of millions of dollars being granted to police departments throughout this country by both state and federal government agencies. In addition, private foundations (including the Ford Foundation to the tune of thirty million) have donated additional millions to upgrade the policeman's efficiency. Police Science courses are being offered in many universities on a scale far greater than that of the Fire Science courses. Even tours of duty for the policeman students are often specially arranged to allow the aspiring policeman to raise his educational level. The work schedules in the New York City Fire Department for example make it very difficult for a firefighter and almost impossible for an Officer to attend the Fire Science course offered at the City University. In fact, it almost seems as if the Police Department will go to almost any length to assist their personnel in the quest for higher learning, while the Fire

Department seems almost apathetic. For instance the lectures given at the City University to the Police Science candidate for his Associate Degree are given during the day and then repeated at night so that the policeman working the day tour can catch the lecture during his off-tour. This is not true for the Firefighter candidate for his Associate Degree in Fire Science. Why this disparity? The answer is lack of funding.

Why do some units in the \* \* \* have to purchase modern equipment out of their own personal money i.e. (a) the most up-to-date fog nozzles (b) brackets and holders for tools and equipment (c) compartments to protect their masks (d) first-aid-kits (e) nylon rope for life saving purposes? Why must firefighters use hand tools which are exactly the same as those used by our predecessors back in the Victorian era to extricate victims from automobile wrecks while available are simple hydraulic tools which do a more efficient and safe job? A recent report by a government agency stated that approximately 18 percent of those who die as a result of a vehicular accident do so due to inadequate emergency medical care. Why isn't there something done about this scandalous situation? Why isn't there a crash program going on right at this very moment to provide the firefighter with a longer lasting but lighter weight mask? The type currently used by most fire departments was developed during World War Two and weighs about thirty pounds. Did you know that it can be expended in less than ten minutes during arduous fire operations? Why isn't there a National Fire Academy staffed by superb instructors to train key personnel in the latest techniques of fire suppression and other vital areas? Why isn't special consideration given to the firefighter's pension plan? Why should the professional Firefighter be lumped in with clerks, hospital orderlies and bus drivers when it comes to pensions, as is currently being attempted by some cities?

Why finally isn't more attention being given to the correlation between narcotics use and the appalling increase in fires, emergencies and false alarms? When I entered the Fire Department in 1952, the busiest Engine Company in the City, Engine Company 58, responded to 2317 alarms for the year. Last year they responded to 4891 alarms. In 1952, Engine Company 82 responded to 1741 alarms while in 1971 they responded to 7871 alarms, and thereby became the busiest Engine Company in the country. Ladder Company 120, in the Brownsville section of Brooklyn responded to almost 9,000 alarms last year. Is there another occupation whose work load has increased at such an appalling rate? Impossible.

Narcotics has accounted for much of that increase and I would guess that it accounts for about fifty percent of the work load. How does this come about? Narcotics addicts (humans reduced to almost an animal state) must steal to get enough money for their terrible habit. They burglarize flats and tenements and oftentimes set fires behind them to cover their tracks. At other fires, while the occupants are evacuating the building, the junkies come in over the roofs and up the rear fire escapes and steal the possessions of the evacuees. At times the firefighters have been blamed for this theft and much time is spent in investigations. In addition, bad feeling results, most of it undeserved. Automobiles by the thousands are stolen in the large cities and abandoned after the thieves (mostly junkies) have stripped them as a piranha would strip a body. They become eyesores and are set afire so that the fire departments will respond and then arrange to have the carcass removed. Junkies break into vacant buildings and turn them into shooting galleries, where they doze in almost coma-like sleep. Often they fall asleep while smoking and the resultant fires extend to the adjoining buildings causing further misery when these buildings are occupied by mostly the poor and miserable. Well meaning but ignorant people in the neighborhood often set fires to these vacant buildings to drive the junkies out and the fire spreads and again causes further misery and hardship, and now the problem is compounded.

Almost daily the firefighters in the "problem" areas are crawling through animal and human fecal waste, through the remains of dead cats, dogs and rats; through glass filled mounds of debris, over urine soaked mattresses to search for possible fire victims while choking and gasping in buildings ostensibly vacant. The walls of many of these abandoned buildings have been weakened by previous fires and at any moment may fall and crush our people. Holes from previous fires are in the floors, ready to swallow the firefighter operating in an atmosphere of zero visibility and maximum heat and smoke. Junkies have torn off the brass piping and fittings in the plumbing system and the cellars are often filled with a couple of feet of water where a firefighter might drown if he fell through the holes in the first floor.

The neighborhood slowly inexorably deteriorates and the people become filled with hate and loathing. They see the firefighter as a convenient and unarmed scapegoat. This must be experienced or observed at close hand to be appreciated. Few of the firefighters in the Harlem area dare to use public transportation. Fear is the prime factor which governs our mode of transportation. To use the subways in that area is to literally risk robbery, assault or possible death. I never ventured more than about one hundred feet from the firehouse alone during the evening hours; and never left the firehouse after midnight except to an alarm of fire. Prior to midnight I'd sometimes hurry to a nearby newsstand, make my purchase, and then scurry back to quarters almost like an animal. To send a firefighter alone on some of those blocks, in broad daylight, is to court disaster.

Derelicts, perverts, prostitutes, hoodlums and criminals constantly cursed us, taunted us, harassed us and generally made our tours of duty miserable. I've been called a "——", been told: "your mother ——" and "you eat your ——". Recently at a minor fire on 117th Street, I asked a young girl if she knew the name of the building's owner. She replied: "find out yourself, you ——." She was approximately fourteen years of age. These remarks sear into a man's very being, and leave their mark. One must learn to "bite your tongue".

The young people of the community see nothing in sight but further poverty and misery and sometimes lash out by pulling the fire alarm box and then peiting the firefighters with rocks, garbage, and sometimes shooting at them. While we respond to hundreds of false alarms, the rest of the area is being robbed of fire protection, and small fires extend and become large ones as we go up and down the streets in seemingly endless responses. The exhausted firefighters become bad-tempered and sometimes respond negatively to the young hoodlums and the awful vicious cycle goes on and on.

You can readily see that "crime in the streets" and the Safe Streets Act and other programs to make our communities better places in which to live should be applied to the firefighters who are being assaulted and treated so shabbily. Appropriations are needed to escalate our war on narcotics, which from my vantage point is the number one problem of the nation's cities. Money is needed to up-grade the level of training, especially in the field of emergency care given to accident victims. Money is needed so that the firefighter in the atomic era is not using tools used by the firefighter of the Gay Nineties. Money is needed for research and development so that the modern day professional firefighter is not wearing fire clothing which men back in the Twenties complained of as being deficient in safety.

Last fall, an examination was conducted for young men who desired to become New York City firefighters. At that time my son, a college senior, evidenced some interest in the test. I advised him not to take the examination, for to see that young man subjected to the abuse and neglect my men take would almost break my heart. I think a terrible thing has happened when a father must dissuade his only son from following in his footsteps, in this most noble of callings—the saving of human lives. But until such time that the professional firefighter is given the respect, training, and equipment which he must have to properly perform his mission. I can't feel any other way.

Thank you for allowing me to express my views.

[The New York Times, Monday, Sept. 11, 1972]

#### THEY SOMETIMES FIGHT FIRES

(By Joseph Galvin)

Fire alarm box 1459 stands sentry-like, imbedded in concrete on the northwest corner of 123d Street and Lexington Avenue in East Harlem. It is neither unique nor impressive.

Ostensibly, the pulling of the handle of 1459 is to summon us to a fire and/or an emergency. I've responded to 1459 many times and the jobs have run the gamut: stabbings, fatal automobile collisions, shootings, murders, drug overdoses, brawls, a poisoning, stuffed up toilets, massive evacuation of hundreds of subway passengers via the emergency exit with the temperature in the cars at over a hundred degrees, multiple illegal hydrant usage making the intersection resemble a lake, false alarms and of course some fires.

The activities going on at that intersection on a summer's day are the embodiment of human degradation. Junkies and winos stand zombie-like against

the walls of the tenements and lean on automobiles. Empty wine bottles are strewn everywhere, and in odor of filth and misery pervades the way prostitutes glance at us, and I notice that some of them are almost in a trance. A young boy playfully kicks through a pile of empty beer cans at the curb in front of a bodega. Small groups of firefighters walk up and down the streets to determine the reason for the transmission of 1459. I get out of the battalion automobile, and as I do, glance into a tenement doorway on Lexington Avenue. The forms of two humans are visible on the floor and I go over to see what has happened.

Lying on the vestibule floor, unconscious, are two young women. They appear to be in their twenties, and one is lying partly atop the other. The one on the bottom has vomited, and in addition, her slacks are soaked from her own urine. An occupant comes down the stairs, glances at them impassively, curses and leaves. The battalion car, a station wagon, is quickly "setup," the resuscitator is readied and set on inhale, the firefighters don their work gloves and the girls are carried over to the car and swiftly placed in the rear. Two oxygen facepieces are positioned and we take off for the hospital two blocks away. At times the wait for an ambulance in that area can be interminable so we do the job.

We carry the girls into the emergency room and put them onto the wheeled stretchers and back away as the nurses swiftly go to work. I glance at the arms of these young women and see the marks of innumerable shots of heroin. Oh God it is horrible.

About twenty years ago I envisioned my career as one involving death-defying aerial ladder rescues, catching jumpers in nets, directing mighty jets of water into infernos and such nonsense. The nitty-gritty of the job is far removed from those youthful and naive flights of fancy and I'm just as glad. The name of the game now is service, and it takes many forms. To the aspiring firefighters, I say brace yourself.

[The New York Times, Thursday, Jan. 20, 1972]

#### NOW LISTEN TO A FIREFIGHTER'S PLEA

(By Joseph E. Galvin)

During my firefighting career I've been blown from the roof of a blazing pier, have had the man next to me on a hose line gasp and die as we tried to advance into a burning tenement, have had a woman relieve herself as we carried her down an aerial ladder from a blazing Harlem tenement in a snowstorm.

I've worked seven hours in a blizzard while soaked to the skin, and had to be taken to a hospital as a result; I once literally tore the arms from a dead firefighter who was trapped beneath a truck.

I've saved lives and have had mine saved several times by my brother firefighters. I've suffered injuries ranging from scalds and burns to a form of "combat fatigue." I've been taken to the hospital, unable to walk, due to the swelling in my heels resulting from sliding the firehouse pole over twenty times during one single night tour in Harlem. I've been in building collapses to assist in the removal of victims when the building was threatening to collapse over our heads and bury us.

I've also been cursed, punched, assaulted and insulted by so-called "toughs" so many times that, incredibly, I'm almost inured to it. I've fought off a group of hoodlums who had surrounded our apparatus and were attempting to steal our tools and equipment. However, and this is quite important, I am not alone nor am I unique. Many other professional firefighters have endured much more than I, and will carry terrible physical and emotional scars to their graves.

To be a member of a ladder company crawling around the smoke-filled rooms of an occupied tenement, searching for possible fire victims, while three or four rooms are afire in the apartment directly below, is one of the most demanding tasks required of a human being. To be given the assignment of cutting a hole in a building's roof to effect ventilation so that the engine company down below can advance its line, when every enlargement of the hole allows superheated smoke and gases to blast into one's face, demands the ultimate in dedication and raw guts.

The human body is subjected to such a high level of punishment during the performance of these tasks that no one, and I mean no one but a firefighter, would place his body in close proximity to the immediate area. You see, professional firefighters as a rule have life spans approximately seven years less than the average male.

Few of this city's citizens realize that some fire units respond to over seven thousand alarms during the year, and that each time they do the firefighters are subjected to tremendous emotional strain—not knowing whether the alarm will be a tragedy or a false alarm. I've seen some of my men leave their firehouses after the completion of their tour of duty almost disoriented from fatigue and the effects of noxious gases. To respond to over twenty alarms during one night tour and get three or four tough fires, back to back, is a terrible experience. What motivates men to perform this task?

After almost twenty years of working with and observing firefighters in every conceivable emergency, I've concluded that the glue which holds this great department together is a combination of brotherhood and love. The misery, suffering and pain which we firefighters share creates a bond which those outside the fire service cannot comprehend. Wives, mothers, sweethearts—none can intrude into this unique fraternity that comes from being truly brothers. This spirit of comradeship grows from the development of mutual respect and admiration which each man has for another; and is a form of love. And that special love which men in combat develop for one another is indeed a wonderful thing to share in, or even to observe. We firefighters endure hardships and share experiences which we'll never forget even if we live to be 200. The crucible of arduous fire duty welds us into a tough steel-like chain, which may be strained, but never parted.

In recent years we have all but been inundated by television shows, newspaper and magazine articles, movies and books describing the problems of the law-enforcement officer (all valid) during this era of "crime in the streets." This has resulted in hundreds of millions of dollars being granted by both state and Federal agencies to police departments throughout this country.

Doesn't "crime in the streets" and the Safe Streets Act relate to malicious false alarms, arson, assaults on and shooting at professional firefighter? Cannot we in the fire service acquire the aid of someone to forcefully bring to the attention of our citizens a truly honest picture of the firefighter's life? And death? Does it have to be left to a nonerudite individual like myself, so obviously out of my element, to attempt to get across the message that this noble calling—the saving of lives—takes a terrible toll?

What is needed is the effective spotlighting of the firefighter's problems; the unique skills required of the job and the need for aid—new equipment, research and development programs, a newer type of lightweight mask (the mask widely used now, developed for World War II, weighs thirty pounds and can be used up in less than ten minutes).

It should be just as easy for a firefighter to attend a course at a university as it is for a policeman, but the work schedules now in effect in the New York City Fire Department make it very difficult for a fireman and almost impossible for an officer.

Won't someone please come forward to help us?

(Joseph E. Galvin is chief of Battalion 12 of the city Fire Department.)

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None of the ideas, thoughts, or recommendations contained herein are the official policy of the New York City Fire Department. They are strictly my own, and I testify here today as an individual firefighter, and not as a representative of any group.

The CHAIRMAN. Mr. McClennan, we will be glad to hear from you at this time.

#### STATEMENT OF W. HOWARD McCLENNAN, PRESIDENT, INTERNATIONAL ASSOCIATION OF FIREFIGHTERS, WASHINGTON, D.C.

Mr. McCLENNAN. Thank you very much, Mr. Chairman. I am thankful for many things here this morning. No. 1, I am thankful, sir, that you were in on the birth of fire safety and research. I am thankful we have three Senators, Boggs, Magnuson, and Stevens, on the Appropriations Committee. Beautiful.

I am a little scared with this hard-nosed approach. I have been up against some other people who were hard-nosed when it came to getting money for the fire service. I agree with you there has to be some standard, some way of controlling the money. But please don't make it too difficult, so that in the long run we wind up still being the forgotten service. I am thankful also, Mr. Chairman, that after a lot of persuasion by the firefighters, the fire people throughout the Nation, that President Nixon did finally appoint this Commission. As you know, I am a member of the Commission, vice-chairman of it. When we first started, I was a little upset, discouraged. I thought the fire service was going through some rhetoric again that we had been through many, many times. But seeing this Commission in action, seeing the people testifying, seeing people such as yourselves with the interest of the firefighters at heart, I am pleased.

On behalf of the 160,000 members of our organization, we want to say thank you to you. We are concerned primarily, of course, with protective equipment, clothing, breathing apparatus, and the fire academy. I think we are well on our way, NASAS working with us, we have more people than ever before working to do something for the fire service. We have legislators coming to us saying we want to file bills for the firefighters, will you give us bills to file? This is a dramatic change over the past 2 years. So we in the fire service, men who ride the back step, men who extinguish the fires, say to all of you people who made this all possible, a great big thank you. We are quite pleased.

I have said many times, we can put a man on the moon, but we can't put a firefighter in a building and let him stay in 30 minutes and get out alive with the type of apparatus we have today. With all of the technology we have today, surely we can develop something to protect our men. Senator, that is it for the fire service.

The CHAIRMAN. We appreciate your remarks. I am hopeful that people won't get discouraged, because I do think the commission and some of the things that the local people are doing in New York and in my hometown and every place else, including the volunteer people that the Senator from Delaware is so interested in, are all creating a national interest in these problems that didn't exist before. Formerly, everybody was on their own, scrambling with the city council to get a little wherewithal, and there wasn't much coordination. Now we can coordinate on some basic reasons, cause, education, and things of that kind.

I don't know, we have passed a lot of bills out of here—I authored the first Flammable Fabrics Act way back in 1953. Nobody paid much attention to it. There wasn't sufficient interest. We had to have a nationwide catastrophe to bring that about. A lot of young girls in imported sweaters were burning to death. That started it.

If municipalities have a good fire code, it should be enforced. A lot of places have good codes, but don't enforce them. Good, uniform enforcement would help departments all over. I hope we are creating that interest. We will cooperate the best we can within our capabilities up here.

Mr. McCLENNAN. I think the points you made here this morning, Senator, you just touched briefly on it, probably some of the other

members of the commission weren't knowledgeable about what you said. But we in the first service certainly are thankful for what went on in the House and the Senate this week, and the \$50,000, which protects not only the paid professional firefighter, but the volunteer, too.

Senator Kennedy's insurance bill, I think it is \$33,000 or \$38,000, this is an indication that you people up here on Capitol Hill want to do something for the fire service. We are quite pleased about it.

The CHAIRMAN. And we have had some problems. When we created this Commission, there was a big fanfare downtown, all of you people were invited, and a big thing went on. Then when the budget came up a few weeks later; it was zero, nothing.

Mr. McCLENNAN. You are telling me.

The CHAIRMAN. This is what I have to take care of and we will try and do the best we can. I have to go to the floor. We thank you very much.

Mr. McCLENNAN. Thank you, Senator.

The CHAIRMAN. Any help we can give on our way to your final conclusions, let us know. Thank you.

(Whereupon, a 11:25 a.m., the hearing was adjourned.)

(The following information was subsequently received for the record:)

NATIONAL COMMISSION ON  
FIRE PREVENTION AND CONTROL,  
Washington, D.C., September 21, 1972.

Mr. JAMES B. OLSEN,  
Senate Commerce Committee,  
New Senate Office Building, Washington, D.C.

DEAR MR. OLSEN: It was a great pleasure to work with you this morning at the Senate Commerce Committee hearing on the National Commission on Fire Prevention and Control.

I am enclosing four photographs which you saw today. They illustrate better than any words the horror which over 330,000 Americans suffer through crippling burn injuries each year. We would like to have these pictures appear in the hearing record text which you are preparing showing the same child before and after he and she were struck by fire.<sup>1</sup>

Thank you and with best wishes.

Sincerely,

CLAYTON WILLIS,  
Director of Public Affairs  
and Congressional Relations.

<sup>1</sup> The pictures are in the Committee files.







