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NATIONAL CIVIL DEFENSE PLANS AND PROGRAMS

Honorable Steuart L. Pittman

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Reviewed by Col. E. J. Ingmire, USA on 30 October 1963

INDUSTRIAL COLLEGE OF THE ARMED FORCES

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National Civil Defense Plans and Programs

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21 October 1963

ADMIRAL ROSE: You will recall that an Executive Order signed by the President in 1961 transferred the major civil defense functions from the Office of Civil and Defense Mobilization to the Department of Defense. That was the time when the OEP - the Office of Emergency Planning - was also created. In carrying out the directive of the President, Mr. McNamara created a new position, the Assistant Secretary of Defense for Civil Defense, and he appointed our speaker this morning, to this post.

As you have noted, in reading his biographical sketch, our speaker has had extensive experience in numerous high executive positions in the federal government. His current assignment requires him to prepare plans to protect the civilian population in the event of a nuclear attack upon the United States.

It is my pleasure to present the Honorable Steuart L. Pittman, to the combined student bodies of the two schools. He will speak on "National Civil Defense Plans and Programs." Mr. Secretary.

MR. PITTMAN: Gentlemen:

It's a great pleasure to be here. I understand that my good friend and sometime adversary, Congressman Hebert, preceded me by a little bit. I haven't been able to find out what he said. I know one thing he said, I'm sure, which is, "I'm not going to play God. I don't know whether shelters will save lives, but I won't take the responsibility of saying 'no.'" He's been saying that around the country, to my distress, because it's not an argument that is applied effectively to the close questions of building up the defense

budget, new weapons systems, etc. But it did work very effectively for him in the House; we got a bill through there. And he has been a very strong ally of this. I am proud to follow him in talking to you.

I take very seriously the opportunity that is presented here for our program of civil defense, in addressing you gentlemen, because I'm completely convinced that civilian measures of defense against nuclear attack will be integrated fully with our defense system in the years immediately ahead. It hasn't happened yet. Some progress has been made, but I really see no alternative to this playing an increasingly significant role in the problem of defending against modern weapons in an attack upon the Continental United States. For this reason your attitude toward this problem and your understanding of it is important to our national security, and I think it's also important to your careers.

You have heard senior spokesmen for the Administration over the last two years saying that civil defense is now an integral part of the total national defense, and you're probably aware of the efforts that many of us have been making to have this come true. You may also be aware that really by coincidence, I think, the Soviet Union has been saying the same thing with a new emphasis. Their civil defense effort was transferred to their defense ministry about two years ago, about the same time that we put civil defense in the Defense Department, and made it a responsibility of the Secretary of Defense. It was not entirely a coincidence; I think similar moves have been made in other European countries. There has been a trend toward integrating civil defense more effectively with military defense, which is a logical result of the nature of the new weapons.

The Soviets have given it a new and higher priority, at the same time

that they were ridiculing civil defense in the Western World, going to some lengths a year or so ago to undermine civil defense efforts here and in Europe; they were giving it a higher priority at home and saying so, talking out of two sides of their mouths rather effectively; effectively in this country, because a lot of the technical doubts that were cast on our type of civil defense had taken hold in this country. I think the extreme emphasis on fire can be traced right back to Mr. Khrushchev, who, you'll remember, on one occasion was saying that a 20-megaton weapon would create a sea of fire between New York and Philadelphia; a certain amount of technical nonsense was thrown out. And unfortunately we don't seem to answer much in this country. No immediate official response came forward, and these ideas have taken hold; that there isn't much you can do; that these weapons are so vast that they can produce different effects and it's virtually impossible to defend against them.

At the same time, the Soviets have increased their effort to organize themselves and continued their efforts to build shelters and create physical protection against these same weapons. I would say that neither the Soviets nor the United States have fully realized the potential that exists in this field. I think they're making a somewhat greater effort measured in terms of the percentage of their gross national product. We've estimated it to be perhaps three or four times greater than our effort. But there is an air of unreality about some of the things that they're doing, as there is about some of the things that we have been doing and are trying to change.

I think it's an interesting paradox, while we are on the subject of what other countries are doing, that the countries in Europe that are doing the most are countries that have had the least experience with war and probably

have the best expectation of being by-passed by a nuclear war. The Swedes and Swiss, two great neutral powers, are leaders in this field. They're not just talking about it, but are organizing themselves. They're building shelters in both countries. They've taken new steps to extend a sort of World War II-type deep shelter against conventional explosions, to a more nationwide shelter system that would protect most of their population against fallout radiation as well as against blast and heat effects.

The Norwegians have a very realistic and ambitious program that passed in their parliament a year ago, calling for, again, a nationwide system of protection against the weapons effects as they see them. The Danes have done quite a lot. The Dutch are moving ahead on this. It's the countries that had the most direct involvement in World War II that are doing the least; the British, the French, the Italians, the Germans - in the German way - are addressing this very seriously. They have a large and ambitious plan which, as you might say, is in the negotiation stage before it comes to parliament, but I don't know whether it will reach parliament. The cross-currents in Europe are very deep and very emotional on this subject, as you can imagine; somewhat the same as the cross-currents here, but here they don't run so deep. I think it's a little more of a handle for groups with pacifist leanings to use; a kind of a symbol, as they've used atmospheric testing.

In Europe, those countries that lived through World War II, there's a deeper antipathy toward facing up to the possibility of attack by these types of weapons.

Now, this is simply a little diversion. I wanted to simply say to *you* that we're not alone in this country in treating this subject more seriously. There is a trend throughout the world as the weapons become more devastating

and have a greater reach, a trend to recognize that civilian measures of defense and military measures of defense cannot be separated; that one is an element of the other. I'm going to organize my remarks around the obvious questions. First; what are we actually doing to make civil defense more realistic? Second; what's the objective of the current program and how do we propose to get there? This was possibly the subject of Mr. Hebert's remarks, because it was the subject of our two months of hearings before him. I want to then go to the question, which I'm sure will interest you, of why our objective is not more ambitious, why we're not making more progress, and why we're not moving faster. And finally, assuming I'm right; that this is a high priority matter which is going to be sustained, I'll say a few words about what is going to sustain the priority, and how it's going to be communicated by the Defense Department; why is it going to be communicated. In other words, why a higher priority civil defense. What are the relationships between civil defense and the military strategy and weaponry which will maintain an adequate priority to get something done?

I think this last is a subject which hasn't been thought through thoroughly; there hasn't been enough said and written about it. There is room for some creative work on the subject.

Now, I think in showing you the general nature and specific progress we've made on the current program I will produce some slides which we've used with some committees in Congress - about a half-dozen of them - which will give you a quick insight into, first, what we think the problem is, what the conditions are that we're trying to meet; and secondly, what we're doing about it. If we could have the first slide.

This is a fallout map which is based on an attack upon the United States

with five to six thousand megatons delivered. Five to six thousand megatons delivered would represent, of course, a far greater capability to the Soviets because they wouldn't all get through. Some weapons would be programmed against Europe and other targets outside the Continental United States. Now, this particular map has been made public. It appeared in the Saturday Evening Post for the first time. It's not a bad typical illustration of the problem. It's a single day with the winds moving generally from the west to the east which are prevailing at the altitudes that are pertinent here for fallout, which is 40 to 80,000 feet up; they're not the winds that you have on the surface.

This map got us into trouble in Portland, Oregon, because we used it to prove their case that they don't have any problem out there. On another spring day you would, of course, have other areas covered, and it's our contention that there is no part of the United States that is not exposed to the risk of fallout radiation.

The way this map is constructed, you have three gray shadings; the lightest gray is one which requires shelter occupancy up to two days. The middle shade of gray requires shelter occupancy up to a week. And the black requires shelter occupancy up to two weeks, possibly with some decontamination required at the end of two weeks. Of course, as you know, there would be some residual radiation after these periods of time, which would require some care in the movement of people and the amount of exposure. It would be well to have children sleep in basements, etc. The problem wouldn't be over at the time that you emerged from shelters.

This represents a mixture of air and ground bursts, and the attack is against urban targets as well as military targets. I think the main message

of the chart is the reach of the fallout radiation; about 75% of the geography of the country is under serious radiation conditions requiring the use of shelters. We roughly estimate about 5% is exposed to serious blast conditions - heat and fire. True, the 5% would undoubtedly represent a very much higher proportion of the population per square mile, but still it gives you some idea of why the preoccupation with the fallout problem. If you'll give me the next chart.

This deals with the phenomenon of radiation and how it affects the building, the people in the building, food, and I might add, water. The problem is the accumulation of large amounts of the particles that descend from the fallout cloud to the ground, or on adjacent roofs. A little of this can blow into the window and it won't do any significant harm compared to the problems that exist at that time. It's the accumulation over a large, flat area which creates the problem. Then you get an intensity of the gamma radiation coming from the particles which can destroy the body cells and kill people. In order to break that up there is only one method that we know about and that's heavy masonry construction; density of materials of any kind.

We believe that there are no prospects now or in the future, for medication that would have any such effect which could make a difference of a factor of 2, 3 or 4. We have to break this radiation with a factor of 40, 50 or 100 in order to save lives. So, we don't think there is any alternative in sight except the density of materials to break up radiation. This means that as long as we predict fallout conditions attending nuclear war - fallout shelters; if you want to use that word, "shielding" of buildings, will not become obsolete.

The drawing illustrates that a good deal of shelter space is above-ground. About 70% of the shelter space we found in this survey is above-ground, not underground, contrary to the popular conception that shelters means digging a hole in the ground which is therefore an ignoble occupation. You will see that the heavy dark area in the center describes the core of the building where there is adequate shielding from radiation. The standard we've set for existing buildings is a 40-protection factor, meaning the radiation on the outside is 40 times greater than on the inside. In new construction our standard is a 100-protection factor.

The inset at the right is to illustrate that the same radiation that is making that man sick is going through his food and is not doing any damage to the food. He can eat that food and not become sick from eating the food. You have to have the particles themselves coming into the body through food or some way in order to get the damage. Then the particle deposits in the body and you get the radiation over a period of time.

The situation on food and water is not what it is purported to be. The contamination of food and water we think is one of the lesser problems, not one of the major problems of the post-attack environment. The solubility of fallout particles is not as great as thought a year or two ago. The recent results of the Nevada tests have improved the picture a little bit on this. For various reasons we think the uncontaminated water supply would be adequate to meet requirements provided there is some stored water strategically located so that people can stay under cover. The same thing with food; the amount of food that would be exposed to particles getting into the food is very small in terms of the inventory of processed and semi-processed foods in this country. If the particles got into the food you could wash it out. It would be

possible to harvest the crops in the field after a rain or two.

The really limiting factor on agriculture is the gamma radiation which would keep people from working the fields. We think that the denial of land for agricultural use might be as much as two months under rather bad conditions, and therefore we expect that most of the crops of the year of attack would not be lost; that the crops of the following year would be pretty well intact. This is assuming a lot of things, as you'll recognize. I'm not going to go into much detail on this, but the assumption is that we will not have petroleum products to move the tractors and other critical rolling stock. This is generally overplayed in our judgment. I think this is one of the problems that is at the root of this whole subject; that there is too quick an assumption on the part of scientists, industrialists, the top people in government and the top people in the military; that if we sustain damage of this type on the fallout map that you saw, then it is assumed that there will be such a breakdown in our highly organized interdependent society, that there is a question as to whether we can put it back together again.

Those responsible in government don't talk this way very much; many of them believe this. It's not the kind of problem you can react to from your gut. It is susceptible to study and analysis. Inadequate study has been made so far, but there is more and more of it accumulating. We recently pulled it all together to see what work has been done and what work remains to be done. There is quite a lot of work that has been done, but it doesn't get read. Research reports, as you know, tend to be read by the project officer and not his colleagues or superiors. So that, I don't think a real picture or real judgment as to what kind of world it might be after an attack has penetrated to the higher levels of government. In general, it seems to

me, the results of close work on specific parts of the problem have created a somewhat more optimistic picture than is generally assumed. The next chart, please.

This shows the population of the United States as 200 million people, looking ahead, broken into three parts. The bottom section is of people who are too close to ground zero to be saved by the kind of civil defense we are projecting. The top increment is of those people who would survive whether or not you had a shelter system. And in the middle you have the lifesaving potential of a fallout shelter system; that is, a full fallout shelter system - enough for the entire population, which is our objective.

Now, measured in terms of 1,000 to 10,000 megatons delivered on the United States, we think the center of the chart is a good place to do some planning; that this wouldn't be a bad guess of the capability of the late '60s. It's conceivable, as you go on to the right-hand side of the chart, it's a little hard to imagine a reason for the Soviet to build a capability that would surely deliver 10,000 megatons, or more, upon the United States, although this possibility is, of course, studied along with other possibilities. But this is a range/which we think is in the ball park.

This is a composite of many studies that have gone on; many computer runs and different types of different assumptions, but they are that category of attack which includes city targets. This is not the counterforce attack which would give a more optimistic picture. There are many less lives in the bottom increment killed, regardless of what you do, and there is a good deal larger lifesaving potential of the fallout shelter system. But the counterforce assumption is such a speculative one that is so controversial, that we haven't been using it much lately. So, this is an indis-

criminate attack against all kinds of targets.

To me, the important thing about this chart is that although in the center of the chart you have lost nearly half your people, in terms of survivors the inexpensive fallout shelter system that we are projecting doubles the number of survivors. And if you go up to the righthand part of the chart, assuming a very heavy attack, instead of getting a declining return from your fallout shelter system you have an increasing return, particularly increasing in relation to the total number of survivors, where you have two out of three people alive because of the fallout shelter system. If you can treble the number of your survivors it would have a tremendous impact on the question of whether the country could be knocked out. That, to me, is the whole point of this civil defense program. It's very hard to talk about it in these terms because the general public has been led to think of it, unfortunately, in terms of their own personal survival; their community survival; their family's survival; a hard subject for them to get interested in. I think it would be much better received if we succeeded in recasting those whole problem in terms of national survival. People are quite willing, once they're told what to do,to participate within reason in the defense of their country.

I think it's quite plain that a full fallout shelter system could make the difference between national survival and a knockout blow. This chart illustrates it only in terms of lives saved, but we think that the number of lives surviving the initial impact of the attack is the critical factor, not the very great difficulties that would come later. May we have the next chart, please?

Now, this is describing something of what we've been doing in the last

two years, but again, it's a description of the conditions we are dealing with as well. This is the results of the survey that we've undertaken, with the military engineers playing a very prominent part in this rather difficult task. You will see that we didn't know it, but we discovered that we have a very extensive shelter system to start with in this country. If you use all of the shelter space that we have, which we find to be enough for 104 million people - actually, it's larger than that; this is just the shelter space that has met our particular criteria - this shelter space in 125,000 buildings could be valued at about $4 billion because we've estimated $40 per person to create new shelter space on a national average. This puts you a long way ahead in a civil defense program. It permitted us to make the issue not whether we spend a lot of money, but whether cities and counties can organize themselves to use what they have. That's a lot harder to say no to.

This shelter space, as I've indicated, is 70% aboveground, about 15% in caves, mines and tunnels, and about 15% in basements. The part that is underground is generally the basements of very large buildings, so you get a degree of blast protection in the basements, caves, mines and tunnels, and you get a degree of fire resistance also in these areas. In general, this shelter space has better fire resistance than other buildings in the country, although it isn't designed for that purpose. So, you have a fringe benefit here of some protection against fire and blast that would be significant in the areas, we think, outside the radius of 12 pounds per square inch overpressure on down to about 1 pound per square inch. There is a great deal of the population who would be in such an area.

Therefore, to describe this system as simply fallout protection probably

understates it. Now, we've estimated that shelter space for 70 million people could be used here. We've discounted rather liberally because you can't find storage space in some buildings for the shelter supplies. Some of the building owners are not going to agree to make it available, etc. The progress we've made so far, as indicated in the third item there, is licenses permitting us to use the buildings; the donation of storage space for supplies without compensation implicit in the license covers 57,000 buildings which can take care of 52 million people.

We originally thought we might find shelter space for 50 million people. When we presented this to the Congress two years ago the reaction was, "Well, this is highly optimistic; we don't think you'll find anything like that much space"and we weren't sure that we would either. But, as you can see, we've already got that much space in the bag, so to speak, with the permission of the building owners to use it. So, there has been quite a significant step forward; more than is generally realized.

Also, the assumption two years ago was that most of the space would be in the downtown areas in the middle of target areas and therefore of marginal use; fallout wouldn't be the problem, it would be blast in these areas. We went ahead on the same assumption that SAC has provided fallout protection in its B-52 bases and some of them are going to survive. All the war gaming shows a few surviving bases - nobody knows which - but it's very important that they not be knocked out by fallout because of their value as recovery bases. The same is true of the cities; somewhat lower priority targets. That's why we went ahead two years ago. But we found that about half of the shelter space is outside of the downtown areas of the big cities. There is a far better distribution than we had anticipated, and we've also discovered

that by ventilating basements, which would increase the capacity of the basement areas by four or five times, that we can get a much better geographic distribution; we get further away from the heavily populated areas. Because, the statistics show that the opportunities for ventilating basements for some reason are more frequent in the smaller cities. That means, I think, that in the larger cities you already have ventilation in the basements of these high-rise buildings.

I'm referring now to the sixth item, which shows that 31 million additional spaces could be made available by ventilating basement areas. The average cost of this is about $12 per person per shelter. We plan to use the funds that we hope to get from Congress for developing new shelter space for this purpose as well as other low-cost improvements, but I think the ventilation of basements will take a great deal of the funds this first year because we're starting out looking for the cheap and easy ways to do the job in order to get going.

The last three points simply give you some idea of the size of this job. It has been a tremendous management undertaking, and it's worth noting that when we talk about whether we can or should build a blast shelter system in this country let's have a hard look first at what it takes to do the most obvious and simplest of all tasks, which it would appear the federal government could pretty well do itself, namely surveying and bringing into use existing fallout shelter space.

I'm not going to take your time over it, but I want to assure you that nobody had any idea of the immensity of the management task of bringing three levels of government and the owners of private buildings together on this simple matter of using what we have. Our tendency, I think, as the operators

of this program, I think, is to have a full appreciation of what is involved in doing some of these things, and to be a little skeptical about the big ideas that are very much under consideration in the various groups that have studied this problem. We think you have to walk before you run, on this subject. The next chart, please.

A shelter system is not much without many supporting activities to make it live; to make it into a working system. Prominent among the requirements is the matter of extensive training and education. This takes the more critical of the training requirement and projects it into the future. We need two things; we need special skills located in the right places so that people will be able to go into shelters, live in them, emerge from them, and know something about what to do. A good deal of training can be accomplished by the location of manuals and instructional material in shelters where people would have to stay under cover for some days and would need something to do with their mind. They would need something to pull them together into a working party, which is really what they become.

Now, the principal skills that we just can't do without are radiological monitoring and shelter management. We have to have that in each of these group shelters. And the figures you see are the projected numbers of people who have to be trained in this. The rate at which we propose to reach these numbers - the middle column "Projected Annual Rate" would be achieved by June of next year. We're using all 50 land-grant colleges, the big universities under contract, to get instructors trained. The Army is helping us in the training of radiological monitors, and we're at the stage now of concentrating on instructor training. We're just beginning to put out the final product.

Until we get the shelter managers trained in reasonably large numbers we're not pressing local officials to communicate this system to the public. We think that after that is accomplished, then we can begin to work on the details of how people will be allocated to shelters and how this whole system will be made meaningful to them so they can relate it to their families and their own personal plans. Therefore, we're in the most difficult period of all right now, where we are lying a little low until we have enough organization and development of the system at the local level to be able to talk about it intelligently. We think the mistake in the past in civil defense is that there has been too much talk and too little action. We are running the risk - perhaps the pendulum has swung a little the other way; we have deliberately encouraged local civil defense to keep a little quiet until we had something that stood up and made sense, and wouldn't have to be changed around a few months later before we start talking.

Now, the other job of training and education is to give all Americans some idea of what this is all about, and what they can do if we're under attack. We have two principal tools for this; what we call the "Adult Educational Program," which is largely run through the school systems of the country. And we're now moving into television. Mr. Hebert may have spoken about that. It became a very important part of our hearing, just between him and me at one point, because the non-discrimination clause in the education contracts came up. Television is a wonderful thing.

The other one is medical self-help which is moving very rapidly with the help of the professional medical people of this country who are very active in it on a voluntary basis. This is not a first aid course; it's adapted to the conditions of nuclear attack. It has attracted a very good response.

We think that it will result in a sprinkling of enough people who understand how to do something useful to save lives and to relieve suffering throughout the country;so that,there will be some of these people in every group within a year. We think that eventually there will be somebody in every family who will be trained in this way. By June we expect in these two categories to have 3.6 million people who have graduated from these courses. You see the five-year estimate of what's required. We used five years because we think it will take that long to complete the shelter system.

I'm not going to pause over some other elements of the program. We've doubled the extent of organization. We have to have civil defense organization in each city and in each county. In two years the number of cities and counties that are participating in this matching funds program where the federal government pays half the bill and has something to say about how they are organized and what they are doing; the number of those cities and counties has doubled.

The warning and communications system is being improved. It is inadequate. We're concentrating on two areas. One is an indoor warning system. You've heard about the near system, I'm sure, which is still moving successfully through the development stage. We're also hardening and protecting the radio broadcasting stations. About 192 are being protected now and this will increase in the next few years. So that, there is fallout protection for personnel, emergency stand-by power, and a shortwave radio link to back up their communications to the nearest local authority to give them the intelligence that they would be putting out over the air.

Our research program is several times the size of past research programs

and is a vitally important part of the program. The operating program is placed back into it every day in ways that make a lot of difference, and it's our insurance against technological change and obsolescence of our civil defense system in the years ahead. It rides on the back of research in the rest of the Defense Department. And in the Atomic Energy Commission, the Department of Agriculture and elsewhere, it's the first time that we've had in this country a competent group of enough size, with enough resources to see to it that the problem of what a nuclear attack would do to us and what we can do about it, is kept under surveillance in the long-term way that is characteristic of research.

Finally I want to mention the military support activities. We recognize the weakness of a structure of civil defense that is organized without a system of guidance and persuasion to state and local governments without any authority to tell them what to do, even in an emergency, which is the position we're in. Whether we can ever put some teeth into this through legislation, I don't know, but Mr. Hebert promises that we will take this up next year at his hearings. There are obvious improvements that can be made; however there are less obvious limitations on how you can correct this. I'm skeptical of the ability to federalize it and have an army of federal agents doing things that are now done by state and local governments. I think we do have to build on existing organization. We have to rely very heavily on people who are employed in public life at the local levels of government - the police, the firemen - having a second mission. By the same token we have to see to it that the military can, recognizing its second mission - which is a civil defense mission - all those military units that would be in this country in the event of a nuclear attack; treat it as a

reality. I don't think it's unfair to say that so far it's just a paper plan and it's quite a different paper plan in each of the Army areas. There has been no real attempt to pull it together and relate it to the civilian side of civil defense. We're in the process of doing that now.

A directive was put out by the Secretary and agreed to by the Joint Chiefs of Staff last April, which sets the policy and makes some assumptions which have the effect of upgrading the priority that would go into the training, allocation of personnel and equipment of both National Guard reserve and Regulars of all three services to carry out a mission which would be, in essence, an attempt to deal with the part of a nuclear disaster that might be defined as the fringe areas of blast, heat and fire effects around the target area.

We think about a third of the population is likely to be exposed to a 12-pounds per square inch, to 1-pound per square inch of over-pressures from blast, and fire-heat conditions. The casualties in these areas would be immense. There wouldn't be total destruction and it would be possible to do something about it, and we're now trying to define those areas and define the military units that might be in those areas, available, and work out with the Army which will act for the other two services a system whereby the military units that are there can prepare themselves to carry out that kind of a task. It's taken very seriously by General Wheeler, Secretary Vance, Secretary McNamara; and I'm confident that in the near future the general planning that's going on at that level will be translated into specific plans which will reach all units.

This, I think, will also constitute a command and control backup to this rather loose civil organization that I've referred to which cuts across

three levels of government. I belive it can change the character of civil defense in a very significant way if it's done right. It has a little dynamite in it. It could be easily misunderstood. It involves the National Guard and all of the politics of the National Guard and the feelings about up-grading or down-grading the National Guard. It involves the role of Mayors and Governors and their prerogatives. It involves the general attitude in this country that they like to have the military around when there is a war, but in peacetime they don't want them messing in their business. It's a loaded subject. Now, if it's handled intelligently, as I say, I think it can change the character of civil defense, upgrade the whole subject, make it appear more effective, and make it work better in an emergency. And I think that's what will happen.

Now, if I'm going to stick to the questions that I quickly laid out, I'll have to get into where we're going from here. Let me say first that the state of the legislation and the appropriation isn't quite as bad as the newspapers would have you believe - or that Albert Thomas would have you believe. Albert Thomas is the Chairman of the Appropriations Committee who said to the press that he had knocked out the appropriation for the authorizing bill which Mr. Hebert had successfully gotten through the House. He didn't, in fact, do that; it wasn't that issue.

The leadership in the House is prepared to react with vigor on this question of appropriating the funds that were authorized for a shelter system. They deliberately said nothing when the appropriation bill came on the Floor which addressed itself to the rest of the project - the current program. The budget for the current program rather than the new program. It would have been subject to a point of order on the House because the

Senate hasn't yet authorized that money. That's why there was a silence and that's why the press represented this as a reversal within the course of a month on the part of the House. It wasn't a reversal. We've still to see the outcome in the House, and a great deal depends on what the Senate does.

The legislation that we're seeking here is basically to establish a firm policy that federal agencies, including the military services, will be required as a matter of law to include shelter space in their buildings, both new buildings and modification of existing buildings. The way the law works is that the Office of Civil Defense - my office - would have the responsibility of exempting projects where it appears uneconomical or where the location of the buildings is such that there's no real need for the shelter space. But in the absence of an exemption from the people in Civil Defense the various federal agencies and services would be required to put in shelter space whether they like it or not.

This would, for the first time, I think, put us in the position of rapidly setting an example that would make some sense to the rest of the country. As you can recognize, it's almost impossible to give any leadership to a nationwide shelter program if the federal government is neglecting to do the things that it is urging others to do.

There is about $15.6 million for that purpose, for existing buildings, and a few million more for new construction at stake. The other major part of the legislation is $175 million which would be to assist communities to start meeting the shelter deficiency which has now been defined with great precision, by the data which comes out of the survey. Each community in the country knows where it needs shelter space, and how much it already has. We

propose to offer $2½ per square foot or $25 per person sheltered, of federal grant money to assist communities in meeting their deficiencies.

The purpose this year is to locate the lowest-cost opportunities to create the new shelter space. That's why I said earlier that ventilation equipment would be a large part of it. It's a little bit the theory of the survey - let's see how far we can go and what kind of a system is created if we stick to the low-cost methods first. Then we can better define the gap that remains, which will be the more expensive part of it. By that time we may have different ideas about how to finance it, on the basis of the experience we have in this offer we're proposing to make this year; and conceivably, if we decide it's necessary to upgrade the criteria for shelters there would be time to do it where we have to get into more of a job of construction than we anticipate this year.

This year it's still more using what we have, but adapting it slightly. Now, one more current program that I thought worthy of mention is the damage assessment activity. We're setting up a computer programming and operating facility to do two things; to analyze the vulnerability of our population and resources, and to assess the damage after an attack. This is a portrayal of the types of information which we have to reduce to computer tapes in order to permit us to make quick decisions under emergency conditions, and also to plan ahead for a better organization of our resources to meet a nuclear attack.

In the lower righthand column you see a list of the type of emergency decisions which would be facilitated by this system of quick response intelligence that would be accumulated during peacetime and then filled in in an actual emergency, so you can know what you're doing. I think this is

able to be effectively tied into comparable systems of command and control in the military to strengthen the military capability,and their efforts in the same direction can strengthen ours. I see opportunities to further marry civil defense and military defense on this subject. The next slide, please.

That one speaks for itself; we can go on to the next one. The next two slides I won't talk about; just flash them quickly; are the two programs that require the legislation that I just referred to - shelter and federal buildings. It's broken down to where you can see the importance of ventilation improvements as compared to structural changes. And also, it's broken down so you can compare the military and civilian agencies. You'll see that the military potential in this is almost half the total of the federal government. The next slide.

We seem to have missed the one on shelter development. The other one simply shows you the source of the shelter development state, showing the types of changes in buildings which we anticipate would result from the application of the $175 million that I referred to.

Now, I raised the question of why our objective is not more ambitious and why we're not making faster progress. Your predecessor class at the Industrial College did a very good job. A committee, I believe it was, did an analysis of the civil defense problem and came to the conclusion which many others have come to, that we way understated the problem; that our proposed solution is entirely inadequate. It in effect called for a totally federalized system of organization and an expenditure of $25 billion over a period of ten years at $2½ billion a year.

There are other studies pointing in the same direction. There is one

of a group of scientists under the auspices of the National Academy of Sciences, where somewhat similar thinking is emerging. It's hard, I think, to explain why we started not to bite off that much of the problem, initially, and why we are sticking rather stubbornly to the moderate-type civil defense program at this time. Let me read to you the words of Clarence Cannon who sits astride all the federal appropriations. This was the week before last. I do this not just because it's Cannon, because he wouldn't speak this way if he didn't know he was speaking for a great many Americans. His point is, none of these shelters will ever be needed and he expressed it this way:

"They will never be needed because there will never be another world war. With modern weapons an international war amounts to international suicide. Most of the people would die and most of our cities would disintegrate within three days after hostilities started. In the meantime the nations of the world have entered into treaties, to discontinue air-testing of nuclear agents. Modern nuclear bombs incinerate in white heat, everything within 50 miles; they exhaust all oxygen."

Now, the point is that you have to accept the attitudes that are prevalent in this country. And I wouldn't say just for the public - the various leadership - but throughout the country. Actually, I think the public is more willing to accept this kind of thing. If they're told just what to do, then the people who manage industry - the government, etc.; the leader-management element in the country, and the military - the senior military people have had this problem before them now for about ten years. It has been well known that any nuclear attack would be accompanied by widespread fallout conditions.

Military personnel in the Continental United States are virtually unprotected. It would not have been a very expensive thing if it were done over a period of years to have protected them. I'm not now talking about using military buildings for civilian community shelters; I'm talking about radiation detection equipment and supplies that would permit people to stay under cover; maybe sand-bagging buildings to break up the radiation - all kinds of rather low-cost measures that could have been taken to see to it that the Second Army out here at Fort Meade might survive in case it was needed somewhere. The chances of its surviving today are very slight.

I don't think there is any disagreement that the eastern section of the country would be covered by lethal fallout conditions almost certainly in the event of a nuclear attack upon the United States. So, there is a rather deep question here as to why the responsible people, as well as the general public, persist in turning away from the changing facts of life in modern warfare as it applies to priorities, programs, budgets and things that we have to do.

My point is that you have to recognize attitudes as much a part of your problem as budgets, as the techniques of constructing buildings; any of the hard facts you deal with. I am personally convinced that there wouldn't be a hope in hell of getting an ambitious program which imposes drastically on peacetime life in this country, through Congress, through the Executive Branch, through the state and local governments insofar as they have to participate. When you talk about a deep shelter program in a city you're talking about moving gas mains out of the way and uprooting the whole city. You have to go underground in an archaic structure which has grown up by hit or miss. You have new opportunities coming up today as you get into urban redevelop-

ment, urban renewal, etc., but you would still have vast problems of organization and persuasion regardless of how much teeth you put into what law you may be talking about.

I don't think this country can do this. No other country has really done it except possibly the Swedes; and I would say that really, no other country has done it. Unless we work up to it; unless these kinds of measures became the background scenery of the nuclear age. I think we could look ahead to a time in the '70s when you can begin doing some of these things. In the meantime it's absolutely vital that we succeed and do well in the walking stage, these first steps that we're undertaking.

I want to make a few more remarks here. I want to call to your attention the reasons why I think the priority is going to be sustained; why civil defense will be an increasingly serious subject. Some of this is obvious. I want to emphasize what I think may be the less obvious parts of it, namely the ways in which civil defense ties into our national security posture. I see five ways.

One, it improves the option; the flexibility. Second, it helps to maintain the stabilizing influence that our military programs have during a period of detente or arms control. Third, it achieves the balance that we talk so much about. It provides something which corrects a major imbalance; put it that way; in an otherwise fairly well-balanced national security program. Fourth, the military activities depend on it, and it depends on the military activities. I'll refer back to these and make it a little clearer. Fifth, I think that those who say it's an important of the deterrent are right, and those who say it isn't, are wrong. And I have to include the President in the last remark because he started out in his civil defense speech saying

it was no part of the deterrent. He had a reason for doing it. I think he may have been misunderstood in his intentions when he spoke about this.

Now, going back to the options. You all know that in the last three years one of the major changes in the defense picture that this Administration has been shooting for - and I think, successfully - is to retain options; introduce flexibility so that we can meet different levels and types of threat. You've seen this in the buildup of conventional war capability, a protected second strike capability; a good deal of money going into a control system, so that the highest level of authority in the government can keep control of a mounting crisis and the early stages of a nuclear war. The hot telephone is the current popular example of this, but I think you know there is a large sum of money going into this kind of thing in many ways.

The whole concept of the strategy of controlled nuclear war, which I prefer to call the option to stop a war; I don't think there's any question that we want to have that option. If there's a way to stop a war in terms acceptable to us we want to have that and not let the option be taken away from us; the control of the population in a crisis; the reduction of panic; being able to send aggressive messages to an enemy at a time when you need to do that; having a base from which you can rapidly step up our defense achievement, a cheap long-term return; that kind of a program all contributes to the options.

Now, I may seem a little cryptic here perhaps. I think you can see what I mean about the option to stop a war. If you have 50 million people overdosed with radiation, doomed to die two weeks later, it's difficult for the President to make the decisions which he might otherwise make which would check a nuclear war if it was plain to him and his advisors that this

was the best thing to do. In other words, the damage control involved in a fallout shelter oriented civil defense system does help retain the option of the opportunity to control a nuclear war.

The aggressive messages that I speak of might be, let's say we have shelter supplies in local warehouses to back up the shelter supplies in shelters. At some point we have to move those into place. There are dozens of last minute steps. If we assume that we have time to take these steps they would strengthen our capacity to absorb a nuclear blow. Now, there may be an inhibition against taking these steps. On the other hand there may be an opportunity; let's say in the Cuban situation if we were to have taken the step, let's say, of encouraging the Governors to inform their people that shelter space that had been found, hadn't been marked and hadn't been licensed would nonetheless be available to people if need be, and the addresses published throughout the country, this would have carried a message abroad which would have contributed to the other impressions that were being created in other ways. There are many ways of using a civil defense program in a mounting crisis.

When I say it's a base to step up defense I simply mean that it takes a lot of time to provide minimal shelter protection around the country. You can do it in a way by emphasizing a good deal of survey work, planning and identification of last-minute expedients to improve shielding. You can do this in a way which gives you an opportunity to change your defensive posture rather quickly in a mounting crisis. These are all contributions to the idea of maintaining flexibility of options which I see in our civil defense program.

I think you probably get my point about the detente, the period of

lessening tensions. If it goes so far as to actually curtail the development of our offensive striking power, check it, or even cut it back - if that should happen - it throws a new emphasis on the whole question of our defenses against nuclear attack. It throws a new emphasis on the possibility of small nuclear attacks, either from the enemy we expect or the enemy we don't expect; small powers that haven't been playing ball in the arrangements that are being made. We would have greater competence in pursuing these opportunities to maintain peace through arms control measures if we had a better defense in this country. And this comment applies to our weapons as well as civil defense.

It seems to me clear that one of the difficulties of checking the arms race is that it has an unstabilizing effect as you find ways to check it, and that the improvement of our defensive capability, including civil defense, tends to offset that.

The way in which the military mission depends on civil defense is clear when you include in the military mission the protection of the civilian population through direct measures of the kind which we are now working on and which I've already referred to. You can't - that is, the military - can't do anything meaningful unless there is a civilian organization to work with and unless there is a widespread shelter system to make use of. How do you call up the National Guard? How do you call up the reserves? Where do they go? Do they come rushing into an unprotected assembly area when they have shelter space near where they live? Probably not. You do need to tie a civilian shelter system and civilian organization together with any plan for military support for the civilian population. And I think this goes further; it applies also to the military missions of logistics and even air

defense. I think there's no question that these military missions could be more effectively performed in an environment of civilian protection to some degree, with people knowing what to do, where to go, and how to behave.

On the question of deterrence, I may simply say that the big problem of deterrence, as I see it, is whether it's a deterrent or a bluff. If you have neglected your defenses it's a bluff. You have to substitute, sometimes, rather unfortunate measures to make the bluff seem real. We do have a situation now where our defenses are comparatively neglected, for reasons that may be beyond our control because we just haven't the technology to catch up with the offense. We do have on way of correcting this situation slightly, and that is through perfecting our civil defense capability.

If this is done I think it carries a message to the enemy and our allies which contributes to the deterrent. I would say another way of saying it is that the President has to have a political base from which he can operate firmly and effectively. If his adversaries think he doesn't have that political base to operate from they'll take greater chances. The fact that the American public has faced up to this problem of nuclear attack and absorbed the idea that it could happen, and are preparing to meet it in some way, whether it's effective or ineffective doesn't matter; it still speaks to the firmness of the position from which the President operates.

I think it's also clear that insofar as a knockout blow may be an essential part of any military planning of an enemy, any degree of civil defense preparation makes this somewhat more speculative and therefore contributes to the deterrent.

And I think, finally, if you are one who paints one of these scenarios of where the enemy is seeking a quick surrender prospect by striking hard

at civilian life, doing inestimable damage and then seeking to force some sort of negotiated arrangement, to have a civil defense program which does something to mitigate that blow makes the prospect of that kind of military undertaking rather unpredictable and therefore less likely. So, I agree with General Wheeler, General LeMay and General Lemnitzer, the three people over the last two years, who have come out loud and clear on the importance of civil defense as an element in our deterrent. I think this is going to be the prevailing view.

I think the President was trying to say it isn't an element in the arms race and that's why he said it wasn't a deterrent. He said this because if it is an element in the arms race; if we're going to start a powerful civil defense program, they're going to have to match it or overcome it, it raises all sorts of problems that are difficult to handle, and it didn't seem necessary to raise those problems with the kind of moderate program that has been under consideration.

I'll leave these thoughts with you about the relationship of civil defense to military strategy. Military defense, I think, is an area which requires more thought and more work, and I hope some of you will perhaps contribute to that.

Thank you very much.

MR. MUNCY: Mr. Secretary, on behalf of both colleges, I thank you very much for a very comprehensive discussion.