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GENERAL FILES

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Civil Defense and Atomic Warfare

a selected reading list

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FEDERAL CIVIL DEFENSE ADMINISTRATION

Before we get into one of our major headaches, I think we are all justified in looking back over the period since January 1st and checking off some solid accomplishments. None of the following occurs to me, in no particular order of importance:

- We staged the first ever joint I-90 trip from Seattle which was one of the finest examples of teamwork in the national, state and Federal policies, as well as with our Mexican counterparts of the border, that I could recall.
- The Washington Conference of Mayors, following its second one for the Governors, produced a consensus of 500 local mayors and support for our objectives. Mayor Ogden, in particular, has enjoyed.
- We had a highly successful meeting of the Native American Advisory Committee last fall and are looking forward to another next month. Incidentally, our conductor of our first trip, Mrs. Jeanne and Miller of San Fran., has recently joined our staff. She is here today and will shortly be traveling throughout the Regions and states. This young girl, firmly established in her field, is charming. She is a born leader, full of enthusiasm. Locally, are energetic and can do a great deal to help us to enlist their support.
- Next in our list of accomplishments little to be mentioned is the increase in appropriations provided by Congress for the current fiscal year. It goes along with the statement made earlier

year in which FORTIS completed its first year of operation. However, disappointment was still evident on the part of some individuals such as medical supply firms, the majority of whom felt Congress was helpful and very generous to us.

The release of the post nuclear fallout medical operational data which it contained, I think, has been of great value in our planning and in achieving a clearer public understanding of the threat we face. Certainly the situation is not critical, either favorable or critical, as between now and January 1963. In the civil defense problem, however, the situation is not so clear. It is an intelligent and appropriate question to ask how much money the current fiscal year budget will have available to meet the difficulties under which the program is operating. The current issue of the Bulletin of the Atomic Bomb, October 1962, is well worth reading.

During the past several months, the Bureau of Civil Defense with the approval of the Director, has engaged other Federal agencies to take over certain civil defense responsibilities which, by the nature of their function, they were not originally fitted to do. This of course, is a reasonable procedure for delegation of civil defense authority and functions.

With the cooperation of the State of Wisconsin, the traffic control center at the University of Wisconsin at Milwaukee, a preliminary report on this function has been completed.

- Another milestone will be part year air defense evaluation tests which have been held in a number of cities.
- During the past year we have, as you know, held a series of working meetings with small groups of your gentlemen, and we at least found to be highly beneficial.
- We have enjoyed increasingly closer working relationships, both with the Canadian Government and members of the N.F. countries and have held a number of conferences with the civilian defense officials of these governments, both in the United States and abroad.
- The new operation "Project Mercury" is now in operation which, on the whole, has worked out very well so far.
- On the instant I must, reluctantly, cancel my meeting with a group of some 200 leaders, sponsored by the Michigan Chamber of Commerce last June. I think an early meeting and other meetings at the local level may very likely receive a better support on the part of the public and industry, business firms, plants and community civil defense.
- In our community we have therefore, as you know, organized, with an average donation from each family, a shake down night during which all families in the area are going to be informed of the emergency conditions, both for the civil defense and the military.
- Within the last month I have had an even greater acceptance of civil defense among my constituents, in fact, defense and civil defense is being fed into every community.

• Are you know we are looking forward to another open test shot next spring -- this time with wider participation by private industry in the testing of various materials and installations under atomic blast, test and evaluation.

• Finally, I think we will take some satisfaction in the more widespread public awareness of both the need for civil defense and what the individual American should know in order to protect himself and his family. This is clearly indicated in the results of the latest public opinion survey by the University of Michigan Research Center. Copies of this study are being made available and a digest of its conclusions is forthcoming. Dr. George K. Stigler, director of the Survey of Public Opinion,

is available to speak

on this subject. I hope you will be able to see him. Both can take some satisfaction in the progress of our work in our activities. I want to talk with you at length about the ~~affiliation~~ ~~affiliation~~ about this. I am not at all satisfied, however, about it. We have research in the area, particularly in plutonium production, but comparatively little can be said of the other subjects of interest, and not for security reasons but because the scientific literature is so sparse in seeking out areas where some effort has been involved.

Nevertheless, an effort has been made to delineate the following lines about the consideration of which you should bear in mind when you take.

Just last week in Houston, Texas, Dr. Ernest R. Bugher, Director of the Division of Biology and Medicine at the University of Texas, made public those significant findings from his work:

"When the detonation is complete the fireball goes down to ground, great amounts of earth and dirt hit the ground, and a fireball, resulting in coarse, highly radioactive particles which tend to fall rapidly while being carried along by the wind. At the center, there is an area of highly radioactive fallout. The first few feet of intensity may be lethal following an exposure of only a few minutes. The dimensions and shape are determined by the stability of the fireball patterns, but characteristic of the fireball are a central area of highest contamination, a zone of intermediate radiation, and a wind and cross-wind contaminated zone. Drifted downwind, it is less spectacular in intensity."

"In general," Dr. Bugher continues, "the probable 50% lethality figures of 50% lethality at a proximity of 0 meters, and 50% gamma radiation from the bomb till the time of particle fall, indicate of local radioactive fallout in the vicinity of a nuclear explosion on the surface, about one-half of the total fallout will be delivered within the first minute. Therefore, prompt sheltering to limit such exposure must therefore be available, possibly by 300 feet, to be effective.

"We must face the tremendous potentialities of radiation in atomic warfare. Not only must we be prepared for the effects of

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casualties on a scale which I fear would be very heavy. It is important to recognize that these secondary qualities become dominant and multiplied effects to deny the enemy's power over us. In this case, the effects of large areas outside the zone of immediate destruction are most acute.

Now what does this mean to us in terms of survival defense planning?

One obvious conclusion from Mr. Butler's report is which we should have realized all along. We must be ought to right our course about wind currents. I think you will find the chart in here to be extremely helpful in this regard. Although data presented is not sufficient to completely determine the direction of wind currents, it is a good start and planning.

The record to date is very impressive that the wind direction is nothing new, nor are we likely to see significant changes in the near future.

Mr. Butler suggests, and I quote, "of the numerous and varied diffused sources of the winds, the following conditions have been particularly distinctive:

1. That the general direction of the winds has been, and will continue to be, from the southwest, and will remain so for the next few years.
2. That more intense than normal winds will occur during the affected period, especially in September, October, November, December, January, February, and early March.
3. That the general direction of the winds will be from the southwest and will continue to be from the southwest for the next few years.

The record to date is very impressive that the wind direction is nothing new, nor are we likely to see significant changes in the near future.

Secondly, the possibility of nuclear explosion should be considered, particularly from the electrical, radio, magnetic fields of the wind from the assumed point of impact.

I suspect that these two factors will keep us safe long enough until the scientists are able to give us more data for our calculations.

Finally, we should bear in mind, when considering shelter against the radiation hazard, that almost any kind of shelter can reduce the dose appreciably.

An ordinary frame house of the size of mine, and similar to it, for instance, will afford some protection by means of its walls which will provide ever more. A simple wall around a pillar with a corrugated metal cover will give virtually complete protection from high doses.

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Now at this point let me quote another article from the same issue of the Bulletin of the Atomic Scientists I mentioned earlier. It is an article of seeming to break our behavior, the last article written by Dr. Edward Teller, let me quote one sentence.

In concluding of the article Dr. Edward Teller says: "In the past years, the article declares that we must learn to live in peace. This shows clearly that the man who wrote it is very honest. He does not like to take account of the difficulties involved in his conclusions and notes,

Now, I'll file "Bring that line of fire" for a minute. It is certain that as far as you can get from the local level you hear the same type of criticism that we do at this.

"People will say 'You don't know what's in your mind what you want us to do.' What's in my mind, you tell us to duck and cover. No, it's something. I think it'll be something else."

You've heard that line of talk as many times. And of course you explain patiently to them just isn't that so? After all, and that if they're afraid of the shifting winds, then it's best to shoot off your mouth. You might write it down, but don't say about it.

But the now, I'd like to emphasize just for a minute, let's consider these elements first:

First -- the subject of offensive weapons is a very sensitive in the history of man. We've known how important peace is, involved in supplement or replace existing ones. It would be wise to respect that. In this atmosphere, our leadership will be asked to come up with new devices of peace, war, life, death.

Second -- I think it's important that the military and the civil life drive to "whole" approach. This means that we must have a war, it could be far more effective if we could have a war and a prorogation that could alternate, because until you do that, you're committed. For civil defense to work, you must be able to live, surviving offensive weapons, and also protection. So it would be liable itself to be part of a whole, whole package, which is the basis of the civil orders.

Third -- Civil defense while it must be dynamic & flexible, actually has only two dimensions in the defense of people against nuclear attack -- evacuation and shelter. These factors can, however, be used in an almost infinite variety of combinations to meet both the nature of the threat and the characteristics of the community.

Fourth - Against the major types of terrorist attacks, with an assumed warning time of 15 minutes or less, the basic defense tactic was on shelter, though evacuation before an attack on an attack of the sick, aged and disabled was included if time permitted.

Then the advent of the nuclear weapon increased the potential damage and loss of life to unthinkable proportions. This caused a shift to planning for mass protection of population, and so the time when longer warning would be available for shelter arrangements became for those who remained behind to more essential facilities. In such circumstances evacuation was not considered realizable.

What now confronts us is a responsibility which falls upon each community to provide the most effective methods of defense that can be against the most threatening weapons and factors, but the challenge must be difficult.

So I want to make your assignment a practical one. You will have already enough information available, and I will endeavor to give you a good start on local planning. But this is a difficult problem. There are some answers we still don't know, so perhaps that is why civil defense action must be conducted by trial and error.

What I want to propose is this. That you gentlemen form a small committee of your own experts ~~who are "well" pleased~~, to sit down with us and evaluate this classification, as rapidly as it can be made available to us by AFS & the AFM, from the standpoint of local civil defense planning.

I would suggest that as far as possible you select men representing in their experience different sections of the country and different local operating conditions.

I think this approach to the job will be one of the most challenging and complex problems we have yet been confronted with, is in the best tradition of our Departmental Civil Defense. The basis of civil defense.

In these three days you will find all those individuals who are here willing or anxious to cooperate with you in your project. They have, and to lend a great assistance if it is within our power to do so. Good luck to you in the important task you have ahead.