WAR PRODUCTION IN FUTURE EMERGENCIES AND RECONVERSION TO A PEACETIME ECONOMY

27 January 1958

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COLONEL KUMPE: Admiral Clark and other Gentlemen: Planning for the next emergency is extremely complicated; and probably planning in connection with industry, conversion and reconversion, is as complicated as our military planning. We have had experience in conversion and reconversion in industry before and after World War I and World War II and the Korean so-called incident. We do not know, however, that the lessons we have learned from those experiences can be applied to the next emergency.

Our speaker today has an excellent background for telling what is going on in the way of this planning. He had 31 years with industry at the General Electric Company and with the Owens-Corning Fiberglas Corporation. His service with the Government included three years during World War II with the War Production Board. He served at the National Security Resources Board advising them. And during the Korean incident he served with the National Production Authority. At present, in addition to his corporate responsibilities, he is on two advisory committees to the Office of Defense Mobilization--the Mobilization Planning Advisory Committee and the Citizens' Committee for Executive Reserves.

It's a very great pleasure to welcome back to this platform the Executive Director of Government Services of the Owens-Corning Fiberglas Corporation, Mr. Walter C. Skuce.

MR. SKUCE: Thank you very much, Colonel Kumpe.

Admiral Clark, Members of the Faculty, Students, and Guests: I am very happy to be here and to have the opportunity to express my views on war production in future emergencies and reconversion to a peacetime economy. I always welcome the opportunity to participate in the activities of the Industrial College, and certainly appreciate the occasion to meet with this year's class.

The subject that has been assigned to me is so broad that I realize that many of the problems that it encompasses can only be touched on in my talk today. Your faculty has selected other speakers who will

expand on subjects related to my talk today. They will develop more fully several important aspects of our subject.

Our planning for war production must encompass all types of possible future emergencies, from so-called brush wars to full-scale nuclear war. The United States will not initiate a war; so it would be folly to organize for only one type of emergency. We must be prepared for any kind of emergency that our enemies might create. The increasing peril from the Communist bloc has caused us to engage in a high level of military production since Korea. As a result we have developed a munitions industry, and we have an impressive inventory of war materiel in readiness.

A comparison between the United States' position now and our position when the President declared a state of national emergency in World War II and for the Korean War is certainly a starting consideration. I have drawn a comparison of our present state of industrial and military preparedness to our position prior to World War II and Korea. Certainly we have a much greater force in being than we had just preceding those two emergencies. Yes, much greater force in trained manpower, military equipment, military production, and industrial capacity. If we had a Korean type war or a World War II type of emergency today, we would be much better prepared to handle war production requirements than we were in 1941 or at the time of the Korean War.

Here are a few statistics: As of 7 December 1941, we had 2,109,377 military personnel on active duty. As of 30 June 1950, we had 1,460,261. These figures compare with 2,795,798 on active duty as of 30 June 1957. So we have one-third more military personnel on active duty than in 1941 and almost twice as many as in 1950.

Here are some statistics on war production expenditures prior to World War II and Korea versus the present: In 1941 the fiscal budget for the military was approximately $13 billion and in 1951 the fiscal budget for the military was approximately $48 billion. It is of interest to note that in 1951, with a fiscal budget of $48 billion, the actual dollar outlay was only $20 billion. In comparison with these levels of war production activity preceding World War II and Korea, in 1957 the fiscal budget for the military was $37 billion and actual expenditures $38 billion.

It is estimated that the rate of expenditures in fiscal 1958 will be close to the Korean War peak rate of $43.7 billion, which was reached in 1953, and over 40 percent greater than in 1942.

It is important to our considerations today that we recognize that this country has developed a munitions industry of large capabilities. This industry is not working at full capacity, which would be inadvisable even if money were appropriated for this purpose, because of the constant improvement in design of military equipment. It is, however, constantly engaged in the design of new and improved weapon systems and the production equipment to make them.

Many other weapons and expendable items which are not currently in production have been designed and tested, and the design and production data are available in the event of an emergency.

Of great significance, our present inventory of military equipment is at tremendous strength, with a large arsenal of new weapons, with more warships than at any time in the last 10 years, and with over 42,000 active aircraft. Furthermore, through efforts of our allies and our aid to them, an additional large supporting force is also in existence. In the last eight years we have spent $17 billion for direct military assistance to our allies, and they have spent $107 billion. Through this $17 billion we have helped equip a free world strength of 200 divisions of friendly military forces. They have about 27,000 aircraft and 2,500 combatant naval vessels. Along with this, we have in this country an inventory of stockpiled critical materials approaching $7 billion.

We also have trained executive reservists who can be called to active duty and who have been trained in carrying on the management of emergency agencies.

Truly then, this is a great force in being for meeting a war emergency if it was the World War II type or the Korean type of war. It would be a great retaliatory force if the Soviet Union were foolish enough to risk a massive nuclear attack on continental United States.

How, then should we best prepare for war production in future emergencies?

At our present rate of production of war materiel (exceeded only in the fighting stages of World War II), we are improving our position to wage war with weapons of great destructive power and in such

quantities that neither we nor our enemies want the horror of all-out war. Furthermore, it is reasonable to expect that both Soviet Russia and the West will continue their development of products and production of weapons to a point that an attack by the Soviet Union would be a growing risk of great proportions.

This would dictate that we develop the capability of fighting limited wars, but that we maintain the strength to retaliate with great force if the Soviet Union were ever reckless enough to attack us on an all-out nuclear basis.

How, then, do we prepare and organize for such a war production emergency and an organization that would fit all of these contingencies?

It seems to me that we have no choice but to organize on a basis that will meet either the Korean type, the World War II type, or the nuclear type of conflict. It is entirely probable that if we organized for either the Korean type or World War II type of war, these might phase into an all-out nuclear attack; and unless we were organized for this type of emergency, we would jeopardize our ability to survive.

In 1946 Public Law 520 initiated the present stockpiling program for the accumulation of critical materials for national security purposes. This was an amendment of Public Law 117, approved by Congress in 1939. This accumulation of critical materials has continued to date. I am sure it is a comfort that we have this supply of strategic materials, particularly if we are faced with a World War II or Korean type of emergency. It would be of doubtful use in the event of a nuclear attack.

Recently, Mr. Gordon Gray organized a highly competent committee to consider the present stockpiling program and to make recommendations for future action.

If we were faced with a nuclear type of war, we would likely find that our stockpile of materials would have little relation to our needs. It is my belief that in addition to critical industrial materials, there should be a consideration of stockpiling needs of survival items. If we suffered a nuclear attack, there would be a tremendous need for survival items to save lives and to reconstruct essential utilities to help us restore living communities and retaliatory force.

It might be argued that nobody can foresee the kind of materials and supplies that should be stockpiled for the chaotic situation that

would exist in the event of a nuclear attack on the United States. It must be recognized, however, that the demands for medical supplies, food, and other items of bare necessity must be in being. Obviously, there would be inadequate time to produce the supplies required after such an attack. Drug supplies like penicillin, ether, morphine, sterilized bandages, blood donor sets, and a legion of other items would be required in large quantities. They would have to be available for immediate use if they were to be of any use in saving lives, reducing suffering, and for restoration of order. Obviously, stockpiles of survival items would have to be strategically located as a precaution against probable stockpile losses suffered by nuclear attack on the inventories so provided.

It is hoped that this new Stockpile Committee will offer recommendations concerning actions to be taken to adjust our stockpile policy to meet the needs of this nuclear age. Presumably they will give consideration to the geographical locations of production facilities that produce certain critical components and machinery and recommend precautionary actions we should take for expediting the restoration of order in the event of attack. Consideration should be given to the stockpiling of such items to speed up reconstruction after attack so that we can get living communities organized that are ready to take on the job of retaliation.

If a Korean type war were to break out and a national emergency were declared, orders would be issued by the President and Congress establishing emergency agencies, one of which would be charged with the responsibility for handling war production. The conversion to war production for such limited action would require a modest buildup of our present rate of war production without fully discontinuing production of civilian durable goods.

While it seems highly improbable that a World War II type of conflict would ever be experienced again, the production planning for this type of operation should be fully developed. It is really an extension of the Korean type operation to a point where civilian production must be further reduced and probably discontinued.

It is of interest to note that preceding World War II the reduction of civilian production was a gradual operation timed to the growth of increasing military needs. In the year 1941, passenger car domestic sales totaled 3.681 million units. Monthly production was gradually reduced in 1941 until December, which is basically the low month of

the year at any rate, when the production rate was 180,000 units. Passenger car production was stopped on 1 February 1942. During 1941, the military were issuing contracts to prime contractors and these contracts carried priority status. By 1 February 1942, the military demands and defense-supported production requirements were such that no further civilian production of consumer durable goods could be authorized.

For conversion to war production for emergencies of the Korean or World War II type, we should be able to do a more orderly job than in World War II or the Korean War. With the high level of activity in munitions development and production for the last six years, we have an impressive capacity for war production. Of course it is not balanced for full-scale war production and the needs of actual combat. Many items are designed, but not in production. Other items have been designed and prototypes built, but there are no production facilities.

An orderly conversion from civilian to military production in an emergency is desirable and possible. The time required to place military orders, secure materials and components for expanded military production, and to man added shifts in military plants would take about three months. Based on our experience in World War II, the time required to retool and convert a civilian product plant to a military product plant would be 12 to 18 months. This could be shortened in the future if we can make our mass-production tooling more flexible in design. I'll cover this later in my talk, because I think it is our objective that we should all think about and help develop. Part of this transition time, these 18 months, would consist of finishing and assembling raw stocks and work in process in the assembly plants as a means of clearing out the plants and keeping the working forces intact for the planned military production.

Many plants, of course, have little difficulty with conversion, because military items can be made on the same production facilities with little change in the normal functioning of the plant.

By and large, with our present large munitions industry and with our large industrial base, we would have a strong base on which to build. Conversion to full war production then would require the following steps:

1. Issue contracts to prime contractors based on existing military planning with American industry. As you probably know, there is a Production Allocation Program in operation that has resulted in armed

services procurement planning officers working with plant management to develop each plant's wartime potential. These teams develop tentative mobilization production schedules which provide the procurement services with the information they need to procure items necessary for essential civilian or military use in times of national emergency. These firms have their abilities to produce established and recorded. They are registered as planned wartime producers on whom contracts can be placed to meet the needs of any national emergency. When contracts are issued to prime contractors, they should be accompanied with production schedules and allocation of material authority and preferential status under a quantitative control system, such as DMS or CMP, which Mr. William Truppner will discuss with you in a subsequent meeting.

2. Expand production rates in existing plants by increasing shifts and/or hours worked.

3. Construct facilities to build new war materiel, to remove bottlenecks, and to expand basic material and component production.

4. Freeze all civilian production schedules at present levels and apply rigid inventory restrictions on raw materials and in-process stocks of manufacturers of peacetime products.

5. Help manufacturers to convert in an orderly way by recognizing the need to clean out civilian production plants by the assembly and stocking or shipping of the finished goods.

Many so-called civilian items, such as automobiles, home appliances, etc., will be needed in some quantity for the duration. These can be kept in finished stocks and, if necessary, rationed during the emergency period.

Companies and plants must have time to complete end items from materials and components in stock. Balanced input of materials and components must be planned, so that when they are processed and assembled, the plant is ready to convert to production of needed war materiel. It takes time to get orders placed for military items, to get the needed machinery, to change the plant layout, and to engineer new products if necessary. This time will probably equal or exceed the manufacturing cycle of goods on order and in process for civilian items. When a company sees the need for converting and has accepted military contracts, it can plan on orderly conversion and carry it through.

6. Orderly conversion is important, as it keeps production forces as working entities.

There were several instances in World War II and the Korean War where we didn't gear our action in such a way that we could keep the labor forces where we wanted them when we converted plants to make military items. The force dispersed to other places. If we don't keep forces in being as entities, we complicate our conversion job.

7. Reduce authorizations of civilian production through CMP or DMS.

I am sure Mr. Truppner will point out that affirmative action through a quantititative control system like CMP or DMS can be affirmative at a much lower rate of production than demand would justify.

8. Issue limitation orders and materials orders. The limitation orders advise manufacturers of permitted rates of production as related to a base period generally, and materials orders advise how manufacturers must conserve materials or secure material supplies in support of their production schedules granted through DMS or CMP.

9. Immediately organize field and regional offices to permit a large degree of decentralized operations of the war production agencies.

10. Issue standby control over prices and wages to protect against inflation.

It must be recognized that a Korean type or World War II type of emergency could phase quickly into an all-out nuclear war. If there was a nuclear war, it is quite evident that the centralized organization would play a very small part for some period of time. While there would be a war production agency in existence from executive reserve ranks, centralized management could not be established for several weeks; nor would communications be adequate for them to operate effectively. This would require that the regional organization take over independent of the central management.

In a nuclear type of war, we would be faced with a chaotic situation from a production standpoint. Our first job would be to keep loss of life to a minimum, and to restore basic utilities.

It would take some time before we could enter certain areas to appraise the damage done. Until a production appraisal could be made, we would not know the extent of damage. Our ability to produce many items would be dependent on other communities, which might or might not be damaged. Until such assessments could be made, our production capacity would be unknown because of the interdependence of contractors and subcontractors in other areas.

It is my belief that the time required to restore utilities in damaged areas would exceed the time required to appraise the damage done. In the meanwhile, local industry which could be operated should be encouraged to do so if manpower was available.

No construction of new production facilities or major repair of major civilian production facilities should be undertaken until a production damage assessment could be made, as the basic raw materials, components, or even demand might not exist.

For a regional operation to be effective in such an emergency, the authority vested in the Office of Defense Mobilization or its successor agency should be broadened so that the Director has authority over all nonmilitary resources of the Nation. Steps should be taken now to revise the National Security Act and Public Law 920 to make this possible. This would permit the Director to delegate standby authority now to all these regional directors, so that the regional directors could take charge without delay in the event of such an emergency.

If such an emergency occurred:

1. The regional director of the mobilization agency would immediately call upon the military, State, and civil agencies to help restore order and to reduce loss of life and suffering.

2. The regional director would issue standby orders freezing wages and prices, and exercise his authority to requisition and ration existing supplies. He would be empowered to obligate the Government for such requisitioning. He would be empowered to take other economic measures within broad guidelines furnished to him.

3. He would designate areas to be abandoned due to contamination, and also areas to be rehabilitated.

4. He would take steps to appraise the damage done and to authorize immediate reconstruction of essential utilities.

I wish to offer a word of caution to all of us studying this completely new area of damage assessment. We must not be misguided by the figures that we develop through electronic devices. The result is not going to be any better than the data fed to the machines. If we put fantasy in the electronic device, we are going to get fantastic results.

The measurement of the damage that would be done to this country in the event of nuclear attack and the remaining production capabilities of the country after an attack cannot be determined by calculation. It has to be accomplished by experienced people competent of making an on-site appraisal. The extent of damage would require a very careful appraisal of the usability of facilities and machinery in the country which could be reemployed.

This appraisal could be done while we're getting utilities back in shape and while we're getting communications reestablished, so that we would be prepared to determine what we can produce.

Now, it would be folly for us to attempt to plan all of the decisions ahead of time for each individual situation. Much can be left on a permissive basis pending direction. But guidelines will have to be developed in advance.

Of course, much would be dependent on the availability of manpower. Where manpower is not needed elsewhere, it would undoubtedly be utilized for restoration of facilities. Based on experience with critically damaged areas where storms or floods have caused havoc, the ingenuity of management and industrial groups to restore plants and facilities to operable condition must be counted on in areas where partial damage has been suffered. This course of action, in event of a nuclear attack, will have a further dimension, and that is; Is it safe and desirable to rebuild? With such limited guidance, the direction and regulation needed will have to be determined locally and once established, enforced by military and civilian agencies to facilitate rehabilitation of people in living communities.

The order of preference for construction and rehabilitation to permit war production will be a tough problem, if we ever have to face it. It would appear that regional action would be directed to the return of utilities to a state of operation in areas to be rehabilitated. Obviously, there must be water, sewage, power, gas, communucations, and transportation before war production can proceed.

When communications have been reestablished and an appraisal made of remaining industrial capacity, national production and construction programs can be selected for preferential authority. This will call for conversion or rehabilitation of certain plants, cannibalization of equipment from damaged plants or plants of secondary importance, allocations of materials and manpower, and expediting operations until a DMS or CMP is operable. As this takes place over a period of weeks, regional directors will probably "accentuate the positive" and permit the ingenuity of people to help restore order, within the bounds of adequate precautions for their common safety.

After appraisal of effective remaining production capacity, it would be necessary to revert to centralized consideration of demand and supply, so that military production and construction could be authorized to build up our retaliatory might to finish the war and win a real peace. Even though quantitative management of resources must be restored to central management as soon as possible, regional management will continue to play an important part, because manpower and local conditions will continue to have an important bearing on production and construction authorization.

One of the greatest deterrents to production in these days of rapid technological progress is the fast rate of obsolescence in missile and weapon systems. Before a new weapon system is in production, its successor is in an advanced state of design approaching readiness for production.

The complexity, size, and power of modern weapon systems add to the task of tooling and production. This dictates that we continue to develop new and better weapon systems, but that we not produce them in large quantities in peacetime, because of this obsolescence factor.

In time of national emergency the decision must be made to produce the latest designs ready for production, and they must be produced in quantity even though improved designs of new weapons seem to offer promise of considerable improvement.

Experience has proved that weapon complexity in itself is not a deterrent to volume production. The fundamental concept of present mass production is to produce component parts to very close tolerances, so that all parts can be assembled with a low rate of rejects. Operators can be quickly trained to do parts of jobs progressively and efficiently. For example, a complex electronic device with thousands

of intricate parts can be manufactured by training each operator to perform only one or two production operations in the hundreds of tasks required to manufacture the complete device.

The greatest deterrents are adequate supervisory personnel, materials, capacity, and tools where greatly expanded production is required. It must also be remembered that the destructive power of modern weapons offsets sheer quantity of production. The emphasis now is on effectiveness through superiority.

Plants and tools, as well as products, are potentially obsolete at any time. With the acceleration to full war production calling for capacity operation and the need for increased productivity, new and improved machinery and plants can be justified. Greater attention to quality often dictates replacement of worn tools during such periods of capacity operation.

Many items produced with specialty tooling and in specialty plants have prototype production only during peacetime. These would require considerable expansion in time of war. For example, land mines, Navy mines, landing crafts, and thousands of other expendable items which are fully developed but not currently produced would be required. Facilities for production would be secured in part by conversion, but construction of new war plants will also be required.

In job shop production, work is routed to standard machine tools to produce parts and machine assemblies. In mass production shops, specialty tools are used and are accommodated to the parts and assemblies to be machined.

The flexibility of the job shop saves tool expense, but handling time and machinery costs are excessive for highly repetitive production. In mass production shops, production lines are automated by specialty machine tools. These automated production lines are rendered obsolete when the parts to be machined are majorly changed.

The happy combination of automation with flexibility would be a great saving in dollars and time in peacetime or wartime production. This is not an impossible objective. As evidence of this trend of thinking, the Ford Motor Company has been making some significant progress in the development of machine tools embodying the concept of component interchangeability. This is a building block principle that makes it possible to break down the automatic tool into five groups of components:

1, bases and columns; 2, mounting devices; 3, control systems; 4, plumbing; 5, cutting heads and related power sources.

If all major mass production plants were to develop such flexible automatic tooling, it would greatly reduce peacetime economic loss and also conversion time and expense in an emergency. Furthermore, as designs of military equipment are changed, it would greatly expedite production of the changed design and reduce the costs and time of retooling for the new design.

In an emergency, parts of machines could be more readily cannabilized. This would be of great importance in a nuclear war, where certain plants would be cannabilized to secure equipment for use in plants to be reactivated.

The time required for major plant conversion was 12 to 18 months in World War II. With flexible tooling this might be reduced to 6 months. This might greatly influence the tide of battle in a national emergency.

War production demands change as strategy changes and as the war progresses. Many of these changes result from technological progress. Many of the changes result from experience with weapons and equipment in conflict. Other changes are directly related to the successes and failures in the conduct of the war.

Each of these changes brings about conversion or reconversion of individual production entities. There is no easy explanation of how these are handled, but they were handled within the framework of quantitative controls like CMP.

As military requirements are cut back and materials are freed up, it is essential that the transition be well planned, so that widespread unemployment is avoided. As a prerequisite to orderly reconversion, materials and manpower should be authorized during the emergency period for production development of postwar products as soon as technical manpower can be made available.

It is also important that some civilian production be authorized as soon as military requirements permit. Government restrictions and controls must reflect these changes in military needs by modifying or abolishing restrictions as soon as possible. It has been my experience that controls are apt to be kept too long. This is no more a criticism of Government than it is of industry. It takes courage and a steady hand to eliminate controls, even when they are no longer needed.

Contracting officers in the Government have learned that preliminary settlements can be made to manufacturers that greatly expedite and assist the manufacturers in their reconversion planning. This practice helped avoid serious losses in the aftermath of the Korean War.

When contracts are cut back or cancelled, manufacturers having Government-owned machinery should be permitted to buy such machinery coincident with the settlement of their contracts and the release of materials for civilian production. The machine tools and facilities so acquired will probably bring the Government and the taxpayers a better price with the manufacturers who have an immediate desire for them than can be secured later by forced sale.

In conclusion, I believe we can safely state that war production in future emergencies would be less difficult to expand to levels required for conventional type wars of the Korean or World War II type. We have experience with this type of emergency, and we have a large munitions industry in operation. With our greatly expanded industrial base, and our high cold war level of munitions production, we could greatly expand our production and operate effectively by known and proven methods.

In the event of nuclear war, we have a host of new problems. I have indicated the steps needed for war production in the event of a nuclear war emergency, but I want to emphasize the need for legislative action now to permit us to cope with the direction of our survival measures and production planning on a regional basis prior to restoration of central Government management of nonmilitary resources. We need new legislation to provide authority for the management of all of our nonmilitary resources in time of such an emergency. This is of compelling importance with the threat of a nuclear attack. This should be accomplished without delay by revision of the National Security Act and Public Law 920.

With such legislation the President could delegate authority to the Director of the Office of Defense Mobilization or its successor. In turn the Director of the Office of Defense Mobilization would delegate authority by regions to regional directors to direct our country regionally in event of attack. When central Government was reestablished, certain powers so delegated to the regional directors would be withdrawn and a national direction restored.

With such legislation on the books, we could do a much better planning, organizing, and training job in the interest of our national defense and planning for war production in future emergencies. This would provide a real basis for enlisting executive reservists for regional service. These reservists, guided by an acting regional director and staff, could better develop regional planning. If we are to be prepared for a nuclear war, we must educate our people to the tasks with which we will be confronted and to the part they must play to save lives and to restore living communities so that we may retaliate in force.

As an aroused Nation, we can do these jobs and produce the armed might needed. Only by being and staying strong can we discourage the Communists from provoking a war which no one can really win.

COLONEL KUMPE: We are ready for questions.

QUESTION: During these lectures we hear a great deal about the necessity of increasing the productivity per working man in America. In what way do you think this productivity can be increased, that is, the output per working man, in a free economy?

MR. SKUCE: By improvement in automation and by incentive plans that are well known by labor and industry. One is the measured day work plan wherein workers are compensated by a bonus payment when the number of pieces produced exceeds the standard. Another is the piecework system under which the worker benefits directly, based on the number of pieces produced.

With the high state of unionization of plants, there is continual controversy with regard to these best-understood incentive plans. Nevertheless, practically every factory in the country has some kind of an incentive system, or they have close enough supervision to assure efficient production rates.

It may not be necessary to have a bonus system in a process plant where the machines regulate the flow. But even in such plants there is usually a bonus for quality production. After all, quality is essential for the effective productivity.

So the answer to your question is that we can achieve greater productivity by effective industrial management through good supervision, automation, and incentive systems.

Obviously, industry is continually improving machines and automation to get greater productivity. Good human relations and proper incentives provide the added ingredient to get the kind of motivation by labor to improve productivity.

The problem of reducing handling time to reduce labor hours requires automation. But automation is expensive because of its inherent inflexibility. If we can find a way to overcome inflexibility, we can then go to greater automation, because, after all, manufacturing is primarily handling. Theoretically the machines do the work. Now, if we can decrease machining time by better machines, reduce the handling time by automation, then we are going to get more productivity.

This leaves two problems--investment and inflexibility. Industry is now attacking the matter of inflexibility to make it possible to improve the utilization of our technical know-how in automation. Such improvement will offer the opportunity to increase our productivity. This would improve our standard of living in peacetime, and improve our ability to convert to war production and make more war goods in time of emergency.

QUESTION: In view of the increased emphasis on the survivor aspects of mobilization by ODM, would you say there should be closer organizational ties between FCDA and ODM?

MR. SKUCE: I think that we presently have a real organizational problem in the management of our nonmilitary resources. There is an unnecessary conflict in this area. The job that FCDA has to do is an extremely important and necessary job. I believe that they would be more effective if they were not troubled with production planning.

A greater concentration on the planning for management of our nonmilitary resources by ODM and its delegate agencies could improve our planning and our mobilization readiness.

The problems and responsibilities need to be segregated between agencies with resources management know-how on the one hand and FCDA for survival responsibilities on the other.

QUESTION: In your talk you touched on the use of electronic devices for measuring damage, but you didn't say very much in favor of them. I wonder if you would elaborate a little more on that.

MR. SKUCE: My statement was not meant to be derogatory to electronic devices per se. They are a great asset in getting facts, in measuring facts, in remembering facts, and in recording them. If we are to get the benefit of electronic computers in the time of an emergency, we must have people that are trained to get facts to put on our punched cards to enter into the machines, so that we get results that are meaningful.

QUESTION: From my reading on the planning for postnuclear attack production it seems to me that industry in general has an attitude that the damage is going to be so high under an attack of this type that they just can't afford the expense with the odds that are placed against them. Do you feel that industry has this view as regards to their planning for attack, care of their records, emergency management procedures, and so on?

MR. SKUCE: I think industry is about as confused as we are about what they ought to be doing. I don't think we have come up with a good "package" that we can sell to thoughtful industrial plant managers with respect to the necessary preparatory measures they should take.

They understand that there has to be a planned succession of management. They understand that there ought to be more than one place where they have records, so that there can be continuity of business. Most of them will buy this. But as for setting up physical underground locations or like measures, they haven't accepted such concepts.

QUESTION: I have two questions. One, you were making a favorable comparison with our present position as contrasted to the pre-Korea and pre-World War II position. But dollarwise I wonder if you took into consideration the difference in the value of the dollar. I wonder also if you have taken into consideration, as you mentioned later in your talk, the enormous additional cost of weapons. I wonder if you also took into consideration the manpower situation that we have now, which looks as if it might be in a bit of a slide as compared to our pre-World War II position, when we had several million people to go into war production.

My second question is--

MR. SKUCE: I think you have already raised three questions, but go ahead.

QUESTIONER: Let's stop on this.

MR. SKUCE: I did not attempt to convert manpower either in terms of effective manpower of one period to another or to convert effectiveness to dollars. Nor did I attempt to try to state them in terms of comparative costs. I just haven't the capability to demonstrate what we can buy with a million dollars in destructive power today as compared to what we could buy in destructive power in World War II or Korea.

I was reminded the other day that Lindberg had a wonderful machine. As you look at it, you gaze at it with awe when you realize that this machine flew the Atlantic back in 1927. But at the same time, if you stop to contemplate what he did with the powerplant that was used to accomplish this tremendous feat, you realize that there's almost enough power in that engine to turn over one jet engine as a starting motor today.

Now, to try to extrapolate these figures from one period to another is away beyond my competence, because, as I understand it, one of our bombers today could unleash more damage than all the bombs we dropped in World War II. If this is the case, I wouldn't have any basis for comparison.

This was merely to try and indicate that we have during the last eight years had our nose to the grindstone, recognizing the threat that we have from the Soviet bloc, and that we have been getting on with the job in quite some strength. So we do have a good starting position. In the event we should have a Korean or a World War II type of conflict, we would be in a better starting position than we were in either of those other cases.

QUESTION: That gives rise to my second question, although it does not bear directly on the point. You mentioned survival items. Why do we have to have another study about stockpiling medical items? We have stockpiled and have now a stockpile of a lot of critical materials, but here people are talking about conducting another study. We have excess supplies much beyond our needs, and actually questions are being raised whether raw materials without facilities to fabricate them will be of any use. Here we have these survival items which everybody knows are going to be needed stockpiled in at least substantial quantities, and yet the Administration now thinks we are going to have to make a study of the thing so we can decide what our course should be. Would you comment on that?

MR. SKUCE: I was party to the group that recommended that we ought to have a survival list, and that we ought to consider what a survival list should be composed of, because if we had an emergency, it is quite apparent that the immediate availability of certain critical supplies would save a lot of lives.

Now, none of us on the committee had the wisdom to determine what the list should be comprised of. But the fact that there should be a list we were sure of, and I believe that most of us here feel that way. What goes on the list will be dependent upon the judgment that is exercised in determining what would be critical if we were attacked.

I'm sure we will make some bad mistakes in leaving off items that might be needed or in providing items that won't necessarily be required. But if we are 60 percent right, we could save a lot of lives in the event we suffered such a chaotic attack.

So I believe that we should very seriously consider what should be in the stockpile today, what should be our stockpile objectives. I am delighted that Gordon Gray, the Director of ODM, has taken it upon himself to bring in a committee of such eminence as the one he has created under Mr. Pettibone, to bring their judgment to bear on this problem and determine what course we should take.

We have about $7 billion worth of raw materials. As you point out, some of those may be comforting from the standpoint of a Korean or World War II type of conflict, but they might be of very little use in the event of a nuclear attack. However, I think that we have to be prepared for any type of operation that might be thrust upon us.

Therefore we are going to have a certain amount of civic pride. In other words, we may have lots of everything everywhere. But we might rather have more than we need than to be a little bit short of something that is very important.

COLONEL KUMPE: Mr. Skuce, I'm sorry, but we've run out of time. We gave you a very large order and you have satisfied it very completely. We thank you very much for coming down.

(6 May 1958--4,100)B/sgh/en

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