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EUROPEAN PRODUCTION FOR DEFENSE

5 March 1952

1365

## CONTENTS

	<u>Page</u>
INTRODUCTION--Colonel J. W. Cave, USA, Member of the Production Branch, ICAF .....	1
SPEAKER--Mr. W. Rogers Herod, President, International General Electric Company .....	1
GENERAL DISCUSSION .....	16

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# RESTRICTED

# RESTRICTED

Mr. W. R. Herod, President of International General Electric Company, was born in Indianapolis, Indiana, 13 February 1898. He attended the Sheffield Scientific School at Yale and graduated Magna Cum Laude in 1918. He began his career with the General Electric Company in 1919 as a student engineer. He was with the Construction Engineering Department until 1929 and as assistant to the president of International General Electric until 1934. He was assistant to managing director, associated Electrical Industries, Limited, London, 1934-1937. He became vice-president of International General Electric Company in 1937 and executive vice-president in July 1945. In September 1945 he assumed the presidency of the company. Mr. Herod was a member of the ROTC at Yale, 1917-1918, B Battery, 10th Regiment, Connecticut National Guard in 1916; served as private in the 3rd Regiment, Field Artillery at Camp Jackson in 1918; and as first lieutenant in the Field Artillery ORC from 1919-1924. He was commissioned a lieutenant colonel in the Air Force, AUS, 27 November 1942 and as a colonel in 1943. He reverted to inactive status in 1945. Mr. Herod is a member of the Academy of Political Science, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers, and the Council on Foreign Relations. He was appointed by the Council of Deputies as coordinator of Defense Production for North Atlantic Treaty Countries in January 1951. Upon completion of this assignment he recently returned to the presidency of International General Electric Company.

RESTRICTED

# RESTRICTED

1357

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COLONEL CAVE: I feel that I have a rare honor as an instructor at the Industrial College, in being able to introduce to you the final subject of your Production Course. Any of you may at any time get an assignment to a Joint Staff or a Combined Staff job, and in looking over our schedule in the Production Course we realize that we could not let you leave the course without a look at production, as some other members of this allied team of ours look at it.

Consequently, we turn to NATO. And we turn to our speaker of this morning, who has been coordinator of Defense Production for NATO. Mr. Herod also has had long and extensive experience in the international production business, as the President of International General Electric. He has recently returned to the United States and is now with General Electric again.

Mr. Herod, we are greatly indebted to you for your willingness to come here this morning and speak to us on this very vital subject. Mr. Herod.

MR. HEROD: Colonel Cave and gentlemen of the Industrial College of the Armed Forces: It is a great pleasure to me to have the opportunity to come here, particularly when I have noted the outstanding men of distinction who have appeared before you in the past. I am afraid I may let you down a little bit in that particular regard, but perhaps the work which I have been undertaking as coordinator of North Atlantic Defense Production may be of interest, and may be topical, particularly in view of the fact that the Lisbon meeting (of NATO) has resulted in a great deal of publicity here in the United States. Secretary of State Dean Acheson has gone on both television and the air as of last Friday night.

Although I have three times myself been in the active Armed Services of the United States--first in the Federalized National Guard in 1916, at the time of the Mexican disturbance; second, in World War I as a private and later an officer; and third, in World War II--my views and likewise the background of my experience are primarily those of a civilian. Hence those that I express will probably be more identifiable as coming from a businessman than from a military man.

And now in connection with the European picture--I think it is interesting to note that the most significant fact on the international horizon since the termination of hostilities in World War II has been

# RESTRICTED

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the continued and still ominous division between the West and the East. After the Communist seizures of the governments of Poland, Roumania, and Czechoslovakia, the West got together and organized the North Atlantic Treaty Organization. Its purposes, as stated in the treaty, as you know, and also reiterated by Secretary Acheson last Friday night, are: First, defensive--to preserve peace. That does not mean peace at any price but it does mean in no sense war. Second, and probably of equal importance but not perhaps of equal urgency--to promote free institutions and conditions of stability and well being. Those two purposes are sometimes compatible; sometimes they are not. They nevertheless are the general purposes of the North Atlantic Treaty Organization.

Hence rearmament was undertaken to act as a deterrent to aggression and thereby to preserve peace; and to be in such form that, if peace should happen to be lost for any reason, the West would have a sufficient basic strength to be able to resist and ultimately to win through.

The level and form of rearmament has been determined primarily to be effective as a deterrent, but also not to break the economies nor destroy the free institutions, the stability, or the well being of the peoples. And, in form, it was to be internationally so correlated, that the strength of each individual country would be increased and, to use a trade term in the electrical business, through "mutual reaction," an increased combined strength was to be created.

But fundamentally, individual and collective strength does not lie alone in the material elements, as you know better than I. Important elements--just as important--are the nonmaterial ones, namely, character, conviction, and resolution. Of tremendous importance are hope and faith; hope, first, that war is not inevitable and that a respectable peace can be preserved; second, that a greater measure of spiritual, intellectual, and material satisfactions from life can be expected in the future; third, that if peace should be lost, we can win through.

These intangibles, making up morale, are just as important as physical strength against external aggression; and they must be evident. They, as well as military strength, were pretty well lacking in postwar Europe, particularly in western continental Europe, at the time of the outbreak of the Korean war, in all the territories and likewise through all strata of the body politic. Mrs. Herod and I were both there at the time and we noted it. It is significant that, as of today, there is a great improvement in both those aspects, which I will go into a little more in detail later.

Now unfortunately, NATO's "might" at the present time, and even that of the United States, is still mainly potential in the military field. Conversion into real might--material, psychological, and otherwise--is progressing. However, the rate may be less than expected.

# RESTRICTED

# RESTRICTED

1369

The curve is up. Lack of purpose, disunity or failure to pull together can limit our realization and that (realization) is the main thing. And we must see that it does not happen.

In appraising the situation, particularly from the standpoint of what can be expected from our allies, it is interesting to make a comparison of the East and the West. If we take figures which United Nations publishes and seems to believe are approximately correct, although doubtless they may not be correct in all cases, it looks as though USSR and its European satellites, prior to Korea and up to the present time, have apparently been devoting a higher proportion of man-years of effort and expenditure per million of population to their military effort than have the NATO nations.

The Soviet, with 175 to 200 divisions and a considerable air force, has, at the present time, a military establishment of greater immediately available striking force than the West, because Russia kept its armed forces in being, whereas the NATO nations generally disarmed after World War II hostilities. The continental European NATO nations, particularly, have had recently to start from scratch, due firstly to destruction from war, and secondly due to dismantling by occupying powers.

Britain and the United States are somewhat better off in these latter two respects. But, as far as the other North Atlantic Treaty countries are concerned, they had to start almost from scratch.

Now if we look at the military potentials that there might be on both sides (West and East), it is interesting to note that the 14 North Atlantic Treaty countries at the present time, with the recent inclusion of Greece and Turkey, have a combined population of some 370 million; whereas the USSR, with all its European satellites together, has perhaps less than 300 million. I am not including China.

The NATO countries' aggregate or national incomes are three to four times those of the Kremlin dominated areas. NATO steel production is four to five times that of the USSR and satellites. NATO's electric energy production is four to five times that of the Kremlin dominated areas. And according to estimates published by the National Industrial Conference Board, the total energy, animate and inanimate, devoted to "productive purposes" by the NATO countries, is approximately three times that which the Soviet devotes to productive purposes. Further, in skilled labor force, in the heritage of technology, and in technical achievement, the NATO combines greatly exceed the Soviet and its satellites. If NATO were a "monolithic" unit, the preponderance of resources would be overwhelmingly on its side.

# RESTRICTED

# RESTRICTED

1370

But we must not take too much comfort from this. For, as nearly as can be determined, the rate of economic expansion of the USSR and its European satellites, in terms of percentage, has been greater than that of the NATO countries in the last four or five years. Although statistics are not too reliable, if United Nations figures and others are to be believed, the USSR production in steel in 1951 was some 31 million (metric ingot) tons, evidencing an increase over the previous year of some 4 million tons, or 14 to 15 percent. The electric power of the Soviet in kilowatt hours in 1951 was estimated as some 100 billion kilowatt hours against 90 billion in 1950 and 82 billion the year before that, an 11 to 12 percent per annum gain. In energy devoted to productive purposes, the USSR is said to have increased from 1937 to 1948 by 95 percent, whereas the highest increase among the NATO countries was said to be in Canada, with 90 percent. In the United States itself the increase was only some 70 percent.

The USSR in 1950 had roughly one-sixth of the world's total industrial production. It apparently exceeded that of European NATO. But it does not by any means exceed that of the United States and European NATO. In three and one-half years, from 1947 to 1950, the USSR and its European satellites were estimated to have roughly doubled their percentage of the world's industrial production; against a gain of one-quarter for the European NATO countries exclusive of Greece and Turkey, which in that particular instance were not too important. Though on a lower starting basis, it is of interest to note that these figures indicate for the USSR and its satellites a rather high rate of expansion in fundamental economic power.

And how about the technical developments and achievements east of the Iron Curtain? In that connection, they have had at least two nuclear explosions; the only country outside the United States to have achieved them. The MIG airplane, as you know, is a high quality plane. And its production problems to a great extent have apparently been solved. In submarines with "snorkel" designs, the USSR seems to have both quality and quantity. Their tanks--as to size, armor, and firepower--are not too bad. In addition, their electronic development, with radar and anti-aircraft fire control, must be noted as technical achievements.

We have no copyright on brains on this side of the Iron Curtain. Nor has any of the individual countries on either side of the Iron Curtain. And TIME up to the present, even since Korea, may not have been on our side. And, although we as Americans have every confidence, and I personally have every faith, that the United States as an individual country can match any other, we can not be certain, in a strictly military sense, that time is even now assuredly on NATO's side, particularly if we make allowance for the multinational distribution of

# RESTRICTED

# RESTRICTED

1371

NATO's potential and its lack of integration. I do not mean that in a disparaging way. But time, even today, is not necessarily on our NATO side; it certainly should be before long. But up to the present it may not have been. Because it is interesting to note that in the geographical distribution of potential which I have referred to, the NATO population is about 165 to 170 million in North America and 200 million in Europe. This latter is less than the population of Russia and its European satellites. In addition, the European NATO population is dispersed around a "periphery." It is not continuous and centrally located as is the USSR's and its European satellites.

Further, based on over-all factors such as the production of steel, electric power, output of manufacturing and engineering industries, if you take the United States as having a basic weight of say one unit, the United Kingdom is the next important power in the North Atlantic Treaty Organization with a weight of approximately one-fifth to one-sixth of that of the United States. France has only about one-tenth to one-twelfth of the industrial power of the United States; Italy approximately one-twentieth; and all the rest of the European NATO, with the exception of electronics and ships, aggregates approximately one-twentieth. Hence, the industrial potential of European NATO, including the United Kingdom, is only one-third to two-fifths of that of the United States.

In this particular connection, it is interesting to note that the United Kingdom, with approximately one-fourth of the population of European NATO, is itself producing more armament equipment than all the rest of European NATO combined. Germany (with slightly less industrial capacity and slightly less immediate potential than the United Kingdom), Switzerland, and Sweden are the principal European areas outside NATO which could be called upon for industrial contributions if we think in terms of the next few years.

The aggregate economy of European NATO is hence approximately one-fourth to one-third of the whole of NATO, and some 50 to 60 percent of that of Europe exclusive of USSR; but this one-fourth to one-third is distributed unevenly over 11 sovereignties. It is therefore not integrated. The separate national economies, to a great extent, are not complementary but are competitive. The result is the industrial units are small; the industrial development is more nearly "vertical" as compared to a more nearly "horizontal" development here in the United States, especially in the manufacture of components and the degree of subcontracting that is current in the United States. My own parent company, in its jet engines alone, has 17,000 suppliers. There is nothing comparable to that in Europe.

The result is that the speed with which changes can be effected, such as the introduction of new products, the building of new plants

# RESTRICTED

# RESTRICTED

1572  
and new tooling is much less in Europe than in the United States, in fact only about one-half the speed that such are done in the United States. In addition, in the products that come off the lines in Europe, there is roughly double the man-hours content that there is in the products of the United States. These factors, combined with the absence of designs and lack of tools for new and modern weapons, except in the United Kingdom, mean that NATO Europe is starting "from behind the eight ball," to use a popular expression, in the industrial side of its rearmament. And it requires a good deal of time to build up effective production.

I think it is also of interest to note, and to me in undertaking some of this work it was an outstanding factor, the complexity, high cost, and high amount of man-hours required in modern armament equipment to support a million troops, whether in the Army, Navy, or Air Force, as compared even to what it was in the last World War. Then, I believe, we had on our side practically no jet planes, where now things are "jet." There has been a tremendous expansion in guided missiles; enormous development in electronics and radar, which in the last war were primarily for scanning purposes. Now they are applied to antiaircraft fire control and all sorts of other things; all these to say nothing of the developments in the atomic field.

I think in Mr. Wilson's 31 December 1951 report it is interesting to note various developments of the airplane. Some of us have flown, you in this room and I myself, in some of the World War I planes. The weight was about 2 tons and the speed 120 to 125 miles an hour, which was pretty good. In World War II there was the P-51 with a speed of about 440 miles an hour and a weight of 4 to 5 tons. Then there was the B-17 with 35 to 40 tons weight, later supplemented by the B-29 of 70 tons, which represented remarkable progress. Today the F-86 which has a speed of over 670 miles an hour has 7 to 8 tons weight and the B-36 has some 180 tons. You can hence see the tremendous development.

And now that we have reached into the jet field requiring advanced metallurgy and a new art of manufacture, we are dealing with temperatures 1800 degrees Fahrenheit, as compared to piston engines and 1200 degrees Fahrenheit in World War II. This means that modern designs, likewise developments, were not available on the Continent of Europe, where they were overrun and fought over, with plants dismantled. They have started from "way behind." And it takes time to catch up. Whereas Europeans in the First World War supplied us with most of our equipment, in the Second World War we supplied most of their equipment. But in the preparations now and in the very new techniques of equipment, we have, in certain lines, passed entirely beyond the capabilities of European industries.

RESTRICTED

# RESTRICTED

1373

The significance hence of this geographical distribution of industrial potential within NATO and the significance, likewise, of the high degree of technical requirements can be illustrated in one or two respects. For example, take Italy: With roughly one-twentieth of the industrial power of the United States, with a steel production capacity of only some 3 million tons per year, you can say that physically, in a short period of time, Italy cannot make enough of the big tanks, heavy bombers, or heavy artillery to warrant it making any other than on a long pull. If you are thinking of a period of three to four years, it is not feasible to consider their production with Italian labor and in Italian facilities, even if we would pay for the whole thing.

This applies to many items--heavy airplanes, heavy tanks, heavy duty electronic equipment, heavy artillery, and, presumably, atomic weapons as well. In those categories western Europe cannot--short of a war economy--become self-sufficient within a decade or even a generation. Given a generation, if there were no improvements outside Europe which would make for obsolescence, they might be able to build up. And if peacetime attrition were low they then could possibly develop self-sufficiency. But those assumptions can't be assumed. And if you take a three-to-five-year build-up as a base, short of a war economy, which is an important factor, it is doubtful whether one-half (by value) of the hard goods requirements of the European forces could physically be produced in Europe without regard to money price, even on the assumption that the products were in accordance with European standards and not United States standards. Most of the continental European countries are, or could be self-sufficient in the soft goods lines, and in the infantrymen's equipment, in small arms, and small arms' ammunition. In normal communication equipment, medium and light artillery, small ships and transport vehicles, continental NATO as a whole, but not individual countries, could become self-sufficient, with European standard equipment, within perhaps a three-to-five-year period, except for economic and financial dislocations and limitations. However, such would require international transfers and foreign purchases. And though most everybody wants to sell abroad, nobody wants to buy. That also applies to us in the United States about as much as over there. It is hence sometimes difficult to effect transfers.

For the somewhat heavier and more technical items, such as light tanks, jet fighter aircraft, and so on, some of the NATO countries can enter the field of production. But, short of a war economy, they could probably not supply more than a fraction of their own requirements in these fields within a three-to-five-year period, even if the financial problems were solved through payment by the United States.

Accordingly in my opinion, any prognostication of thoroughly equipped European forces on a scale of some 50 front-line divisions,

# RESTRICTED

# RESTRICTED

1374

such as is being currently talked about, with roughly comparable reserve divisions, and say 8 to 10 thousand front-line planes, and comparable naval forces, by 1954-1955 must, from considerations of sheer lack of ability to produce in Europe within the time limit with the present availability of tools and tooling, the labor diversion and training required, and other factors, be based on the bulk of the hard goods equipment being supplied from the United States, even if the financial problem could be solved otherwise.

Now in estimating expected production, the physical production capacity--in the sense of physical capability to produce, as measured in terms of availabilities of facilities, such as floor space, headroom, tools and skills applicable to given items--is difficult to define accurately. Capability assumes the availability of labor and raw materials. In general, the assembly and end-item fabricating capacity of Europe for armament is considerably in excess of the production which could be sustained at an acceptable level of devotion of men, money, and materials into such production. Where any one or all of the men, money, and materials or a combination of them, as is usually the case in Europe today, are the limitation, over-all production may be limited, even though surplus end-item fabricating facilities may exist in specific items. This is generally the case in Europe today.

\* The ceiling to the over-all envelope of European armament hard goods production--measured in terms of labor or financial values--is more determined today by the politico-economic limits of "acceptability" than it is by anything in the way of sheer physical capacity. In other words, from a physical standpoint, far more armament production could be undertaken on the Continent of Europe than is presently programmed, if it were economically, politically, and socially feasible to devote the money, labor, and material to it at the expense of diversion from other things, with the resulting consequences as to inflationary pressures, further scarcities, increased taxes, burdens, and so on. Accordingly, it is not just a financial problem. But even in finance, so far as the equipment is concerned, production is a competitor for the "defense dollar" or "defense franc" or pound, against infrastructure, the pay of troops, and all the other things that go along with rearmament.

From this sketch I think it is evident that, insofar as dependence upon European production is concerned, it is to be expected that vast shortages in the equipment of European forces, of the order of magnitude about which we are talking, will be encountered within the period of the next two or three years. Such would be the case even if European production were pushed beyond the "expectancy level" up to the "capacity limit," based on available tools, plants, and so forth. At the "acceptable limit" the shortages will be great. To define what might be the over-all envelope of "capacity limit" in relation to the "acceptable limit" the ratio is a factor probably of the order of 2 or 2.5 to 1.

# RESTRICTED

# RESTRICTED

1375  
It is significant, however, in this connection, to note that even if the level of production were raised from the "expected levels" to a feasible limit which would not require too much new tooling and things of that nature, the Europeans would still require the bulk (by value) of the hard goods for the forces we are talking about to be supplied from here, if we want them to have the goods by 1954 or 1955.

Another point which is of extreme importance, to my mind, and somewhat serious, is that if attrition rates, which would appear to be applicable for United States forces, are applied to the equipment required for European needs, the continental European industry would have to modify its pattern and have to increase its level of production tremendously, in order to be able to meet even the maintenance and replacement requirements in the hard goods field after build-up has taken place. That means that considerable attention and earnest thought have to be given to the policy of what type of things we want the Europeans to manufacture, so they can make the maximum contribution in build-up and sustained self-sufficiency.

And in that connection you can't always switch from producing one item to another very easily--even so far as maintenance is concerned.

These things emphasize the importance of United States support through our military-aid program.

But, in my opinion, it is the potential strength and determination of the American people, together with the belief that the United States will follow through if Russia should start aggression with any NATO country, which is the principal concern and deterrent of the USSR. This more than any actual strength on our part at present, or any strength to be derived from European NATO's own efforts. The United States is the big deterrent. This situation can be abused; it likewise can be used.

I think it is pretty generally the opinion of continental Europeans today, and that it is relatively widely held, that the "floor" (or lowest level) to which Europe's efforts must attain is that degree of rearmament effort which will assure the United States continuing interest in Europe. Unfortunately, and I think it is only a minority, there are those likewise who think that this level should be the "ceiling" of their efforts. That would be an abuse. I don't think such opinion is general but it is true in certain cases. The implications of it are serious.

But increased strength in western Europe, as well as in the United States, is by no means unimportant. It has been and is evidence of ours and NATO's resolution and power. And this has been instrumental in improving the morale and improving those intangible factors in Europe. It has likewise added something to the material strength of Europe.

# RESTRICTED

# RESTRICTED

1376

And now I would like, just for a moment, to speak a word in regard to standardization. Every time the question of supply and production comes up the query is made, "Why don't we standardize on American guns or jeeps throughout Europe?" There's no question but that if standardization could involve interchangeability, even only as to end-item use or function, it has many apparent advantages. Such would permit simplification of logistics. It implies interchangeability of sources of supplies, for example, as to plants in different countries and so on, and thereby give extra security. It can mean possible reduction in quantities of reserves, parts, and so forth, and simplification of training.

Against those advantages, however, there are a great many problems in standardization if it is to be carried out, with the intention of defining standardization as "duplication." The industrial conversion of the foot, pound, inch system to metric equivalents is a difficult proposition. Such means not just the conversion of drawings. But, if we say the inch is our standard, our European friends do not use the equal 2.54 centimeter as his standard, for example, for rods; he uses, say, a 2.5 centimeter standard. But that is not duplicate or interchangeable. When it comes to component parts, the interchangeability of all specific parts is a difficult thing to put into practice. Furthermore, it frequently means industrial difficulties in changing over tools, likewise tooling and gages. It means that shop practices must frequently be modified. Sometimes we work down to tolerances where they may work up to tolerances. The result is sometimes greater cost, greater time to "make ready," and bottlenecks, particularly where subcontracting is concerned. You have nonfits so far as interchangeability is concerned. Sometimes even American automobile manufacturers, having branch plants abroad making similar cars from exactly the same drawings as used in their own plants in the United States, find difficulties and do not try to make spline shafts interchangeable between the United States and foreign plants.

Judgment must hence be exercised in this particular matter, to weigh standardization advantages against the industrial difficulties in the way of (1) increased cost, (2) increased loss of production or increased time taken to get into production, and (3) the extra load or call upon engineers and draftsmen, who are scarce. There's a very large scarcity even here, in engineers and draftsmen.

There is, however, an endeavor to promote standardization of essential characteristics. And there are cases of having at least interchangeability of some items most used. For example, French guns are designed for use with American ammunition or French ammunition. The range may be different with different ammunitions but the howitzers can be shot. That's the essential thing and that is better than trying to make all the individual parts individually interchangeable between the French and American guns. It is better for the people

# RESTRICTED

# RESTRICTED

1377

on Eisenhower's staff to have some guns and ammunition available even if detail parts are not interchangeable, than it is to have all nicely standardized but no guns available.

At the present time success in standardization is relatively limited. There has been some success in the ability to use USA as well as foreign ammunition. Likewise electric system voltage on automobiles and spark plugs have been standardized and some work on tires. But when it comes to the interchangeability of detailed parts, there has been only very limited success. And if we are talking about a short period for the build-up of forces, it is doubtful if we can expect much success.

In the above I have emphasized various physical limitations to production. But in addition there are economic and financial limitations. These manifest themselves in terms of financial burdens such as tax rate, money limitations, and balance of payments difficulties. There is also the question of availability of raw materials, particularly the nonferrous materials. There is further a question of the diversion of labor from gainful occupations, and the question of the consequent decrease in exports. These factors can lead to social and political problems which, if unsolved, lead to internal dissensions. Hence a balance must be struck to provide increased military strength but without internally weakening the economy. In some European countries at the present time any greatly increased armament effort would involve internal dislocations out of proportion to any incremental increase in strength of military forces to withstand aggression.

Of course, such a philosophy of balance can be abused. In my opinion, it is being abused in some quarters today. But, by and large, even if you could eliminate the abuses, such would not make a tremendous difference in lifting the over-all envelope of what can feasibly be expected from Europe in the next two to three years.

To cite a few examples: Take for a moment Great Britain--its 4.7 billion pound three-year program is represented to the extent of 40 to 45 percent by "hard goods" equipment. But such "hard goods" represent some 40 percent of the output of Great Britain's engineering industry, which in turn contributed two-fifths of Britain's exports. Any increase in this particular field hence means increased pressure on the balance of payments through reduction in exports and will constitute an inflationary pressure which will accentuate their difficulties. That point you will readily understand, particularly any of you who have had international banking experience.

For example, as compared to 1950 imported raw materials of Great Britain had by mid-1951 increased 76 percent in price; total imports

# RESTRICTED

# RESTRICTED

1378

increased 43 percent in price; the exports increased only 20 percent in price. There was hence a deterioration in "terms of trade" of such an order of magnitude that if a balance had been effected through additional exports, the additional yearly rate of exports would have had to be of such quantity, that in terms of manpower and materials the load on the economy would have exceeded the then current rate of armament production of the United Kingdom. This situation has now changed considerably; nevertheless, it left its mark.

Taking account of the lesser military production in France, Italy, and other countries, this balance of payment difficulty was also accentuated there. Although the price differentials have now changed, so that the above does not currently apply, nevertheless an awareness of the balance of payments situation is now very general in Europe. And this has, unfortunately, had political consequences.

Another example which might be of interest was mentioned in the "New York Times" today. It noted that if you take three items alone--rubber, wool, and tin--the price rise from mid-1950 to mid-1951 represented additional purchasing power of 1.5 billion dollars to the producing countries. And the price drop in these three commodities in the third quarter of 1951 represented a billion dollars decrease. This change was at a greater rate than the current rate of dollar aid given to Europe on economic account, not including military aid. Such are unfortunately typical of situations which are at the present time governing the European reluctance to devote additional resources to the rearmament program. It is not alone the burden of each individual country's rearmament program which has made this situation for the European countries. It is the fact that over-all world forces have been released, primarily at the instance of the United States, due to its relatively greater weight in the world's economy, which has caused these adverse fluctuations in the terms of trade. We in the United States indicate we are going to stockpile some commodity. This releases speculation and purchasing power on a world scale and up go prices. To the European we are frequently said to be the blame. But it is not what we are putting into the stockpile which causes the main pinch in the scheme of things. It was the world scramble which produced the price rises and inflation. In tin and in wool, for example, there has been no shortage. There has been a fivefold price rise and later a drop, and such is very damaging.

Take Italy, for example--the total engineering industry employment is only some 250 thousand in a population of some 45 million people. There has, however, been a depreciation of Italy's currency to one-fiftieth of its prewar value. Italy's total steel production is less than 3 million tons. Unemployment is 1.5 to 2 million, with about a million more underemployed. In ships, electronics, ammunition, and vehicles, Italy could produce much more for the rearmament program by a multiple of 2, 3 or 4 times, than it is presently producing. But financial resources and raw material will not permit. If we can solve

# RESTRICTED

# RESTRICTED

1379

that problem, it would be a great boon. It would help strengthen the Atlantic alliance; and it would help us.

I had a long talk with Premier De Gasperi when I was in Italy, and also with President Einaudi, whom I had known before. They told me that they think Americans are a fine, wonderful people. There's no question about that. "But," they said, "you have never gone through a depreciation of your currency where in a few years it has depreciated to only one-fiftieth of its value; you don't really know what that means." According to Mr. De Gasperi, Italy has some 35 percent Communist votes. But he does not believe there are more than 5 percent real Communists in Italy. The other 30 percent are "protest" votes. If Italy lets the currency slide, he feels the opposition vote will increase. The "opposition vote," if contained, against the government will not necessarily lead Italy to communism. But even the present government, in order not to permit a rise in the Communist group, may have to so direct its policy as to limit the pressure on the lire as compared to any increased rearmament effort.

Take France--in France there can be an additional amount of armament production. They have the plants and most of the tools to do it. But there is the question of getting a political solution as to an agreement on an acceptable scale as to how much will be undertaken and the method of financing. This is difficult to attain. The government has recently fallen, not on the principle of increased effort but on failure to agree on the mechanism and method. There has, as you know, been a continuing succession of French governments. But don't get too discouraged over the fall of the government this time. French governments, since the foundation of the Republic in the 1870's, have lasted, I believe, only about nine months on the average. And although the lives of recent governments have been even less, their government situation is not so low that we need to jump out of our seats, in spite of the fact that we may be trying to protect ourselves against a depreciation of the French franc.

Take Holland--in Holland industrial production is perhaps one-third up over what it was before the war. The country looks prosperous, when you look at it. However, they still have the billeting law. With 55,000 houses being built a year, the law in the metropolitan areas is such that if you have so many rooms you have to have so many people. You are given 30 days in which to get in someone you like. If you do not get someone you like, you take Joe Doaks. The Dutch reaction is just the same as yours or mine would be. Some think that the Russians may not march. It is not that they are any less against the Russians. But they want to get the stranger out of their house before undertaking certain other things. In a similar case, I believe, your reaction would not be greatly different.

But now what has been the result? In spite of arguments we have over the American aid and other things, there has been a remarkable

# RESTRICTED

1380

change in the European attitude and spirit in these last 18 months. Mrs. Herod and I were in Europe at the time of the Korean outbreak. I have been there, with the exception of 1948, every year since World War II. I was there in 1945-46-47-49-50-51. In 1948 I was in China, Japan, Java, and the Philippines. Hence I did not go to Europe that year.

Immediately after the outbreak of the fighting in Korea, the sentiment throughout practically all western Europe was that war was inevitable, a consequence of which was a fatalistic resignation to defeat. Under today's conditions, one finds that the majority of Europeans will say that war is not inevitable. That's a remarkable change. And you find on the part of at least approximately 50 percent that they no longer accept the thesis of ultimate defeat. The Europeans accept the thesis that if the Russians should march, the West might not be able to stop them at this point, or that line, but they do not accept the necessity of ultimate defeat.

And one finds more spirit today on the positive side. You find a few Europeans, not too many, of the opinion that the price the Russians would have to pay to march over western Europe under today's conditions would be sufficiently high that the Russians might not be able to go all the way to the sea. There are some who feel that, with NATO's present strength and with the increased strength that could be built up, a stand might be maintained and ultimately a counteroffensive mounted.

In checking this question of spirit, it would be my opinion that Britain would fight if the "chips" came down--and whether the United States did or not. I think Britain will not put its armed forces into a European army nor under us. The reason, looking at it from the British standpoint, is that they know that our strategy, with our tremendous power, might be such that if the chips "drop" down in some ways, we might want to go at Russia through Africa or through the East. Such might leave Britain undefended. But the British cannot afford to leave Britain undefended. They have stood alone before, in 1940, and rather successfully but at a high price. I think their spirit is very definitely good. The British are not self-sufficient in the rearmament industry. But they are more nearly self-sufficient than any NATO European country. They have the biggest armament production outside the United States. And it currently represents the equivalent of all the continental European NATO countries' armament production.

When you get on the Continent, it is different. People ask, "Will the French fight?" "Will the Dutch fight?" "Will the Italians fight?" My opinion on that is that if there is a clear case of Russian armies' marching, the French will fight. If it were a case of infiltration and subversion, it may be different. Then the French might not fight. But the change in spirit on the Continent has been enormous. And the advancement of that change is something we should work on.

# RESTRICTED

# RESTRICTED

1381

Against this there is now throughout Europe a far greater awareness of economic and financial limitations, scarcity of materials, increased tax burdens, and so on. This, combined with the rising import prices in the United Kingdom, France, Italy, and the Netherlands, means there has been a development of "Bevanism"; that is of a psychology of "don't increase armament budgets at the present time; don't put more effort into armament production at the present time with more diversion from civilian consumption."

I believe that the reluctance to expand armament efforts has increased in the last 18 months and in the last 12 months. In my opinion it is now two-thirds sincere and only, say one-third opportunism. Whereas 18 months ago I should have said the level of reluctance was lower but it was two-thirds opportunism and about one-third sincerity. I believe there has been definite improvement in that regard, even though due to this wider awareness and greater recognition of difficulties, armament production schedules have been stretched out further. But that same drawing out of schedules has likewise been manifested here.

There is no question but that Europe's attitude has changed tremendously. There is less military fatalism; but more concern with the economic and financial limitations, more hope, less spirit of defeatism. In my own estimation, the probabilities of Russia knowingly starting a war is, if anything, less today than it was 12 months ago. The Russians must factor into their considerations today America's determination. They must know if they should begin a war with any European NATO country that America will ultimately come in with far greater power than it has today. On the other hand the prospects of a war being generated through a mistake may be even greater today than before because of the increased tension.

On the military equipment side, I think we will be disappointed in the output of NATO Europe unless we understand the situation there. Although relatively and on an absolute scale we in the United States are standing a much higher burden of rearmament and much greater sacrifice, on the other hand the "pinch" hits harder on the other side of the Atlantic than it does here. I know of few friends here in America who want television sets and are unable to get them, or a new automobile. But one cannot get them on the other side. There's less "fat," and "pulling in of the belt" hurts more over there than here.

In looking at the expected production of armament by Europe, the question is raised: Within what period can Europe be expected to be self-sufficient? If we are talking about a build-up of forces by 1952-53, it is useless to hope for more than about 10 to 15 percent self-sufficiency in equipment requirements through Europe's own production. And even by 1954-55 for the build-up of forces contemplated, only a low degree of continental European equipment self-sufficiency

RESTRICTED

# RESTRICTED

1382

could be expected. On the other hand if we could stretch out the schedules over a decade, we might be able to come up to something in the neighborhood--this is a guess but based on some observation--of perhaps one-half by value for equipment self-sufficiency. The immediate equipment problem is hence to plan the type, source of supply, and amount of the equipment capabilities so as to derive the bulk of them from the United States, or to dispose of the use of our resources, in one way or another, in order to stimulate production in Europe. For further continental European NATO production, with its burdens, I think even if we planned through offshore procurement to assist, we could not count, in the next couple of years, on more than something in the neighborhood of one-fourth to one-fifth of continental Europe's "hard goods" requirements being produced in Europe. We can count on their manpower, I think. And the improvement of their spirit has been great, although it has not reached the point of being self-sustaining yet. But I think we can continue to build on it, in spite of limitations. Such will take patience on our part and on Europe's part too. But I believe Europe is worth building upon, because additional strength, psychologically and materially, can, in my opinion, be developed there. And with such additional strength we should ultimately come to the point where not only is the risk of war lowered, but we could build up sufficient strength that with our great resistance a line could be held.

Colonel Cave indicates I have to stand up here and be subjected to your missiles.

COLONEL CAVE: Who has the first missile?

QUESTION: You mentioned the terrific and very important decisions made in Lisbon, which received a great deal of consideration in this country. Now we are faced with something of a spectacle of France's inability to apparently carry out those agreements, unless the French make very substantial changes within their own country. Perhaps we have permitted the Europeans to agree to too much of this plan; maybe we were expecting too much. Would you mind commenting on that, as to whether or not with their own agreements, we have set them to accomplish more in their own defense than is reasonable? Would you comment on whether or not De Gaulle might be good to put up for France?

MR. HEROD: Colonel, I am not too good a historian, and I have no powers of clairvoyance or prophecy, particularly in the political sphere or in horse racing. On both of them I have made bets from time to time. So far as I know, my horses are still on the course--and at times with high odds. To answer your first question, I was not at Lisbon. I don't know what the details of the agreements at Lisbon are. I do believe, personally, France could carry a somewhat increased burden with reference to NATO, as compared with what was arranged; particularly in

# RESTRICTED

# RESTRICTED

1383  
the industrial or armament production field. The French want to make more artillery; they furnished us with 75-mm. guns in the First World War. The French have had and do have pretty darn good guns. Their 155-mm. howitzer, even with American ammunition, shoots as far as ours do. They should not, although they want to, make large tanks. The over-all financial burden which France can sustain, in my opinion, cannot be increased much above its present commitments. And the French may have bitten off just about as much as they can chew. But the distribution, competitively, within that limit, as between equipment, which is low in percentage of their budget, and other things, could with a certain amount of unemployment at the present time, I think, be changed. The difficulty is in finding a political method of obtaining agreement to it. And the tax structure now is unfortunate. If you make an analysis of the effective rates of European taxes, it is very revealing.

The British collect approximately 11 percent of their national income through income taxes. The French collect about 5.5 percent; but the taxes in France, in accordance with the law, are higher percentage-wise in the lower income brackets than they are in Great Britain, that is when taken relative to average income.

In Italy they are collecting 3.5 percent of the national income from the equivalent of income taxes, with still supposedly higher tax rates in the lower income brackets, such apparently indicates progressively increasing evasion of taxes; and unquestionably there is evasion.

The French, in my opinion, can perhaps do a little more, but very little more financially, except as supplemented by the United States. If they could be assured of payment for making more armament products, they could contribute a great deal more. And they could in this way change the distribution of effort to their advantage and ours. However, whatever the difference between what they could do and are doing, and between Lisbon and Paris, the difference was one between 10 and 15 percent increase in taxes--such increase pinches. In the French scheme of things, this led to a political crisis, not an economic crisis but a political crisis.

As to De Gaulle--he is a very difficult man to get along with. I have had the pleasure of meeting him but not in this particular work; I do not really know him. He is definitely "to the right." He is "against" the NATO structure; he is "against" the armament plan; he is "against" the so-called subservience of France to the United States. He is "for" a heavily centralized French government with strength and continuity. He is "for" a government excluding all Communists. I don't think any of us take exception to what he is "for." I think some of us take exception to what he is "against." It is my "hunch" that the French may have embarrassment with De Gaulle. He has not agreed to

# RESTRICTED

# RESTRICTED

1384

stay in any government where Socialists or Communists had representation. It is my opinion that France could go over at some time to De Gaulle, as being a strong enough fellow to do a job. But I don't think such would be in our short-term interest nor to our advantage to have that happen. In the long term, it could maybe stiffen the French. That might be a good factor, although we might have a temporary setback.

QUESTION: Sir, with regard to the French, have they been able to "shake loose" the means of the wealthy class to use them to develop their industrial economy and their general economy?

MR. HEROD: Mostly no; partially yes; but mostly no. We did a little thinking about how we might get some finances to stimulate production. We consulted French bankers. We knew finance was not in the terms of reference of our scope of production, but we did it anyhow. The amount of French gold that is hoarded and external assets are estimated as some 2 billion dollars; this is hoarded and held. There is a great deal of sophistication in France, mostly among the more economically privileged people. And the gold and foreign assets are not coming back to France. They are not being used in the development of the country, which is most unfortunate. Now the Frenchman does not want to buy government bonds. Since the war, not until 1950 has the yield on French government bonds been as great as the depreciation of the bond in terms of purchasing power. When you have that type of structure, you do not put your money in bonds. And the French Government is suffering from that. The French have gone through depreciations of currency; so has Italy; the result being that public confidence has been weakened. There is tendency toward "flight from the franc." Last week the franc was selling at 483 to the dollar; its official rate is 350 to the dollar. That means that people are trying to get their money out of France. The French authorities have not found the solution to the problem of bringing that hoarded and foreign held money, 2 billion dollars, into circulation for the economic stimulation of France or for a military output to any appreciable extent.

QUESTION: Mr. Herod, I have been reading a lot about the resurgence of Germany, how much better off they are than either France or England. I wonder if perhaps we have not been putting the screws too hard to our allies and not hard enough to our former enemy. Do you think that might be the case? Would it help the over-all picture over there is we try to get something more out of Germany?

MR. HEROD: In my official job as coordinator I did not go into Germany, because it was not NATO; I thought it would be unwise. I have been in Germany many times since the war--in the British Zone, the French Zone, and the United States Zone. I have been in the

# RESTRICTED

# RESTRICTED

1385  
Russian sectors of Berlin; in plants there occupied by the Russians; also in the western sectors of Berlin. I have not been in the Eastern Zone, with the exception of going through it by train, in spite of the fact that General Clay in 1945 said, "We will get you in there." I was however still waiting for the permission, which might have come through in a matter of years when my time was up, so I said, "Maybe it's better that I go home." The German industrial capacity and production in western Germany has increased remarkably since the war and since before the war. The standard of living is about back to prewar levels. The difference has been applied to reconstruction and rehabilitation.

QUESTION: Would you devote a couple of minutes to offshore procurements:

MR. HEROD: Yes. Offshore procurement, in my opinion, can do a tremendous amount to stimulate European production, through making possible the availability of money and resources, in the way of material. Those resources can be obtained with dollars, generally speaking. France is short primarily in money. Britain is short primarily in manpower and materials, but its economy is going "full blast." The official figure at the end of June 1951 was only some 192,000 employed in a nation of 50 million; which would be equivalent to less than 600,000 in a country the size of the United States. Then when the schools were over for the term, unemployment rose to 215,000. Further, in Britain industrial workers were averaging 47.9 hours worked per week or about 18 percent more than we are working in this country on the average. The British limit is not as yet money; the limit is currently material and manpower.

In France and in Italy, orders and finance are two principal deterrents. Raw material is secondary in France but important in Italy. I have estimated offshore procurement could lift the industrial contribution of continental Europe in hard goods for armament to something in the neighborhood of 50 percent above what the Europeans are now producing. In that connection, we have to approach the offshore procurement problem, if we can do it, on a nonpolitical basis. If we insist on "renegotiation," on "no taxes being included," and a lot of those things which are not usual in Europe but which have political implications here in the United States, we reduce the speed with which we can operate; we make complications and change emphasis from the beneficial possibilities in the picture to political acceptabilities; I am afraid we may limit the ability with which we could effectively deal with Europe to our own advantage. Offshore procurement has potentialities of making a tremendous improvement in the situation particularly in promoting later self-sufficiency.

QUESTION: Mr. Herod, can we get you to consider standardization? I am interested in the problems of NATO in standardization to increase combat effectiveness, as well as maintenance of equipment when we get

# RESTRICTED

# RESTRICTED

1386

the total defense machine built up. Do you think it is feasible to tie standardization with offshore procurement and try to effect standardization in increased production as we go along? Do you think we could do that?

MR. HEROD: Yes, I think you can. I think some attention has to be given to the question of standardization, but I think we have to be a little less dogmatic about it. I believe we are inclined to think, because there are 100,000 jeeps running around in Europe, that it is better to have Fiat in Italy make parts for United States jeeps. Europeans generally speaking don't want only spare-parts business for American equipment. There's no "goodwill" for them in their markets there. Their trade name doesn't come out in that connection. It means a diversion of their engineers and shop people to the production of "oddlot" things, which doesn't make good production runs for them.

If we insist in our end item aid to Europe in making it a condition of our gift that we are only to give one year's spare parts which we make at the time we put through the end item through production, I think we will be doing ourselves a great disservice. You can't be dogmatic in regard to it. You have to look into each specific case.

With the high maintenance of aircraft, you have to have aircraft needs met there. If the Fiat Company, which in man-hours per automobile is just about as efficient for its volume as any automobile company in Europe--if it converts and tries to make spare parts for our jeeps instead of making Italian automobiles, it will take them 18 months before they can tool up. It will block out their manufacturing their ordinary car. And the result will be fewer vehicles at the front of a militarily acceptable type. From my conferences with the SHAPE people, I learned that although they have Italian vehicles, American jeeps, and British rovers, all of which are a little different in characteristics, they mostly want vehicles. I think it would be most ill advised, if because American manufacturers do not want to continue to operate their manufacturing lines for making spares, we should ask the Europeans over there, to make the parts as compared to longer initial runs here, when man-hours which it will take to produce the parts in Europe is excessively high, the runs small, the tooling and cost great with the preclusive effect of blocking out the production of things which they are capable of manufacturing. As I said, I think such is ill advised in that case. For vehicles such might not be the case in England where a spare-parts industry is set up, but on the Continent it is.

I have a feeling that what we have to do, is to carefully analyze the equipment requirements into those things we can feasibly expect from European industry.

QUESTION: Continuing on this offshore procurement: What opposition, if any, is being raised by American industry to our procuring equipment overseas rather than here?

# RESTRICTED

1007

MR. HEROD: General Gruenther made the statement not very long ago at a meeting in Paris in front of the Senate Committee that came over that SHAPE do not "G-2" any on Congress. I thought it was a very significant statement. I don't know the degree to which American business is exerting pressure if any. But I do know that, from the standpoint of the automobile industry, there are said to be 125,000 people out of work in Detroit, with the possibility of 200,000 being out generally. And that has been given as a reason, and understandably, that it will be difficult to place offshore procurement for automobiles in Europe. I likewise know that in the paper this morning, one of the unions has protested against placing orders abroad when there are people that could work here. There's no question in my mind but that there is a certain amount of pressure in that particular direction.

In ships it is definite, as you gentlemen in the Navy know, particularly in the smaller sizes. It is very difficult, though final approval, I understand, has been given to a certain number of ships being made under offshore procurement orders on the other side of the Atlantic. It was a long struggle to get that through.

Where you have unemployment here and where you have facilities, so far as each individual manufacturer is concerned, and an over-all limitation of materials to use for production here, it is difficult to divert a product abroad. It's the same thing in each country. We tell the French they should buy in or out of France. We may say they are not integrating. But we do the same thing.

I think very frankly, Colonel, the offshore procurement situation has tremendous potentialities. But there is definitely a reluctance, beyond the technical facility of having the procurement in your own country, to place business abroad. This will take a great amount of skill to get it effectively going.

COLONEL CAVE: Mr Herod, it would be a gross understatement for me to say you have done a splendid job. You have pulled this together beautifully for us. On behalf of the College and the students, I sincerely thank you, sir.

MR. HEROD: Thank you very much.

(9 Apr 1952--350)s/fl

RESTRICTED

1388