

COORDINATED PROCUREMENT

1311

12 January 1955

CONTENTS

	<u>Page</u>
INTRODUCTION--Brigadier General Urban Niblo, USA, Deputy Commandant, ICAF	1
SPEAKER--Colonel Willard F. Rockwell, Chairman of the Board, Rockwell Manufacturing Company and Rockwell Spring and Axle Company	2
GENERAL DISCUSSION	15

NOTICE: This is a copy of material presented to the resident students at the Industrial College of the Armed Forces. It is furnished for official use only in connection with studies now being performed by the user. It is not for general publication. It may not be released to other persons, quoted or extracted for publication or otherwise copied or distributed without specific permission from the author and the Commandant, ICAF, in each case.

Publication No. L55-80

INDUSTRIAL COLLEGE OF THE ARMED FORCES

Washington, D. C.

Colonel Willard F. Rockwell, Chairman of the Board, Rockwell Manufacturing Company and Rockwell Spring and Axle Company, was born in Boston, Massachusetts, 31 March 1888, and graduated from Massachusetts Institute of Technology, class of 1908. During World War I he served as a civilian specialist in the Motor Transport Division of the Office of the Quartermaster General, and continued as a Reserve officer consultant. During World War II he served as director of production of the U. S. Maritime Commission. In addition he served on the Executive Committee of the Army and Navy Munitions Board and on the War Production Board. In 1953 Colonel Rockwell was appointed special assistant to Harold Stassen, Mutual Security Agency, and later was transferred to serve as special assistant to Secretary of Defense Charles E. Wilson. He resigned late in 1953, after reporting on the European production situation and representing the Defense Department at NATO conference in Paris. He has also served the State of Pennsylvania in several capacities. The Rockwell Manufacturing Company with its subsidiaries constitutes the world's leading manufacturer of measurement and control equipment. The 1953 gross sales were \$83,301,000. The Rockwell Spring and Axle Company is one of the largest suppliers of parts to the automotive industry, with sales around 369 million dollars in 1953. Colonel Rockwell holds many other business directorships, is a member of many national organizations, and has received numerous awards in America and abroad for industrial achievement and active support of free enterprise. In 1953 he received an honorary LL.D. from Grove City College, Grove City, Pennsylvania, and a D.S. from Duquesne University. In 1954 he was elevated to the grade of Fellow in the American Society of Mechanical Engineers. He is the inventor of a number of engineering improvements for automotive vehicles and has contributed many technical articles to scientific journals. This is his first lecture at the Industrial College.

COORDINATED PROCUREMENT

1343

12 January 1955

GENERAL NIBLO: We are again fortunate this morning in having another speaker that is an outstanding member of that great American military-industry team to address us. His subject is also appropriate--"Coordinated Procurement."

Prior to World War II our speaker had established himself as a leader in the automotive industry. He also served as consultant to the then Motor Transport Division of the Office of the Quartermaster General. During the war he was a colonel in the Army and was closely associated with various ones of the Federal agencies that were set up during the war. He assisted them in developing and formulating a national policy for governing our coordinated war effort.

Since the war he has increased his prestige within the automotive industry. He has also served as special assistant to some of our outstanding national leaders in our Federal Government. Again he served them and assisted them in developing and formulating a national policy governing coordinated procurement in our Department of Defense (DOD).

From the purely commercial standpoint he fully understands and recognizes the economic value of good customer-dealer-industrial relationships. From the purely military standpoint he is a strong believer in coordinating the efforts of our "get-ums," I believe they call them, that is, the seven technical services, and the Navy bureaus, so as to get for both the most effective coordinated procurement from our, I believe they call them, the "make-ums," that is, industry, to give the best possible equipment to the "need-ums," the using troops.

Colonel Rockwell, you realize, of course, that you are now a member of the Industrial College faculty of guest speakers, in good standing, I should say, this morning. After the lecture we will determine that. It is a pleasure to welcome you to your first class at the Industrial College.

Ladies and gentlemen, Colonel Rockwell.

COLONEL ROCKWELL: General Niblo and gentlemen: For more than 40 years I have served intermittently in uniform or as a civilian consultant in the Armed Forces, under a wide variety of conditions.

In business circles we speak of the business cycle, and constantly study it in the hope that we can correctly forecast the next phase. In military circles there is a similar cycle, and its changing phases have an important bearing on procurement problems.

I think of our military cycle in these fairly distinct phases: The first is represented by any period when the world is at peace and many American citizens regard our Armed Forces as little more than a police force to protect American citizens traveling or living abroad. In that period our Armed Forces have as much trouble selling increased budgetary requirements to Congress as the businessman has in increasing his sales volume when supply and demand are in balance.

The second period occurs when war breaks out overseas between the great powers, and fear is aroused that we may be drawn into the conflict before essential military defense preparations can be completed. Congress then approves increased military budgets, even when it involves the pain of the public's resentment over higher tax bills. That corresponds to the period in business when competition is increasing and manufacturers must struggle to cut their costs and install better equipment, even though they find it necessary to borrow money to do so. That is always painful.

The third period may best be described as the panicky period, when, after we are plunged into war, the public, the Congress, and our military leaders worry over our capacity to match the military strength of our potential enemy in time to avoid calamity, which corresponds to the businessman's unenviable position when he discovers that his competitors are prepared to deliver, while he is caught short.

The fourth phase follows victory, when the gratitude felt toward our victorious forces is marred by widely publicized congressional investigations, seeking to find the culprits who accumulated obviously obsolete and surplus military supplies. That period corresponds to the inflationary business boom, with its appearance of prosperity, which inevitably explodes into over production, price-cutting, recession, and mutual recriminations between employers and unemployed, management and owners, businessmen, and politicians.

While the problems of business management vary in each phase of the business cycle, most businessmen who have participated in military affairs in each of the phases described will admit that the feast-or-famine phases of the military cycle are far more drastic and difficult to handle, and that military procurement problems in an all-out war effort exceed any war or peacetime industrial problem.

After World War I most of our citizens confidently believed that we had fought and won the war to end all wars; and the Armed Forces were again regarded as a police force requiring only minor consideration in the Federal budget. It was really inspiring during that period to watch the work of conscientious military men attempting to plan against every contingency and carry forward essential technical research as best they could with their limited resources; but when the depression was at its deepest point, it was positively painful to see the frustration which met every reasonable request for defense funds.

I was on active duty in 1934, when the military budget requests, which included such small carefully screened items as funds for absolutely essential repairs to prevent accelerated deterioration of barracks and officers' quarters, were not only turned down, but brought severe condemnation on the military budget officers by Congressmen whose mildest terms of reproach were to denounce them as thoughtless spendthrifts. Military men who commented that raking leaves was less efficient or productive than repairing structures which might eventually be required for national defense were either ignored or rebuked.

About that time Hitler and Mussolini commenced to rattle their swords; and, with each successive act of aggression, Congress increased military appropriations. When the European war broke out in 1939, Congress recognized the growing threat; and, as the war spread, the same Congressmen who had denounced military budget officers as spendthrifts in 1934, criticized them for underestimating the war danger in 1940. It may be some consolation to military men to be reminded that the senatorial committee which denounced steel companies' executives in 1938, claiming that they had overbuilt their capacity, thus increasing the unemployment and depression of that year, was the same senatorial committee which denounced the same steel executives in 1941 for not having expanded their capacity sufficiently to provide for the country's defense needs.

After Pearl Harbor, few Congressmen opposed any military appropriation requests; and the military procurement problem was no longer a question of how much money would be spent, but how much could be spent.

By mid-1944 military men and Congressmen were convinced that our military procurement had reached the highest peak of effective production and that the collapse of Germany and Japan was near at hand. However, the battle of the Bulge in December 1944 caused another panic in both the Pentagon and Congress; and, in January 1945 practically every manufacturer of military goods who had run out of orders was asked to get back into production, and, in most cases, at a much higher rate of production than he had ever reached before, only to be canceled out again a few months later.

With the end of World War II hostilities, it was generally recognized that military expenditures could not be reduced to prewar levels; and appropriations were sufficient to permit reasonable research activities, especially on nuclear weapons. By 1949 an Administration program for drastically cutting military expenditures was almost universally applauded, only to be followed by angry denunciation and dismissal of DOD officials when the Communist forces invaded South Korea. Our military machine had been partially liquidated, and there was no time for rehabilitation before active hostilities commenced.

No one in the Armed Forces procurement departments will soon forget the investigations which followed charges of an alleged ammunition shortage in Korea in early 1953. Some Ordnance officers worked seven days a week for months to provide answers to congressional committees' questions; but, in the end, it was impossible to place the blame on any single individual. The DOD records show that 13 billion dollars' worth of ammunitions was produced during World War II, of which more than half, or 7.5 billion dollars' worth, was placed in storage as a future war reserve, including specifically 18 million rounds of 105-mm. shells and 7 million rounds of 155-mm. shells. The Government had invested 3.5 billion dollars in new ammunition plant facilities during World War II, and most of the plants could have been put into production within six months after the outbreak in Korea. There can be no doubt that the ammunition facilities were available; and there is very little doubt that the ammunition was available, but someone had failed to deliver it where it was needed, possibly because someone else failed to foresee the need in time to transfer the ammunition from the zone of interior to the combat zone.

Any shortage of materiel in Korea could not be blamed on failure of Congress to appropriate sufficient funds, as a comparison of war-time appropriations and war-end inventories proves. Defense expenditures for the three years 1942 to 1944, inclusive, were 163 billion dollars, with 11 million men under arms, while defense expenditures during three years of the Korean War were 101 billion dollars, with obligational authority for another 155 billion, and only one-third as many men in the Armed Forces. Even a casual study of these expensive appropriation and expenditure figures must lead to the conclusion that another global war will end our way of life.

You have asked me to speak on the subject of "Coordinated Procurement"; and, in view of the fact that more than 45 percent of our country's gross national product was going directly into the military effort at the peak of World War II, it is apparent that coordinated procurement is essential to survival in an all-out war effort.

It is not too difficult to outline satisfactory organizational charts and procedures for a corporation which grows very rapidly; and no fundamental changes are necessary, if, during depression the volume of business shrinks. A temporary reduction in personnel may be unpleasant, but it reminds executives that they must trim off the fat and get in better condition to meet the next business phase. However, there are practically no parallels in private business corresponding to the decline in military activities during the peacetime depression recorded in 1934, or thereabouts, and the enormous expansion which reached its peak in the climax 10 years later in the all-out world war effort; and there is no perceptible basis for an opinion as to which way our military activities may move in the next few years. The best that can be hoped for in the practice of military procurement is to work out organizational plans and procedures in peacetime based on wartime experience, so that they will not be topheavy during a period of minimum military procurement, and yet so elastic that they can be expanded without exploding as we reach peak wartime military procurement.

During the Korean ammunition shortage investigation, the chief of Army Ordnance briefly and pointedly outlined problems of procurement in these three paragraphs:

"a. The basic factor in every large ordnance production program in peace and in war is the accurate and realistic computation of military requirements. . . . Requirements are met

either through the use of reserves or by new production. In any case, reserves and production must be sufficient at all times to meet requirements.

"b. The Chief of Ordnance of the Army, being the person who makes the contracts and spends the money, carries the major responsibility, but is not given commensurate authority for so vast an undertaking. Countless additional restrictions have been placed upon him, with the result that basic decisions which control the time required for full production are in the hands of military and civilian higher-ups who may not be familiar with the full impact of the time factor.

"c. Red tape - miles and miles of it - is still with us! The myriad laws of Congress which must be complied with relating to distressed areas, small business, big business, competitive bids, price determination, advance payments, etc., etc., etc., upon which are superimposed military regulations by the ton, call for a new look at this gigantic monster of organization so that it can be quickly simplified and streamlined. Authority to operate must be commensurate with responsibility for operation."

You will find that in "The Common Defense," published by the American Ordnance Association in May 1953.

Paragraph "a" states simply enough that someone has to forecast requirements; and at present that function is entirely in the hands of the DOD. Congress may cut down the estimates of the DOD or may insist that they be increased; but the DOD should clearly outline its requirements and just as clearly, for its own protection, record the changes made by higher authorities.

The second paragraph points out the restrictions placed on procurement chiefs. Legal restrictions should be constantly listed and studied, because they are frequently changed. Some are distinct handicaps to efficient procurement, and every procurement officer who is liable to be called before a congressional committee should be prepared to show their effect and explain why they should be eliminated.

There is no doubt that the so-called civilian higher-ups are not always familiar with either military procedures or military requirements; but, under our form of government, there is no way to change

this handicap. The difficulty mentioned regarding the military higher-ups who may not be familiar with procurement problems can certainly be alleviated in the DOD itself, because it is chiefly due to the rotation system.

In paragraph "c" the age-old subject of red tape is brought up. Some red tape can be eliminated in the DOD but much of it is necessary to furnish the millions of duplicated copies which are required by law, chiefly as safeguards for auditing, accounting, and investigating.

With reference to the laws relating to distress areas, small business, big business, and so on, the only hope of reducing those restrictions is to send DOD representatives before congressional committees who can clearly outline the difficulties introduced by the restrictions in such a way that the reasons for removing them will appeal to common sense. There is no doubt whatever that many industrialists have been so plagued by redetermination, renegotiation, duplicate inspections, and frequent changes in specifications that they do not want to bid on any DOD work in peacetime.

It is well remembered by industry that a congressional committee tried to prove that certain industrialists were primarily interested in promoting wars so that they could benefit by the production of military goods, and they labeled all such as "merchants of death." At least one great manufacturer of explosives for peacetime use refused to bid on contracts for wartime explosives, but patriotically offered to provide, without profit, the supervision, the facilities, and the experts needed to operate Government plants. If Congress continues to place handicaps on manufacturers who are willing to convert their peacetime plants to produce any wartime requirement, the result will be the establishment of more and more war supply plants which cannot survive unless there is a war. If a permanent munitions industry is established in this country, Congress will have to accept the blame.

Any manufacturer or association of manufacturers who appears before Congress to protest about these handicaps will be pilloried and publicized as warmongers and war profiteers. Therefore, it must be one of the principal interests of the DOD to convince Congress that we have no permanently established private munitions industry; and that, if our peacetime industries are to be converted to war plants as quickly and efficiently as they were in World War II, Congress must recognize the situation and cooperate.

In any analysis of military procurement, we must recognize that the best theory cannot be carried out if the conditions imposed forbid the best practices. Congress writes the laws which control all DOD activities, and Congress holds the whip hand through its power to control both activities and expenditures through specific Federal appropriations. Furthermore, Congress has the power to advance or retard the promotion of officers in the higher ranks, and no officer can overlook that factor when he is considering congressional suggestions or criticisms.

No advancement in either efficiency or efficacy of military procurement can be contrived by recounting here all the handicaps imposed by congressional action; but, on the other hand, it should be graciously acknowledged that Congress has occasionally prodded the services into constructive action, which was held up by interservice rivalries for many years.

Congressmen who serve for many years on armed services committees are sometimes more familiar with military procurement practices than recently rotated military officers who appear before them, which, unfortunately, sometimes results in sorry exhibitions which could, and should, be avoided for the good of all concerned. Some Congressmen have had long and successful business experience, and their advice should be sought, rather than regarded with suspicion or contempt.

There are several obstacles to a more perfect procurement program which can be removed by proper action within the DOD. First, some action should be taken to offset the feeling in the armed services that personnel engaged in supply or procurement services are in some way inferior to personnel assigned to combat services; or, expressed another way, that a good military man cannot, and will not, be tied down permanently to a desk job. As long as this feeling prevails, it will be difficult to get and hold the best-qualified personnel in procurement duties. If something is not done about this attitude and its handicaps, Congress may insist on placing more procurement activities in the hands of civilian agencies, one of which is General Services Administration (GSA).

Second, there is the interservice rivalry, which is so often the basic cause of congressional criticism. This sometimes ridiculous and sometimes dangerous rivalry has been exhibited in the operations

of the Munitions Board, which was established after World War I primarily to settle conflicting materiel and facilities claims of the three military departments. Excellent officers who have served on this Board have grimly admitted, when they were transferred, that appointment to the Board was considered either a demotion or a hazard that might delay or endanger future promotion. They knew that if they compromised or conceded anything to another service requiring the surrender of some previously held prerogative of their own service, they would be accused of disloyalty to their service or department.

During my World War II experience on the Executive Committee of the Munitions Board, whenever there was an important question of allocation, the Army and Navy representatives always seemed to have reached a compromise before the meeting; and, if the facility was not important to either, the Air Force received their support, while the Maritime Commission was seldom given any recognition over the other three departments unless the matter was so vital to Maritime that it could be referred to the highest authorities for final decision. This, unfortunately, generally resulted in political maneuvering which all concerned wanted to avoid. Though Army, Navy, and Air Force representatives readily agreed that they could not carry on their combat operations 2,000 to 10,000 miles away from the zone of interior without Maritime ships, they seldom agreed to allocate facilities or critical materials really essential to Maritime production if there was even the remotest possibility that a shortage might show up subsequently in their own department's requirements.

In the spring of 1944, for example, War Production Board (WPB) statistics indicated that there would be a slight surplus of steel plates and sheets, and the Material Requirements Committee of the WPB allocated the surplus to the Maritime Commission, subject to approval of the Executive Committee of the Munitions Board. At the hearings before that committee, Army representatives declared that they had just learned of a front-line shortage of gasoline containers, ranging from jeep cans to tanks for Army trucks. Everyone knew that command cars, trucks, tanks, airplanes, and powered watercraft could not operate without gasoline, and so there was no protesting when the steel was immediately allocated to the Army to meet the emergency.

However, just a few months later, there was such an embarrassing surplus of jeep cans that they were offered for sale to the public

by department stores and mail order houses; and even now, 10 years later, you will find some of the same surplus jeep cans on sale in the privately owned Army-Navy surplus stores in big cities all around the country.

The records show very clearly that when the war ended, the DOD had ordered, and American industry had produced, at least 100 per cent more of practically every kind of material than actually was used in the war. Even though Congress treats the Armed Forces in the most parsimonious manner during a period of depression, our military supply services are only furnishing more ammunition to economy-minded congressional opponents when they can be justly accused of using factors of safety for military materiel supply requirements which endanger the safety of our American economic system, not to mention overloading our taxpayers, among whom are included, incidentally, every man in or out of uniform.

In any all-out war effort, industrial manpower is the absolute limiting factor in overall military procurement. Therefore, any service which accumulates an unnecessary surplus, automatically creates a shortage of some other essential material. That is a military axiom which should be indelibly printed on every military officer's conscience. Unfortunately, the officer who ruthlessly piles up unnecessary requirements is seldom brought to task, while the individual who is accused of responsibility for a shortage is given the equivalent of a lynch trial. Unless it is recognized that every surplus creates a shortage somewhere, there is little hope for maximum efficiency in our time of greatest need.

Congressional committees have exposed many glaring examples of lack of coordination in the separate-service procurement of clothing, textiles, and footwear, which have caused waste, loss of time, and needless interference with industry activities. Incidentally, I consider the purchase of clothing, textiles, and so on, to be one of the most complicated kinds of procurement, because it involves so many restrictions which are so difficult to get around.

It cannot be denied that when one service felt that a congressional suggestion would reduce its activities and lead to enlargement of another service, the prospective loser has either brought up questionable objections or dragged heels, hoping the matter would be forgotten. This form of delaying action to avoid establishment of a coordinated

textile procurement agency ended suddenly in 1952, when Congress bluntly ordered the establishment of a joint agency and a single buying office, staffed by Army, Air Force, and Marine Corps officers, with an appropriate number of civilian personnel. The Armed Services Textile and Apparel Procurement Agency, known familiarly as ASTAPA, was set up on 1 October 1952; and, in a few months, demonstrated that it could operate with less manpower and less cost, because it was staffed by competent and experienced officers and commanded by a sincere and capable officer who was ambitious to show good results.

When these results brought about a shift of certain activities and payrolls from one congressional district to another, the congressional ax fell on ASTAPA; but by that time some of the service rivalries had been forgotten and there was general recognition of the improved practices. I wouldn't say that there was complete recognition of it, but, nevertheless, it was getting along rather smoothly. In the November-December 1954 "Quartermaster Review," there is an article which describes the reactivation of ASTAPA, with the changes required to meet congressional approval. It may well prove to be the happy compromise which will bring the best results in the procurement of any type of material which is used in large quantities by two or more services.

The Armed Services Petroleum Purchasing Agency (ASPPA), is another joint procurement agency which had a painful birth, but has worked so successfully to the benefit of all concerned in war and peace that it is doubtful if any would want to return to the old disjointed independent type of procurement. When the requirements necessitate buying, storing, and delivering petroleum products to the several services, which operate all over the earth and its seven seas, coordinated procurement is essential to efficient operations.

To the businessman whose success is scored by his ability to show a profit, it is shocking to see valuable time wasted in the discussion of relatively trivial subjects or in the continuous discussion of some problem which could be settled by a reasonable compromise. For example, it was reported to the Office of the Secretary of Defense in 1953 that, for 29 years, joint committees, consisting of Army, Navy, and Air Force officers, had failed to reach agreement on the adoption of a standardized system of mnemonic symbols for the purpose of identifying aircraft used by the three departments. During this period, one top board, consisting of general officers of the Army

and Air Force and flag officers of the Navy, was asked to settle the question; but even they never reached agreement.

During World War II the Douglas aircraft, which is now known throughout the world as the DC-3, was used by the Army, Navy, and Air Force, and each had one or more different sets of symbols, with various modifications to cover special detail construction or special uses. Whenever a civilian appointed to high office in the Pentagon encountered this web of confusion, another committee was selected to work out a solution, always with the same result--no agreement. When one officer of long service was asked why such a simple question could not be settled by a compromise, he said, with utmost frankness, that, in peacetime, officers in the armed services had only two jobs--to go to school or to work on committees--and if a committee settled the question of airplane symbols, it would only mean one less committee.

If there ever was a need for make-work projects in the famine years, the further development of nuclear weapons and the problems of defense against them, have inexorably removed it!

Now that our DOD is engaged in worldwide operations, and scientific, technological, and logistical problems have multiplied so fantastically, there is no longer any excuse for haggling over unimportant problems. In any great future emergency, it is unlikely that we shall find enough officer personnel to foresee and solve each and all of the military problems which will confront our country.

From a businessman's viewpoint, the most constructive step that could be taken to solve procurement problems permanently is to recognize that the successful military machine of the future must be composed of a vast number of specialists and proceed accordingly. In the early days of our military history, it was essential for every officer to be a jack-of-all-trades. He had to know how to forage for food, he had to be a gunsmith, he had to know the rudiments of surgery, navigation, civil engineering, and so on, ad infinitum. In the early days of American industry, the jack-of-all-trades was often the highest-paid man in the shop. But today, in "big business," the jack-of-all-trades (who is usually master of none) has necessarily been replaced by experts. Unless this need for specialists is recognized, the armed services cannot expect to develop the most efficient procedures or maintain its high position in developing better techniques.

A recently retired chief executive of a great American oil company, with worldwide operations, said that he had never presided over the monthly directors' meeting of his company without being asked for information about some multimillion-dollar property or some multi-million-dollar operation which had never before come to his attention, even though he had spent most of his life working for that one company. But you can bet that this executive knew where to find the answer among the many experts who were on his staff! Our DOD operations in procurement in several recent years have exceeded, from the financial standpoint, the combined operations of the 10 biggest industrial corporations in the world; and it is simply impossible to conceive of efficient operations on that scale without a plan for developing a permanent staff of specialists, each assigned to work continuously as an essential element in a well-planned and completely coordinated machine.

If the DOD concentrates on the development of experts, many of the restrictions imposed by congressional action can be eliminated. There is no more doubt about the patriotism of Congress than there is about the patriotism of the people they represent; and when they propose some restriction on procurement which handicaps or prevents the best practice, it is always permissible to send a group of experts to explain the requirements so clearly that dubious restrictions will be eliminated. The DOD will have no difficulty whatever in arranging and maintaining relations with industry so that independent outside technical experts can be brought before congressional committees whenever necessary to reinforce a reasonable DOD position.

You may have heard the old story about the man who remarked that there is just one way to handle women, which brought forth the reply that he was absolutely right; but that no man had yet discovered that one best way. I think that applies to your procurement problems.

The DOD has used five methods of procurement:

1. Utterly independent action by the individual armed services, which is now generally regarded as obsolete.
2. Informal collaboration and cooperation by two or more services. This method would certainly be successful for many requirements and would eliminate much congressional criticism if interservice rivalries are eliminated.

3. Joint coordinated procurement as practiced by ASTAPA, ASPPA, and ASMPA.

4. Use of single service as agent for procurement of articles of common use and some of the less technical requirements, which, if not generally adopted, may cause Congress to insist on more assignments to the GSA.

5. Use of the GSA to procure common-use, commercial-type items, such as office furniture and equipment, which are also required by practically all other Government agencies. It is just common sense to have a single Government purchasing agency for such items.

It would be presumptuous on my part to go into any further detail, because you have access to reports prepared by civilian committees composed of leading purchasing agents in private industry, at least one of whom gained his education and reputation as a professional military man and now holds one of the highest positions in the purchasing department of one of our largest American plants. You also have some very excellent reports written by your high officers, who, somehow or other, have been assigned almost continuously to procurement problems for the past 20 or 30 years.

A former Secretary of Defense gave me a list of reports on procurement made by outside experts, and expressed the opinion that the value was in inverse ratio to their cost to the Government. I assumed he meant that when the Government has paid for professional advice, it has required months of hard work by many young men to learn all of the restrictions and requirements on the DOD procurement, while the reports by committees of experts working without compensation have been prepared by a combination of businessmen and military officers, who, among them, had all the necessary experience to recommend the compromises which legal restrictions make necessary.

Wise men have said there are occasions when a bad decision is better than no decision at all. I think we have all seen such occasions. Many bad decisions may lead to better ones; but if you have no decision, there will be nothing done. If there is one best way to handle a given procurement problem, it will eventually be worked out by men of good will and good judgment, but experience proves that a better way will not produce better results if there is sullen opposition from the people who are responsible for its operation.

In conclusion, it is my opinion that the present personnel of the DOD has all the intelligence, experience, and common sense necessary to set up and operate efficient procurement organizations and procedures. The restrictions imposed by law can be reduced, if not eliminated, by developing your own experts, which requires continuous specialized service, constant contact with the many available civilian experts who gladly serve without compensation, and frequent visits to industrial plants for study and discussion. It is in your hands to wipe out interservice rivalries for the good of all the services; and to recognize and acknowledge the growing importance of procurement problems, which should earn highest respect for supply and procurement personnel, and the need for permanent assignments, because the mastering of military procurement problems is a most worthy lifelong project.

CAPTAIN GERWICK: We are ready for your questions, gentlemen.

QUESTION: Colonel Rockwell, I was very much interested in your comments on that ASTAPA. I believe you said something to the effect that Congress ordered the establishment of ASTAPA and that it eventually was abolished.

COLONEL ROCKWELL: I didn't say it was abolished.

QUESTION: I was in on that work as far as the Navy was concerned, working with ASTAPA. What it amounted to was, we were buying clothing and textiles with 17 civilians and 3 officers; but when our requirements in the budget were changed to 145 civilians and 13 officers, that is when ASTAPA got the ax.

COLONEL ROCKWELL: I think what had more to do with it than that was the fact that there were a thousand less civilian Government employees in one congressional district than another after ASTAPA was set up. But that is a difference of opinion.

QUESTION: Sir, I got the very definite feeling from your statement that, while savings might be made through coordinated procurement, you believe it is sort of a minor thing compared to a real defining of requirements; that the real savings would come about through a hard core of requirements that are not artificial or inflated. Would you summarize a little as to the importance of those two?

COLONEL ROCKWELL: I think the solution of procurement problems would be much easier if everybody was reasonable about their requirements. There is no question that in an all-out war--and I don't think we will have anything else the next time--we must make maximum use of all our facilities, to obtain all of our minimum requirements.

I don't think anybody will question the fact that in World Wars I and II, Germany did a wonderful job, with industry and the military working together. They were welded together, as you know, by force. Just compare what they did and what we did (they almost licked the world) and you see they could only have done what they did by a most careful study of their requirements, cutting them to fit relatively limited resources.

I talked with some military officers during World War II who were very much surprised when they captured a few German prisoners and found a truck that they were operating which contained accounting machines and a complete system whereby they checked on every round fired and recorded everything else they used. They were organized so that they would have all the amounts needed and practically no excess requirements. When you figure out what we produced during the war and remember that Germany couldn't possibly have equaled our industrial output, having nothing like the facilities we had in steel and so forth, you marvel at the Germans showing of strength. They trained out all the military and industrial fat for the grand finale.

So I do think that screening of requirements is absolutely essential. That old factor of safety--you know how that works. I was over in England where they had civilian clerks figuring out the number of rifles they would need. When the invasion came, they found that some landing forces lost all their rifles in three days, and they knew they couldn't procure enough for that type of war. The whole world couldn't produce enough rifles. So the screening of materiel requirements, I am sure is absolutely essential, because any excessive demand absorbs labor and materiel essential to other use or requirements.

I was talking to the Defense Minister of England and he asked me why we now are planning such vast amounts of ammunition for free Europe. I said: "If I had the answer, I wouldn't be in a position to give it to you. I would be very glad to present your views to my chief, so he can answer." He said: "In my opinion the next war will only

last 30 days. We will either win or lose in 30 days. Why do you want us to have three or four years' supply of conventional ammunition on hand? Maybe he is right; maybe he is wrong.

In any case, I am very sure that, if we want our economy to survive, we can't go on using this factor of safety in any such wild way as it has been used on past occasions.

QUESTION: Would you mind expanding on your preferences for either a fourth service--a logistic service or a joint service staffed by logistic officers of the other three--so that we could have specialization of procurement people within the framework of our present three services. What would be your preference among those two?

COLONEL ROCKWELL: I would certainly want to study and confer on such questions if I had to settle them. But I do believe that if you could set up a single service, it would stop this interservice rivalry, which I think must be eliminated.

Above all things, I do think you have to specialize. The Air Force recently had a very good officer studying titanium. I wanted to find out something about it, so I called him up. He said, "I won't be here very long. I am going over to Turkey to train Turkish flyers." He was the best available Pentagon expert on titanium, the new metal in plane design.

I don't think he should have been rotated at this time. All phases of titanium production and use are changing so rapidly that nobody knows just what will develop next. A year ago only one process of extracting it was generally used. But several of the big companies won't tackle titanium now because they are convinced that a very much cheaper method will be developed in the near future.

Anyhow, in private industry, when a young employee comes in, we do try him out in different jobs for a certain period. But once a man turns out to be a very good salesman, nobody says, "Let's try him out as purchasing agent or factory manager," because we know these are jobs which require specialization. You not only need education for them, but you need experience in them; and there is no substitute for experience.

You military people should realize that you are now operating the biggest business in the world. So, instead of private industry telling you how to buy, you should be able to tell us how to buy. Of course you can't use some of the best ways, because of the restrictions and handicaps imposed by Congress.

But there again I say that if you develop specialists, they can go to the Congress and tell why some restrictions are so harmful to proper procurement. There isn't any question now that many officers in the Armed Forces do not want to engage in procurement tasks. And that is a very unfortunate thing for everybody, because, we are all taxpayers and we like to see our money spent wisely.

QUESTION: Colonel Rockwell, one of our basic ideas in moving people around in the service is to train them for war. If we retain our personnel in jobs long enough for them to become proficient and entirely familiar with any job, it seems to me we are going to lose the flexibility that is necessary for war. It seems to me there ought to be more of a compromise there on this matter of keeping personnel in certain jobs. Would you comment on that?

COLONEL ROCKWELL: As I said before, I believe there is no best way. If there were, we would all be trying to do it that way. Nobody knows what is the best. In industry when we employ a graduate of a college or technical school, we move him around for the first five or six years to give him experience in our different departments, and in the different areas of our business. Eventually, they find what they like to do best and we find what kind of work they are best suited for. From that time on they become specialists.

But the fact that they become specialists doesn't prevent them from becoming head of the company eventually. I find in dealing with these enormous utilities that the head man usually has come up through some one line, and he doesn't know all about some of the other lines. He may have come up through accounting or financing or through the operating end. He knows a lot about one of these lines but doesn't know too much about others. You just can't expect one man to know everything. So the only hope we see in business, and the thing we do in business, is to develop specialists. Now, I don't see why you in the Armed Forces can't have your specialists and do the same thing--keep moving your specialists around where they can continue to learn about all these other things, as they pertain to his specialty.

One of the big criticisms by civilians has been your rotation system. A high officer is moved in to take charge of some special work. It takes him six months to find out what it is all about--in some cases a little longer. Then he knows that he is going to be rotated. So if it is going to take him two or three years to work out a better method, he may say, "I won't even start it." I have heard that said on several occasions. By the time he gets onto the job and makes up his mind how he would like to do it, he realizes that it is time for him to be moved to some other kind of work. Therefore you don't get the results that you can expect from people who are permanently assigned to a special type of work.

I don't know of any civilian who has come here from big business who didn't eventually make that criticism--that the rotation system has been carried to extremes. The best comparison I can make is that in the old days business had few technical graduates; we had jacks-of-all-trades. They did all of our experimental work. If something went wrong, we would call in the jack-of-all-trades. If we tried to develop something new, we had them do it. But if we want to carry on basic research and applied research now, it would be very difficult to do it successfully and economically, if we didn't develop specialists from our young college graduates.

QUESTION: I got the impression about big business that when a corporation gets big, there is a tendency for it to split up into separate divisions, to have a separate purchasing department, for instance, and more or less run that purchasing department as a corporation of its own. We in the armed services, the biggest corporation of all, seem to be going that way. Would you care to comment on that?

COLONEL ROCKWELL: You won't find any universally standard practice in big business. We were just talking a few minutes ago about steel. They have general provisions for the buying of steel in General Motors, but each of the production divisions buys its own steel. When we were talking about what the Armed Forces should do, I asked Secretary Wilson what he thought about that from his own experience in General Motors. "Well," he said, "our divisions practically all have established relations with some steel company which they have maintained for many years. During the war it was very essential to have that kind of relationship. In spite of all the restrictions that were supposed to be imposed in the law, those friendships were a great help."

So, many of our large operations do have their central purchasing agency. Our company has 40 plants and offices spread around the country. Our general office supervises all buying, but each one of our plants buys some types of steel not used by the others. Each of the divisions buys its own steel, under general office supervision.

In the automobile business, few outsiders realize that many of the assembly plants can only carry a seven-day inventory. So, you try to have means of getting in anything on short order or you are liable to be shut down. That is a day-to-day problem. In your case, where you are doing the world's biggest business, it is a little more difficult to handle the problem.

QUESTION: I gather from what you said that you think the purchase of such things as desks by the GSA for the Government is a good thing. Would it be unfair to say that you would not expect a very large industry to dignify such a thing as a desk by having it purchased by such a centralized procurement agency as GSA?

COLONEL ROCKWELL: I know the Air Force at Wright Field spent a very large sum of money studying the problem of stenographers' chairs and desks. I am very sure that in business, a big company, such as General Motors, each division does not devote a large amount of time to finding out the best type of chairs or desks for office employees. It is probable that each division consults with experts, makes a choice, and standardizes, until something better is developed. When you are buying any such common articles as that, even though there is no question that some people need different kinds of chairs, there is certainly no excuse for each service carrying on its own investigation to decide how they will buy and what they will buy. That is the kind of thing that sparks congressional criticism, and causes the public to say, "What is the matter with our Air Force buyers? Are they all crazy?"

COMMENT: I would like to say a little more about this specialization of personnel. I think one of the things that business fails to recognize is that the military services have worldwide commitments. Nobody likes to sit out in Korea for five years or to stay over in Germany for five years after a war. We have to rotate our people. Perhaps that is one of the reasons why we can't have specialized personnel--because we are always being called upon to fill those billets. If the State Department would reduce our worldwide commitments, it might better be possible for us to carry out what you emphasize.

COLONEL ROCKWELL: I am talking about specialization in procurement. There is no question that in the fighting forces you have to move your people around to give them all kinds of experience. But in procurement you have a different problem.

Right now I think titanium is a pretty good example. There are all kinds of technical and other problems. Some of the industries have put one man on the job of deciding how far they can go with titanium. It is as important in our industrial affairs as it is to the Army.

About three months ago the Pentagon had a problem with titanium; we tried to find out something about it. You can't find out much of anything very definite about it. Everybody agreed that titanium has some most desirable qualities. They were very certain it was a wonderful material and some day it would be available. I talked to some of the production people in Pratt and Whitney who said, "We are sure titanium is a metal we want, but we are also sure we are not going to design engines or anything else which require its use as long as you people don't know how much you are going to produce or when!

This is a typical example where the Air Force designers should have the best; but yet, not having the specialists--not having assigned people to follow up all the time, they are losing the benefits they might have gained through specialization. I think that is as good an example as we can find.

The Air Force should have specialists who can design better airplanes, through use of titanium. Pratt and Whitney don't want to start designing airplane engines requiring titanium unless they have a sure source of supply. As you know, in wartime you couldn't substitute something else for titanium, because it would be either heavier or it wouldn't have the other necessary characteristics. So there is no use designing these things for titanium until you have an assured source of titanium and a continuous supply.

QUESTION: The complexities of procurement are rather awe-inspiring to military people. I was interested in your concern with the effect on our potential of these restrictions in Government contracts, where you say that corporations are avoiding them. Have you noticed in your industry that corporations are actively not taking Government contracts?

COLONEL ROCKWELL: I am very sure of it. I find that many companies are very much dissatisfied about some of the things that follow Government contracts. As I say, Congress has been trying to pin labels of "warmonger and profiteers" on somebody in private industry. That makes it difficult for private industry to carry on war contracts with businesslike relations, and consequently we have less and less people who want military work.

I know on many occasions this has had a rather disastrous effect on obtaining competitive bids on military work. Military contractors often have trouble with unions who come in and demand higher wages under threats to shut down the plant. If that happens two or three times, and the military pressures management to yield, it can throw that plant out of its competitive position in its peacetime production.

I know several plants who are operating almost entirely on military work; and I happen to know that under present union contracts a man who is employed for just one year's work may be paid for over eight weeks that he doesn't work. He has a two-week paid vacation. He has 10 or 11 paid holidays, equivalent to a two-week paid vacation. He gets three weeks' sick leave with pay. When they started that three weeks' sick leave, it caused an epidemic, because everybody got sick for three weeks, so now the employer pays double to avoid it. He gets two weeks pay if he is laid off for any of many reasons. So private industry doesn't want to get into peacetime military contracts where the union can come in and say: "Now that you are on war work, you have to do this and this or we will shut the plant down."

Take these small plants. There was one of them making certain products the Army used during the war. The Army suddenly decided that it didn't want any more made. So it simply inspected, rejected, and discarded everything this manufacturer had made, and refused to tell him how any part of it could be salvaged. The manufacturer took quite a loss. Three times this company got Congress to pass a bill saying the manufacturer should be reimbursed. Three times the Army got the President to veto it. So I am sure the little manufacturer got a harsh deal.

Businessmen make similar costly mistakes. You have heard a lot in the last six months about big corporations which have been wondering where the discount houses obtain their supplies of cut-price goods. The discount houses are built up by these manufacturers

making too many cars, or appliances, or whatever it is--then forcing their dealers to take a larger inventory than they can sell to their customers. When the banker tells the dealer to reduce his bank loans, the surplus goes to the discount houses. So the very people who are wondering where the discount houses come from are the people who are creating them.

QUESTION: I have heard it said that industry is not too hard on each other in the matter of specifications. I think that is sort of a misnomer. Industry is pretty rough on industry. The military services are more lenient than industry in many instances. Isn't that so?

COLONEL ROCKWELL: That depends on who you are dealing with. In dealing with the big companies, usually if they find that something is faulty, they will say, "If you will do so-and-so, we will take it." If you don't meet the specifications initially and they don't give you a chance to meet them, you say, "I won't deal with them any more. They are too rough."

QUESTION: Pursuing this matter of specialization a little further, if we agree about specialists, shouldn't we also develop along with specialists, generalists? In your outfit, in which I have a small but very personal interest, do you develop generalists who help the experts interpret things, who work with one another to coordinate their efforts?

COLONEL ROCKWELL: We have a number of small companies which we have merged into a big company. Many of these little companies operate with their own men. But when they get down to complicated tax questions, legal questions and so on, the little independent fellow does have to be a jack-of-all-trades. He can't afford to hire all kinds of experts, as the big companies can. So he has to know a lot of those things. He can't know them all, and he just loses a certain amount of money by what he doesn't know.

We have a general plan of education. I look over many company reports, and I see that some waste considerable amounts of money because they don't know how to handle tax problems. Probably on your personal income tax return, somebody may tell you how to save some money. You see a specialist and you find out how to do it. I know dozens of small companies who occasionally hire experts to go over their methods and show them where they can save. But we have our top specialists in the main office. So our small subsidiary

companies get the benefit of top specialists, even though they are not big enough to employ such specialists on their small staff.

There is no reason why you should not accumulate all the experience you want in the fighting forces, by moving officers around, and certainly procurement is one of the things that they should know something about. But so many things in big industry become so important to your success, you are forced to develop specialists in some of them. As I said before, there is no substitute for experience. Many of your procurement problems are so involved that no man should be ashamed to spend his lifetime trying to solve them.

Every year you think you have something on a solid basis, and then something new is developed and you have to learn all over again. When I was in technical school 40 years ago, the greatest scientists in the world agreed that the atom was the smallest indivisible particle of matter. If you made that statement today, you would be ridiculed, because even high school students know better.

So with the widely varied technical problems that you have, I don't see how you can ever hope to solve them unless you have specialists; I think that is especially true in procurement.

QUESTION: I have always been under the impression that the military endeavored to achieve continuity of experience through its civilian civil service employees. If we are not getting it, is it possible that it is the civilian civil service setup that is not very healthy, rather than the rotation system?

COLONEL ROCKWELL: Well, I would say that the chief difficulty with your civil service specialists is that they don't get very high up in Government service compared to what they do in industry. When they get to be recognized experts, industry "steals" them away from you. And it will continue to do it, too!

There are other things that you in procurement ought to check up on. Prior to the war our company had a plant out on the west coast which was recognized as one of the best-operated plants out there. But there was a big dealer who used to sell machinery to us and knew all our executives. He raided our executive staff when he got into war work. You probably know who I mean. About that time the Government had passed a law that said we couldn't raise the salary of any

man who worked for us. So it made it very simple for the ex-machinery dealer who turned war contractor. He went to our plant and offered everybody 100 percent or more than we were paying them, and we were not permitted to offer them a dollar more to stay with us! He just raided our plant, cleaned it out. Still our product was as essential to war work as his product.

That is the kind of thing you need procurement specialists for-- to go to Congress and say: "This thing should be stopped. You should set up rules which will prevent a war contractor from raiding other plants and which are going to do war work just as essential as the work that he is doing."

There are so many facets to this procurement problem that I don't think you can ever solve it unless you build up a corps of specialists. My impression, when I was in the Pentagon working with the Navy, was that they had pretty well established that fact; and they were recognizing a little bit more than any of the other departments that they had to have specialists.

But I think that eventually in all phases of procurement, especially something which has technical requirements, you must arrange to have a corps of specialists. And I don't think there is any reason for having to send them all over the earth. They may have to go to some parts of the earth, the same as the automobile engineers do, who go from the tropics to the cold countries to find out how automobiles work under many different conditions. But procurement should be a lifetime job, as I see it.

CAPTAIN GERWICK: Our allotted time is up. On behalf of the Commandant, thank you very much.

COLONEL ROCKWELL: There are many other business people like myself who would be glad to come down any time you want them to. As I said before, if there is one best way, we would all be doing it that way. We are just doing the best we know how.

(1 Mar 1955--250)S/ekh