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R. A. Spruance

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ADDRESS

DELIVERED BY ADMIRAL R. A. SPRUANCE, U.S.N.

AT COMMENCEMENT

WORCESTER POLYTECHNIC INSTITUTE

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TODAY I AM GOING TO TRY TO GIVE THE MEMBERS OF THE GRADUATING CLASS THE BENEFIT OF A FEW OF THE THINGS I HAVE LEARNED FROM FORTY-FIVE YEARS IN THE NAVY. MY ACTIVE NAVAL SERVICE IS ABOUT TO TERMINATE THROUGH RETIREMENT, JUST AS YOU ARE ENTERING UPON YOUR OWN PROFESSIONAL CAREERS.

BEFORE TELLING YOU SOME OF THE THINGS THAT I HAVE LEARNED, PERHAPS IT WILL BE ADVISABLE FOR ME TO GIVE YOU A BRIEF DESCRIPTION OF A NAVAL OFFICER'S BASIC EDUCATION AT THE NAVAL ACADEMY WHEN I WAS A MIDSHIPMAN, AND THEN TO INDICATE THE GENERAL LINES WHICH MY SERVICE FOLLOWED SINCE GRADUATION. WITH THIS BACKGROUND YOU WILL BE ABLE TO JUDGE BETTER HOW APPLICABLE MY IDEAS MAY BE TO THE CAREERS WHICH YOU ENVISAGE FOR YOURSELVES.

WHEN I WAS A MIDSHIPMAN, THE NAVAL ACADEMY EXISTED -- AS IT EXISTS TODAY -- TO SELECT AND TRAIN NAVAL OFFICERS. IT GAVE US A TECHNICAL EDUCATION WITH A CONSIDERABLE BACKGROUND OF ENGINEERING, BUT IT DID NOT ENDEAVOR TO DO MUCH ALONG THE LINE OF THE LIBERAL ARTS. IN OUR NORMAL DAILY ROUTINE, STARTING WITH REVEILLE AT 6 A.M. AND ENDING WITH TAPS AT 10 P.M., THERE WAS NOT MUCH SPARE TIME FOR PURELY CULTURAL MATTERS.

AFTER A LITTLE OVER THREE YEARS OF THIS ACADEMIC WORK, INTERSPERSED WITH A THREE MONTHS' PRACTICE CRUISE DURING THE SUMMER -- WHICH WAS FOLLOWED AND HIGH-LIGHTED BY ONE MONTH OF SEPTEMBER LEAVE --, CAME GRADUATION AND ORDERS TO SEA. EXCEPT FOR THE MILITARY DRILLS AND DISCIPLINE AND THE SUMMER PRACTICE CRUISES, I DO NOT BELIEVE OUR EDUCATION AT THE NAVAL ACADEMY DIFFERED GREATLY IN GENERAL QUALITY FROM THAT GIVEN BY MOST TECHNICAL IN-

STITUTIONS OF THE DAY.

IN MY FIRST TWENTY YEARS OF SERVICE AFTER GRADUATION I DID A GREAT DEAL OF ENGINEERING DUTY. THEN, AS I DID NOT REQUEST ENGINEERING DUTY ONLY, I FOUND MYSELF PERFORMING OTHER GENERAL LINE DUTIES. OF THESE LATER YEARS, I WAS FORTUNATE ENOUGH TO SPEND SIX AT THE NAVAL WAR COLLEGE BEFORE WORLD WAR II AND TWO MORE SUBSEQUENT TO IT.

WITH THESE EIGHT YEARS AT THE NAVAL WAR COLLEGE STUDYING WAR, AND WITH NEARLY FOUR YEARS SPENT IN THE PACIFIC DURING THE LAST WAR BOTH STUDYING AND PRACTICING IT, I FEEL THAT I HAVE ACQUIRED A FAIR KNOWLEDGE OF THAT ANCIENT AND HONORABLE ART.

THE FOREGOING WILL GIVE YOU THE BACKGROUND OF EXPERIENCE FROM WHICH TODAY -- AT THE END OF MY ACTIVE NAVAL CAREER -- I SHALL TRY TO PRESENT TO YOU SOME OF THE THINGS I HAVE LEARNED, WHICH, I HOPE, MAY BE OF SOME HELP TO YOU GENTLEMEN WHO ARE JUST STARTING YOUR WAY UP IN THE WORLD.

FIRST, I WANT TO SAY SOMETHING ABOUT YOUR MENTAL OUTLOOK ON LIFE. YOU HAVE JUST FINISHED A STIFF COURSE OF EDUCATION, AND PROBABLY MANY OF YOU WOULD LIKE TO CLOSE YOUR BOOKS, KICK UP YOUR HEELS FOR A WHILE, AND THEN GO TO WORK WITH THE COMFORTABLE FEELING THAT, EXCEPT FOR WHAT YOU WILL LEARN IN EVERY DAY LIFE, YOUR EDUCATION HAS BEEN COMPLETED.

I DOUBT IF THERE IS IN THE WORLD TODAY ANY FIELD IN WHICH RAPID PROGRESS IS NOT BEING MADE. THOSE PERSONS WHO FAIL TO KEEP ABREAST OF THE BEST MODERN THOUGHT IN THEIR CHOSEN FIELD ARE NOT GOING TO BE IN THE FOREFRONT OF THEIR PROFESSION. THEY ARE

APT TO FIND THEMSELVES GETTING MENTALLY FOSSILIZED AND SLIPPING FURTHER AND FURTHER BEHIND THEIR CONTEMPORARIES. OFTEN, INDIVIDUALS OF THIS TYPE TEND TO BLAME EVERYONE EXCEPT THEMSELVES FOR THEIR FAILURE TO KEEP UP WITH THE PROCESSION.

I KNOW, FROM PERSONAL EXPERIENCE, THAT WHAT I SAY IS PARTICULARLY TRUE OF THE ENGINEERING PROFESSIONS. FOR THE PAST TWENTY YEARS, WHILE I HAVE RETAINED MY INTEREST IN NAVAL ENGINEERING MATTERS, I HAVE HAD LITTLE TIME FOR STUDY ALONG THESE LINES AND I FIND MY KNOWLEDGE BECOMING MORE AND MORE OUT-OF-DATE. THE OLD BASIC PRINCIPLES MAY HOLD TRUE, BUT THE DEVELOPMENT AND APPLICATION OF THESE PRINCIPLES TO THE ENGINEERING PLANT OF A MODERN SHIP HAVE OFTEN LEFT ME FEELING WORFULLY IGNORANT, WHEN I HAVE GONE BELOW TO INSPECT. THE ENTIRELY NEW FIELDS OPENED UP BY SCIENTIFIC RESEARCH -- OF WHICH ELECTRONICS IS ONE PROMINENT EXAMPLE TODAY -- REQUIRE CONSTANT STUDY, IF ONE IS TO KEEP ABBREAST OF THEM.

ON THE OTHER HAND, WHILE IT IS ESSENTIAL FOR YOU TO KEEP UP-TO-DATE IN THE LINE OF YOUR CHOSEN PROFESSION, I THINK IT IS MOST DESIRABLE FOR YOU TO RETAIN AND TO STIMULATE YOUR INTELLECTUAL CURIOSITY IN OTHER FIELDS IN WHICH YOU MAY HAVE A NATURAL INTEREST. ONE ADVANTAGE ACCRUING TO THOSE WHO ARE ABLE TO RECEIVE A LIBERAL COLLEGE EDUCATION IN CONTRADISTINCTION TO THOSE OF US WHO HAVE HAD ONLY A TECHNICAL EDUCATION, IS THAT THE FORMER MAY HAVE OPENED TO THEM MANY CULTURAL FIELDS, SUCH AS LITERATURE, ART, MUSIC, WHICH, IF THEY ARE SO INCLINED, THEY CAN FOLLOW IN LATER YEARS. A KNOWLEDGE AND APPRECIATION OF THESE SUBJECTS ENRICHES THEIR LIVES AND MAKES THEM MORE INTERESTING

INDIVIDUALS TO THEIR FRIENDS AND ACQUAINTANCES.

THERE IS ANOTHER SIDE OF MODERN LIFE WITH WHICH, I THINK, IT IS ESSENTIAL FOR EVERY WELL EDUCATED CITIZEN OF THE UNITED STATES TO BE FAMILIAR. THIS IS THE BROAD FIELD OF GOVERNMENT. IT STARTS WITH OUR LOCAL GOVERNMENTS, AND PASSES THROUGH OUR STATE AND FEDERAL GOVERNMENTS INTO THE FIELD OF INTERNATIONAL RELATIONS. THE POSITION OF THE UNITED STATES IN THE WORLD TODAY HAS BROUGHT US MANY NEW AND GRAVE PROBLEMS WHICH REQUIRE SOLUTION. AN INCORRECT SOLUTION OF OUR INTERNATIONAL PROBLEMS MAY OFTEN LEAD TO THE GRAVEST CONSEQUENCES FOR OUR COUNTRY. REACHING A CORRECT SOLUTION INVOLVES A KNOWLEDGE OF THE BASIC FACTS INVOLVED AND AN APPRECIATION OF THE LONG-TERM INTERESTS OF THE UNITED STATES. IN A COUNTRY SUCH AS OURS, WITH A DEMOCRATIC GOVERNMENT BASED ON UNIVERSAL SUFFRAGE, THIS MEANS THAT OUR FOREIGN POLICIES CANNOT BE EXPECTED TO BE VERY FAR IN ADVANCE OF THE THINKING OF THE MAJORITY OF THE VOTING POPULATION. IF OUR GOVERNMENT IS TO ACT IN THE FIELD OF FOREIGN AFFAIRS IN CONSONANCE WITH THE SPEED AT WHICH THINGS ARE PROCEEDING TODAY, THIS REQUIRES A CONSTANT AND CONTINUING EFFORT TO KEEP OUR PEOPLE INFORMED OF WHAT IS GOING ON OUTSIDE OF THE UNITED STATES. THEY MUST BE MADE TO REALIZE ALONG WHAT LINES OF FOREIGN POLICY THE REAL INTERESTS OF THE COUNTRY LIE. THOSE OF OUR CITIZENS WHO HAVE BEEN SO FORTUNATE AS TO BE BORN WITH A SUPERIOR MENTAL EQUIPMENT, AND THEN TO HAVE HAD THE OPPORTUNITY TO DEVELOP THIS MENTAL EQUIPMENT BY A HIGHER EDUCATION, HAVE A SPECIAL DUTY TO KEEP THEMSELVES WELL INFORMED ON WORLD AFFAIRS AND THEN TO HELP

EDUCATE AND GUIDE THE REST OF THE COUNTRY.

THE IMPORTANCE OF HIGH QUALITY, BOTH OF CHARACTER AND ABILITY, IN OUR ELECTED AND APPOINTED OFFICIALS IS A MATTER WHICH NEEDS NO STRESSING. NO GOVERNMENT CAN RISE MUCH ABOVE THE LEVEL OF THE MEN IN THE KEY POSITIONS WHO CONDUCT IT. IF WE HAVE A STRONG AND INTELLIGENTLY RUN FEDERAL GOVERNMENT, SUPPORTED BY ABLE AND HONEST STATE AND MUNICIPAL ADMINISTRATIONS, WE SHALL HAVE THE NECESSARY FOUNDATION FOR THE SUPPORT OF OUR RESPONSIBILITIES IN THE CONDUCT OF OUR INTERNATIONAL RELATIONS. YOU GENTLEMEN WILL HAVE A SPECIAL RESPONSIBILITY, BECAUSE OF THE EDUCATIONAL OPPORTUNITIES THAT HAVE BEEN YOURS, TO TAKE SERIOUSLY YOUR CIVIC DUTIES IN THE COMMUNITY AND THE STATE IN WHICH YOU WILL RESIDE.

FOR THE YOUNG GRADUATE OF A CIVILIAN ENGINEERING SCHOOL ENTERING HIS FIRST EMPLOYMENT AND FOR THE YOUNG NAVAL OFFICER REPORTING FOR DUTY ON BOARD HIS FIRST SHIP, THERE IS ONE PROBABLE DIFFERENCE. THIS LIES IN THEIR RESPECTIVE RESPONSIBILITY FOR AND AUTHORITY OVER OTHER MEN IN THEIR ORGANIZATIONS.

THE YOUNG NAVAL OFFICER IS FIRST ASSIGNED AS A JUNIOR OFFICER OF A DIVISION. THE DIVISION MAY BE COMPOSED OF AS MANY AS A HUNDRED ENLISTED MEN, BOTH PETTY OFFICERS AND NON-RATED MEN, AS WELL AS SEVERAL OFFICERS. AS A JUNIOR OFFICER, HE COMES DIRECTLY UNDER HIS DIVISION OFFICER, WHO ASSIGNS HIS DUTIES, GUIDES AND DIRECTS HIM. AFTER PERHAPS TWO YEARS AS A JUNIOR OFFICER, HE MAY EXPECT HIMSELF TO BE MADE A DIVISION OFFICER. THEN HE ASSUMES FULL RESPONSIBILITY FOR ALL OF THE OF-

FIGERS AND MEN OF HIS DIVISION, FOR THEIR PERSONAL APPEARANCE, FOR THEIR BEHAVIOR AND WELFARE, FOR THEIR EFFICIENCY IN OPERATING THE GUNS OR MACHINERY ASSIGNED TO THEM, AND FOR THE UPEER AND CLEANLINESS OF THEIR PART OF THE SHIP.

IF HE IS TO BE SUCCESSFUL, AN OFFICER SOON LEARNS THAT THE SELECTION, CARE AND TRAINING OF HIS PERSONNEL IS ONE OF HIS MOST IMPORTANT DUTIES. HE MUST STUDY THE INDIVIDUAL CAPABILITIES OF HIS MEN, PLACE THEM IN THE POSITIONS FOR WHICH THEY ARE BEST FITTED, AND ENCOURAGE THEM TO STUDY AND PREPARE THEMSELVES FOR ADVANCEMENT. SINCE GOOD PETTY OFFICERS ARE THE BACKBONE OF A GOOD SHIP, THE SELECTION OF THE BEST MEN FOR PROMOTION TO THE VARIOUS PETTY OFFICER GRADES IS MOST IMPORTANT.

AN OFFICER MUST ALSO LEARN HOW TO FUNCTION AS A MEMBER OF A LARGE ORGANIZATION. IN HANDLING THE WORK OF HIS DIVISION, HE SHOULD WORK THROUGH HIS PETTY OFFICERS, ASKING FOR THEIR IDEAS AND THEIR ADVICE AND USUALLY FINDING THAT THEY HAVE MUCH TO OFFER. WHEN DEALING OUTSIDE OF HIS OWN JURISDICTION, HE MUST LEARN THE ORGANIZATION OF THE SHIP AND BE CAREFUL NOT TO OFFEND THE SENSIBILITIES OF OTHERS IN THE CHAIN OF COMMAND BY GOING OVER THEIR HEADS, WHEN HE SHOULD GO TO OR THROUGH THEM.

I DOUBT IF MOST YOUNG TECHNICAL GRADUATES ARE, SO EARLY IN THEIR CAREERS, PLACED IN POSITIONS WHERE THEY HAVE SUCH INTIMATE CONTACTS WITH PERSONNEL PROBLEMS AND SO MUCH RESPONSIBILITY FOR THE SELECTION, TRAINING AND WELFARE OF THE INDIVIDUAL MEN WHO ARE WORKING WITH AND FOR THEM, AS HAS THE YOUNG NAVAL OFFICER.

FROM MY OWN EXPERIENCE I BELIEVE THAT THE ABILITY TO UNDER-

STAND THE INDIVIDUALS WHO ARE WORKING FOR YOU, AND TO EVALUATE AND GET THE MOST OUT OF THEIR CAPABILITIES, IS OF PRIME IMPORTANCE.

THIS ABILITY TO UNDERSTAND OTHER HUMAN BEINGS IS SOMETHING WHICH WE ALL HAVE TO A GREATER OR LESS DEGREE. LIKE NEARLY EVERY OTHER QUALITY, IT IS SOMETHING WE CAN CULTIVATE AND IMPROVE WITH PRACTICE. NEVERTHELESS, SOME PERSONS HAVE THIS FACULTY TO A MUCH HIGHER DEGREE THAN OTHERS. THEY ARE BORN WITH IT, JUST AS SOME PERSONS ARE BORN WITH A NATURAL TALENT FOR MUSIC, ART OR LITERATURE. THEY SEEM TO HAVE A NATURAL INSTINCT THAT ENABLES THEM TO PERCEIVE ANOTHER MAN'S CHARACTER AND CAPABILITIES. IN BUILDING OR MANNING AN ORGANIZATION, THIS TALENT FOR GETTING THE RIGHT MEN IN THE RIGHT PLACES IS MOST IMPORTANT.

PROBABLY IN LARGE BUSINESS ORGANIZATIONS -- CERTAINLY IT IS SO IN THE NAVY -- THE FIELD IN WHICH MOST INDIVIDUALS CAN SELECT THEIR SUBORDINATES IS VERY LIMITED. IN MOST CASES WE HAVE TO TAKE OVER AND TO USE THE HUMAN MATERIAL MADE AVAILABLE TO US BY OTHER AGENCIES. AS CAPTAIN OF A LARGE SHIP, FOR INSTANCE, A NAVAL OFFICER HAS TO UNDERSTAND AND TO MAKE THE MOST OF THE OFFICERS AND MEN SENT TO THE SHIP BY THE NAVY DEPARTMENT. ONLY RARELY DOES HE HAVE ANY VOICE IN THEIR ORIGINAL SELECTION. EVEN MORE RARELY WOULD HE FEEL JUSTIFIED IN ASKING FOR THE DETACHMENT OF AN OFFICER WITH WHOM HE WAS NOT SATISFIED.

UNDER THESE CONDITIONS, OUR ABILITY TO RECOGNIZE EACH MAN'S CAPABILITIES AND HIS LIMITATIONS BECOMES VERY IMPORTANT, IF WE ARE TO GET THE MOST FROM OUR ORGANIZATION. IF WE PLACE THE

THE SQUARE PEGS IN SQUARE HOLES AND THE ROUND PEGS IN ROUND HOLES, WE SHALL BE ABLE TO STAFF OUR ORGANIZATION TO THE BEST ADVANTAGE. THEN, BY PERCEIVING LATENT CAPABILITIES IN TALENTED INDIVIDUALS AND ENCOURAGING THEIR DEVELOPMENT, WE SHALL BEGIN TO MAKE PROGRESS.

THE REVERSE OF THIS IS AN UNDERSTANDING OF THE LIMITATIONS WHICH NATURE HAS IMPOSED ON NEARLY EVERY ONE OF US IN GREATER OR LESS DEGREE. SOMETIMES THESE LIMITATIONS ARE CAUSED BY ONE'S MENTAL EQUIPMENT, SOMETIMES BY PHYSICAL HANDICAPS, SOMETIMES BY WEAKNESSES OF CHARACTER OR TEMPERAMENT. IF, BY ADVICE AND ENCOURAGEMENT, A MAN CAN BE INDUCED TO OVERCOME HIS LIMITATIONS, SO MUCH THE BETTER; BUT SOMETIMES THESE LIMITATIONS ARE INHERENT IN A MAN'S MAKE-UP, AND CAN NO MORE BE CHANGED THAN THE COLOR OF HIS EYES.

PHYSICAL HANDICAPS ARE USUALLY OBVIOUS, BUT THE HANDICAPS INHERENT IN A MAN'S MENTAL PROCESSES OR IMPOSED BY HIS TEMPERAMENT OR CHARACTER ARE USUALLY LESS SO. THESE LATTER APPEAR ONLY AFTER A PERIOD OF PERSONAL OBSERVATION, ALTHOUGH SOMETIMES THEY CAN BE SENSED, AS IF BY INSTINCT, ON FIRST CONTACT.

AS A RESULT OF MY EXPERIENCE AT THE NAVAL WAR COLLEGE, I HAVE COME TO THE CONCLUSION THAT IMAGINATION AND REASONING POWER ARE DEFICIENT IN MANY INDIVIDUALS. WHEN THESE QUALITIES ARE LACKING, NO AMOUNT OF STUDY AND TRAINING WILL CAUSE THEM TO APPEAR AND GROW. THERE ARE MANY MORE INDIVIDUALS WHO HAVE THE ENERGY AND INDUSTRY TO GRASP THE IDEAS THAT SOME MORE CREATIVE MIND HAS PRODUCED, THAN THERE ARE WHO CAN THEMSELVES PRODUCE SOMETHING ORIGINAL. IF IMAGINATION, TEMPERED AND GUIDED BY

COMMON SENSE AND REASON, IS THE SCARCE AND VALUABLE QUALITY WHICH I BELIEVE IT TO BE, IT BEHOOVES US TO RECOGNIZE THE INDIVIDUALS WHO POSSESS THIS DISCIPLINED IMAGINATION, TO ENCOURAGE AND MAKE FULL USE OF THEM.

THE PROBLEMS OF WAR ARE DIFFERENT FROM THE PROBLEMS OF PEACE, BUT I BELIEVE THAT THE SUCCESSFUL CONDUCT OF WAR CONTAINS MANY LESSONS WHICH MAY BE APPLICABLE TO A CIVILIAN CAREER.

IN A FIGHTING ORGANIZATION THE WILL TO FIGHT IS OF PRIMARY IMPORTANCE. EVERYONE IN THE CHAIN OF COMMAND MUST KNOW WHAT HE IS TRYING TO ACCOMPLISH, AND HE MUST HAVE THE DETERMINATION OF CHARACTER TO CARRY THROUGH IN SPITE OF OBSTACLES AND OPPOSITION. THE ABILITY TO DISTINGUISH ESSENTIALS FROM NON-ESSENTIALS, TO GRASP QUICKLY THE ELEMENTS OF A CHANGING SITUATION, AND THE INSTINCTUAL FORTITUDE TO KEEP COOL AND TO CONTINUE FIGHTING WHEN THE GOING GETS TOUGH, ARE REQUIRED IN THE SUCCESSFUL WAR COMMANDER. IN CIVILIAN LIFE THE INTELLIGENCE TO UNDERSTAND CLEARLY WHAT IS TO BE ACCOMPLISHED AND THE DETERMINATION OF CHARACTER REQUIRED TO CARRY IT OUT IN SPITE OF OBSTACLES SHOULD BE AS IMPORTANT AS THEY ARE IN WAR. INTELLIGENT DETERMINATION, I MIGHT CALL THIS.

MODERN WAR OPERATIONS REQUIRE A TREMENDOUS AMOUNT OF DETAILED PLANNING. THIS PLANNING IS LIKE PUTTING TOGETHER A COMPLICATED JIG-SAW PUZZLE. EACH DETAIL MUST FIT INTO ITS PROPER PLACE IN THE OPERATION PLAN, AND THERE MUST BE NO HOLIDAYS, IF THE PICTURE IN THE MIND OF THE HIGH COMMAND IS TO COME OUT COMPLETE.

IN THE PROCESS OF PREPARING A PLAN, THE FIRST REQUIREMENT IS AS FULL AND ACCURATE INFORMATION OF ALL THE FACTS INVOLVED, AS IT IS POSSIBLE FOR US TO OBTAIN. IN MILITARY OPERATIONS THERE ARE ALWAYS SO MANY THINGS WHICH REMAIN EITHER UNKNOWN OR INACCURATELY KNOWN THAT GOOD INTELLIGENCE OF THE ENEMY IS ALWAYS OF VITAL IMPORTANCE. I BELIEVE IN SOLVING THE PROBLEMS OF CIVILIAN LIFE A SIMILAR BRINGING TOGETHER OF ALL THE PERTINENT FACTS SHOULD BE A FIRST STEP. WITH THE PROBLEM ITSELF CLEARLY DETERMINED -- THE MISSION IN MILITARY PARLANCE -- AND THE FACTS BEARING ON THE PROBLEM ASSEMBLED AND ASSIMILATED, WE ARE IN A POSITION TO PROCEED WITH THE SOLUTION.

DURING THE WAR I WAS ALWAYS IMPRESSED WITH THE NECESSITY OF KEEPING AN OPEN MIND AND OF BEING RECEPTIVE TO THE IDEAS OF OTHERS. WE STUDY MILITARY HISTORY FOR THE LESSONS IT HAS TO TEACH US, BUT WE MUST NOT EXPECT NECESSARILY TO OBTAIN FROM HISTORY THE CORRECT ANSWERS TO FUTURE PROBLEMS. SITUATIONS RARELY REPEAT THEMSELVES, AND PRECONCEIVED SOLUTIONS, WHICH RESULT IN FITTING THE SITUATION TO THE SOLUTION AND NOT THE SOLUTION TO THE SITUATION, ARE APT TO BE DANGEROUS OR COSTLY. NO ONE OF US CAN BE HIGHLY COMPETENT IN ALL FIELDS. IT BEHOOVES US TO RECOGNIZE THIS FACT; AND TO TAKE ADVANTAGE OF THE SUPERIOR KNOWLEDGE AND CAPABILITIES OF OTHERS IN THEIR RESPECTIVE FIELDS. DON'T INSIST UPON MAKING A LOT OF THE DECISIONS YOURSELF WHICH YOUR SUBORDINATES CAN MAKE BETTER THAN YOU CAN.

THE LARGER THE ORGANIZATION OVER WHICH YOU ARE PLACED, THE LESS PROPORTIONATELY BECOMES THE SHARE WHICH YOUR OWN OUTPUT AS

AN INDIVIDUAL CAN CONTRIBUTE TO IT, AND THE MORE IMPORTANT BECOMES YOUR POWER TO GUIDE AND DIRECT, TO ENCOURAGE AND TO USE THE IDEAS OF YOUR SUBORDINATES. THERE ARE SOME PERSONS WHO SEEM TO FEEL THAT TO RECOGNIZE AND USE THE IDEAS OF OTHERS IS AN ADMISSION OF THEIR OWN INFERIORITY. PERSONS OF THIS MENTALITY DO NOT FIT WELL VERY FAR UP IN AN ORGANIZATION.

IN USING THE IDEAS OF OTHERS, A GENEROUS RECOGNITION OF THEIR ORIGIN IS ALWAYS IN ORDER. THE NAVY HAS A SAYING THAT, TO HAVE LOYALTY UP, THERE MUST BE LOYALTY DOWN. A SELFISH, SELF-CENTERED INDIVIDUAL, WHO USES HIS SUBORDINATES FOR HIS OWN PERSONAL ADVANCEMENT AND FAILS TO APPRECIATE THEIR CONTRIBUTIONS AND TO LOOK OUT FOR THEIR INTERESTS, IS NOT APT TO HAVE A VERY HIGH DEGREE OF LOYALTY AMONG HIS SUBORDINATES. WE CAN EITHER DRIVE MEN THROUGH FEAR OF PUNISHMENT -- AS WE SEE BEING DONE IN LARGE PORTIONS OF THE WORLD TODAY -- OR ELSE WE CAN LEAD THEM BY OBTAINING THEIR FRIENDSHIP AND LOYALTY AND ENCOURAGING THEM TO EXERCISE THEIR INDIVIDUAL INITIATIVE. PUNISHMENT OF RECALCITRANT INDIVIDUALS IS REQUIRED OCCASIONALLY, BUT WITH INTELLIGENT AMERICANS THE OTHER WAY IS MUCH THE BEST.

FROM WHAT I HAVE OBSERVED DURING MY FORTY-FIVE YEARS IN THE NAVY, I AM A FIRM BELIEVER IN THE IMPORTANCE OF STUDYING TO KEEP ABREAST IN YOUR CHOSEN PROFESSION AND THEN OF DIVERSIFYING YOUR OTHER INTERESTS AS A HUMAN BEING, SO THAT YOU DO NOT BECOME TOO NARROW; OF RECOGNIZING YOUR DUTIES AS A CITIZEN; OF MAINTAINING AN OPEN MIND, AND STIMULATING AND DEVELOPING AS FAR AS YOU CAN YOUR IMAGINATION AND YOUR REASONING POWERS; AND OF STUDYING, UNDER-

STANDING AND DEALING FAIRLY AND GENEROUSLY WITH THE HUMAN BEINGS WITH WHOM YOU COME IN CONTACT. AS YOU GET OLDER, I BELIEVE YOU WILL COME TO PLACE MORE IMPORTANCE ON HUMAN RELATIONS, AND LESS ON THE PURELY TECHNICAL ASPECTS OF YOUR PROFESSION.

Address

delivered by Admiral R. A. Spruance, USN

at commencement

Worcester Polytechnic Institute.

June 11, 1948.

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To-day I am going to try to give the members of the graduating class the benefit of a few of the things I have learned from forty-five years in the Navy. My active naval service is about to terminate through retirement, just as you ~~men~~ are entering upon your own professional careers.

Before telling you some of the things that I have learned, perhaps it will be advisable for me to give you a brief description of a naval officer's basic education at the Naval Academy when I was a midshipman, and then to indicate the general lines which my service followed since graduation. With this background you will be able to judge better how applicable my ideas may be to the careers which you envisage for yourselves.

When I was a midshipman, the Naval Academy existed ^{as it exists to-day} to select and train naval officers. It gave us a technical education with a considerable background of engineering, but it did not endeavor to do ~~any~~ much along the line of the liberal arts. In our normal daily routine, starting with reveille at 6 a.m. and ending with Taps at 10 p.m., there was not much spare time for purely cultural matters.

After a little over three years of this ^{academic work,} interspersed with a three months' practice cruise during the summer - which was followed and high-lighted by one month of September leave - came graduation and orders to sea. Except for

the military drills and discipline and the ^{summer} practice cruises,
 I do not believe our education at the Naval Academy
 differed greatly in general quality
 - from that given by most technical institutions of the day.

In my first twenty years of service after graduation
 I did a great deal of engineering duty. Then, as I did
 not request engineering duty only, I found myself perform-
 ing other general line duties. Of these later years, I was
 fortunate enough to spend six at the Naval War College
 before World War II and two more subsequent to it.

With these eight years at the Naval War College
 studying war, and with nearly four years spent in the
 Pacific during the last war both studying and practicing
 it, I feel that I have acquired a fair knowledge of
 that ancient and honorable art.

The foregoing will give you the background of
 experience from which to-day - at the end of my active
 naval career - I shall try to present to you some of
 the things I have learned, which, I hope, may be of some help to
 you gentlemen who are just starting your way up
 in the world.

First, I want to say something about your mental
 outlook on life. You have just finished a stiff course
 of education, and probably many of you would like to

close your books, kick up your heels for a while, and then go to work with the comfortable feeling that, except for what you will learn in everyday life, your education has been completed.

I doubt if there is in the world to-day any field in which rapid progress is not being made. Those ^{persons} who fail to keep abreast of the best modern thought in their chosen field are not going to be in the forefront of their profession. They are apt to find themselves getting mentally fossilized and slipping further and further behind their contemporaries. Often, individuals of this type tend to blame everyone except themselves for their failure to keep up with the procession. I know, from personal experience, that what I say is particularly true of the engineering professions. For the past twenty years, while I have retained my interest in naval engineering matters, I have had little time for study along these lines and I find my knowledge becoming more and more out-of-date. The old basic principles may hold true, but the development and application of these principles to the engineering plant of a modern ship have often left me feeling woefully ignorant, when I have gone below to inspect. The entirely new fields opened up by scientific research, - of which ^{one prominent} electronics is ^{example} today

require constant study, if one is to keep abreast of them.

On the other hand, while it is essential for you to keep up-to-date in the line of your chosen profession, I think it is most desirable for you to retain and to stimulate your intellectual curiosity in other fields in which you may have a natural interest. One advantage accruing to those ^{who} are able to receive a liberal college education, in contradistinction to those of us who have had only a technical education, is that the former ^{may} have opened to them many cultural fields, such as literature, art, music, which, if they are so inclined, they can follow in later years. A knowledge and appreciation of these subjects enriches their lives and makes them more interesting individuals to their friends and acquaintances.

There is another side of modern life with which, I think, it is essential for every well educated citizen of the United States to be familiar. ~~and to take an active interest.~~ This is the broad field of government. It starts with our local governments, and passes through our state and federal governments into the field of international relations. The position of the United States in the world to-day has brought us many new and grave problems which require solution. An incorrect solution of our international

problems may often lead to the gravest consequences for our country. Reaching a correct solution involves a knowledge of the basic facts involved and an appreciation of the long-term interests of the United States. In a country such as ours, with a democratic government based on universal suffrage, this means ^{that} our foreign policies cannot be expected to be very far in advance of the thinking of the majority of the voting population. If our government ^{is} to act in the field of foreign affairs ^{in consonance} with the speed at which things are proceeding to-day, this requires a constant and continuing effort to keep our people informed of what is going on outside of the United States. They must be made to realize along what lines of foreign policy the real interests of the country lie. Those of our citizens who have been so fortunate as to be born with a superior mental equipment, and then to have had the opportunity to develop this mental equipment by a higher education, have a special duty to keep themselves well informed on world affairs and then to help educate and guide the rest of the country.

The importance of high quality, both of character and ability, in our elected and appointed officials is a matter which needs no stressing. No government can rise much above the level of the men in the key positions who

conduct it. If we have a strong and intelligently run Federal Government, supported by able and honest State and municipal administrations, we shall have the necessary foundation for the support of our responsibilities in the conduct of our international relations. You gentlemen ^{will} have a special responsibility, because of the educational opportunities that have been yours, to take seriously your civic duties in the community and ^{the} State in which you will reside.

TP. (and for the young naval officer reporting for duty on board his first ship, For the young graduate of a civilian engineering school entering his first employment) there is one probable difference. This lies in their respective responsibility for and authority over other men in their organizations.

The young naval officer is ^{first} assigned as a junior officer of a division. The division may be composed of as many as a hundred enlisted men, both petty officers and non-rated men, as well as several officers. As a junior officer ^{he} comes directly under his division officer, who assigns his duties, guides and directs him. After perhaps two years as a junior officer, he may expect himself to be made a division officer. Then he assumes full responsibility for - all of the officers and men of his division, for their

and welfare,

personal appearance, for their behavior, for their efficiency in operating the guns or machinery assigned to them, and for the upkeep and cleanliness of their part of the ship.

If he is to be successful, an officer soon learns that the selection, care and training of his personnel is one of his most important duties. He must study the individual capabilities of his men, place them in the positions for which they are best fitted, and encourage them to study and prepare themselves for advancement. Since good petty officers are the backbone of a good ship, the selection of the best men for promotion to the various petty officer grades is most important.

An officer must ^{also} learn how to function as a member of a large organization. ^{should} he work through his petty officers of ~~his own division~~, asking for their ideas and their advice and usually finding that they have much to offer. (In handling the work of his division) When dealing outside of his own jurisdiction, he must learn the organization of the ship and be careful not to offend the sensibilities of others in the chain of command by going over their heads, when he should go to or through them.

I doubt if most young technical graduates are, so early in their careers, placed in positions where

they have such intimate contacts with personnel problems and so much responsibility for the selection, training and welfare of the individual men who are working with and for them, as has the young naval officer.

From my own experience I believe that the ability to understand, and to evaluate and get the most out of their capabilities, (the individuals who are working for you) is of prime importance.

This ability to understand ^{other} human beings is something which we all have to a greater or less degree. Like nearly every other quality, it is something we can cultivate and improve with practice. Nevertheless, some persons have this faculty to a much higher degree than others. They are born with it, just as some persons are born with a natural talent for music, art or literature. They seem to have a natural instinct that enables them to perceive another man's character and capabilities. In building or manning an organization, this talent for getting the right men in the right places is most important.

Probably in large business organizations — certainly it is so in the Navy — the field in which most individuals can select their subordinates is very limited. In most cases we have to take over

and ^{to} use the human material made available to us by other agencies. As captain of a large ship, for instance, a naval officer has to understand and to make the most of the officers and men sent to the ship by the Navy Department. Only rarely does he have any voice in their original selection. Even more rarely would he feel justified in asking for the detachment of an officer ^{with} whom he was not satisfied.

Under these conditions, our ability to recognize each man's capabilities and his limitations becomes very important, if we are to get the most from our organization. If we place the square pegs in square holes and the round pegs in round holes, we shall be able to staff our organization to the best advantage. Then, by perceiving latent capabilities in talented individuals and encouraging their development, we shall begin to make progress. ¶ The reverse of this is an understanding of the limitations which nature has imposed on nearly everyone, ^{of us in greater or less degree.} Sometimes these limitations are caused by one's mental equipment, sometimes by physical handicaps, sometimes by weaknesses of character or temperament. If, by advice and encouragement, a man can be induced to overcome his limitations, so much the better; but sometimes

these limitations are inherent in a man's make-up, and can no more be changed than the color of his eyes.

Physical handicaps are usually obvious, but the handicaps inherent in a man's mental processes or imposed by his temperament or character are usually less so. These latter appear only after a period of personal observation, although sometimes they can be sensed, as if by instinct, on first contact.

As a result of ~~my~~ ^{my} experience ~~as a student~~ ^{at the Naval War College}, I have come to the conclusion that imagination and reasoning power are deficient in many individuals. When these qualities are lacking, no amount of study and training will cause them to appear and grow. There are many more individuals who have the energy and industry to grasp the ideas that some more creative mind has produced, than there are who can themselves produce something original. If imagination, tempered and guided by common sense and reason, is the scarce and valuable quality which I believe it to be, it behooves us to recognize the individuals who possess this disciplined imagination, to encourage and make full use of them.

The problems of war are different from the problems of peace, but I believe that the successful conduct of war contains many lessons which may be applicable to a civilian career.

In a fighting organization the will to fight is of primary importance. Everyone in the chain of command must know what he is trying to accomplish, and he must have the determination of character to carry through in spite of obstacles and opposition. The ability to distinguish essentials from non-essentials, to grasp quickly the elements of a changing situation, and the intestinal fortitude to keep cool and to continue fighting when the going gets tough, are required in the successful war commander. In civilian life the intelligence to understand clearly what is to be accomplished and the determination of character required to carry it out in spite of obstacles should be as important as they are in war. Intelligent determination, I might call this.

Modern war operations require a tremendous amount of detailed planning. This planning is like putting a complicated jig-saw puzzle together. Each detail must fit into its proper place in the operation plan, and there must be no holidays, if the picture in the mind of the high command is to come out complete.

In the process of preparing a plan, the first requirement is as full and accurate information of all the facts involved, as it is possible for us to obtain. In military operations there are always so many things which remain either unknown or inaccurately known that good intelligence of the enemy is always of vital importance. I believe in solving the problems of civilian life a similar bringing together of all the pertinent facts should be a first step. With the problem itself clearly determined - the mission in military parlance - and the facts bearing on the problem assembled and assimilated, we are in a position to proceed with the solution.

During the war I was always impressed with the necessity of keeping an open mind and of being receptive to the ideas of others. We study military history for the lessons it has to teach us, but we must not expect ^{necessarily} to obtain from history the correct answers to future problems. Situations rarely repeat themselves, and preconceived solutions, which result in fitting the situation to the solution and not the solution to the situation, are apt to be dangerous or costly. No one of us can be highly competent in all fields. It behooves us to recognize this fact; and to take advantage

yourself which your subordinates can make better than you can. 13

of the superior knowledge and capabilities of others in their respective fields. Don't insist ~~on~~^{upon} making a lot of the decisions.

The larger the organization over which you are placed, the less proportionately becomes the share which your own output as an individual can contribute to it, and the more important becomes your power to guide and direct, to encourage and to use the ideas of your subordinates. There are some persons who seem to feel that to recognize and use the ideas of others is an admission of their own inferiority. Persons of this mentality do not fit well very far up in an organization.

In using the ideas of others, a generous recognition of their origin is always in order. The Navy has a saying that, to have loyalty up, there must be loyalty down. A selfish, self-centered individual, who uses his subordinates for his own personal advancement and fails to appreciate their contributions and to look out for their interests, is not apt to have a very high degree of loyalty among his subordinates. We can either drive men through fear of punishment - as we see being done in large portions of the world to-day, or else we can lead them by obtaining their friendship and loyalty and encouraging them to exercise their individual initiative. Punishment of recalcitrant

individuals is required occasionally, but with intelligent Americans the other way is much the best.

From what I have observed during my forty-five years in the Navy, I am a firm believer in the importance of studying to keep abreast in your chosen profession, and then of diversifying your other interests as a human being, so that you do not become too narrow; of recognizing your duties as a citizen; of maintaining an open mind, and stimulating and developing as far as you can your imagination and your reasoning powers; and of studying, understanding and dealing fairly and generously with the human beings with whom you come in contact. As you get older, I believe you will come to place more and ~~more~~ importance on human relations, and less on the purely technical aspects of your profession.