For me the idea of a creation is not conceivable without invoking the necessity for God. One cannot be exposed to the law and order of the universe without concluding that there must be a Divine Intent behind it all.

I am also confident that, as we learn more and more about nature through science, we shall not only arrive at universally accepted findings, but also at a universally accepted set of ethical standards for human behavior. In the world around us we can behold the obvious manifestations of the divine plan of the Creator. We can see the will of the species to live and propagate. We behold the gift of love. And we are humbled by the powerful forces at work on a galactic scale, and the purposeful orderliness of nature that endows a tiny and ungainly seed with the ability to develop into a beautiful flower. The better we understand the intricacies of the universe and all it harbors, the more reason we have found to marvel at God's creation.

Never has there been a greater opportunity, or a greater incentive, for young people to learn to think for themselves. The body of knowledge is advancing at an absolutely incredible rate, and new tools are constantly being made available to the researcher that were previously not only unavailable, but often, not even dreamed of.

Without wanting to seem overly partisan, I would like simply to point out that the space program is America's greatest generator of new ideas, science, and technology. It is essentially an organization for opening new frontiers, physically and intellectually. Today we live in a different world because in 1958 Americans accepted the challenge of space and made the required national investment to meet it.

Young people today are learning a new science, but even more important, they are viewing the Earth and man's relationship to it quite differently -- and I think perhaps more humanely -- than we did twelve years ago. The space program is the first large scientific and technological activity in history that offers to bring the people of all nations together instead of setting them further apart.

By providing a perspective of the Earth never experienced before, the space program is changing our concepts not only of the Earth, but of ourselves. The Apollo lunar missions have shown that man has the ability to achieve objectives most persons considered impossible only a short time ago. They have made us conscious of the fact that the quality of life can be improved -- also far beyond what mankind previously thought was possible. People everywhere have therefore been raising their sights on goals to be attained -- in our own generation and in those to come.

Thus, aside from the impressive technology developed to take explorers to the Moon and return them safely to Earth, there is the new perspective which man acquires through exploration. Not only can this change his concept of what goals are desirable, but it removes many of the mental barriers regarding what goals are attainable. This is indeed the kind of result that may go unnoticed by many. However, I would submit that it has the kind of power that can change national destinies, and for the better.

There are other contributions of the national space program. We have made three major discoveries about space which I think will be of increasing value to mankind.

-- We have found there are limitless stores of scientific knowledge in space.

-- We have learned that space vehicles can be designed and operated to provide useful, even vital, services to mankind.

-- We demonstrated that man can fly in space, explore another world, performing useful work, and return safely to Earth.

In each of these space discoveries, there are deep implications for the future of the human race. In effect, all three represent an enormous increase in man's powers to understand, use and manage more efficiently and beneficially our planet's limited resources. In the longer-term view, if and when that should become desirable or necessary, we have developed the basic technology through which man can extend his ecological range beyond Earth.

With regard to space as a source of knowledge, which I have touched upon, I would like to add a little more to the kinds of knowledge and understanding that we have found and are seeking. There is, of course, a great deal of data being collected about the stars, galaxies and intergalactic space which -- although it may have no immediate practical use -- is of uncalculated value in forming a more accurate concept of the nature of the universe and man's place in it.

But there are practical values to exploring space. Take, for example, the new knowledge we are gaining of Sun-Earth relationships and cosmic radiations which profoundly affect our environment and ecology. A comprehensive program to clean up the environment and preserve the ecological balance threatened by man's activities requires detailed scientific knowledge of the interactions between ecology and environment. We must know the nature of the environmental dynamics, what influences are brought to bear that result in natural change as well as man-made effects. It is a global problem, calling for constant monitoring to detect new sources of pollution that may arise, which requires the use of space vehicles coordinated with other systems.

To identify the forces that shape the terrestrial condition, and to increase our knowledge of the basic principles which form the mechanisms of such forces, is a task for a space science program. We must venture into the unknown. NASA already is engaged in acquiring this knowledge and developing the space technology which will play a large role in solving the environmental problem. I would venture to say that without space science and technology, there can be no truly effective solution to this problem, and to many of the other so-called down-to-Earth problems that are vexing humanity today.

Much of our new knowledge in space has been acquired as the direct result of teamwork involving not just NASA and industry, but also the educational community. Many of the experiments we have flown, for example, have been conceived and designed in the laboratories of our colleges and universities.

Colleges such as Belmont Abbey can and must continue to play an important role in our nation's continuing progress and well-being. This country has long been noted for leadership in science and the high technology that almost inevitably goes with it. If we are to continue this leadership, we must maintain a high level of basic research and intellectual activity of the kind that is found to the highest degree in our institutions of higher learning.

There is no lessening in the responsibility of our colleges to pass on existing knowledge, refining its accuracy and preparing young people to put it to use. But more and more, I think, our colleges and universities must extend their responsibilities by moving into the mainstream of the workaday world.

As great social problems continue to press more heavily upon us, we need more effective ways of applying new knowledge, through a diversity of skills drawn from many disciplines. We cannot solve the problems of the inner city, for example, without new approaches and new methods of organization. The same goes for our attacks on the problems of air pollution, water pollution, highway congestion, and the increasingly dangerous imbalance in the world population-food ratio. Piecemeals attempts to solve such problems have failed time and again to do the job; they are hopelessly inadequate.

But we have new tools, new capabilities, new management methods, at our disposal. Now the real question is, how are we going to use them?

Science itself is, after all, basically an endeavor of the human intellect. New ideas are not going to emerge from the wondrous black boxes we call computers; those are indeed valuable tools, but they are subject to what computer engineers abbreviate as "G-I-G-O" -- garbage in, garbage out. We need human minds with originality and imagination to make sure that our tools and technology are properly used.

Some young people are increasingly expressing the fear that the individual is doomed to be lost in the crowd, if not actually at the mercy of the machine. But it is the very humanism of the individual mind that cannot be replaced by any mechanistic device, however complex or sophisticated.

Our colleges and universities, then, must ensure that we continue striving for original thinking and -- if you will -- increased scientific literacy. In the process of give and take, there is an opportunity to develop a broadened socio-economic-cultural society that is able to understand and appreciate both Shakespeare and Newton. At the same time, the new technological tools at our disposal can aid in adding to the store of knowledge that must be handed on to coming generations.

Your own generation (and as an aside, may I say that it is largely as a result of space technology, specifically, communications) -- your own generation knows more about the world and what is going on in it than has any other generation in all history. I hope that this does not make you vain; I also hope that it does not make you cynical, although there is always that danger.

Certainly you are not going to be easily taken in by any "onward and upward" or "sweetness and light" messages of the type that are traditionally delivered at commencement ceremonies. On the other hand, I hope you will guard against overreaction. I do encounter many young people these days -- and quite a few older ones -- who think that our new technology is simply moving George Orwell's 1984 up by a few years, to maybe 1974. Cassandras everywhere warn us daily that civilization is already doomed to quick and pitiful destruction, strangled by its foul air and polluted water, starved by its lack of nourishing food.

Don't bet on it.

At the risk of sounding like every other "onward and upward" commencement speaker, let me say that I think technology, far from causing all our problems, offers our best hope of solving many of them. I don't mean just space technology, either, although I do think that the space program - and particularly Project Apollo - has a message for people everywhere. And that message is, we can undertake and accomplish any bold project however difficult, if we have the will and the courage.

Alumni Chapter News

Miami

Bob Favarato, a leader in the Abbey's Miami Alumni Chapter reports that the chapter is well on its way to becoming a successful and vibrant chapter.

Washington

Recently, June 5, the Chapter met at Mike Langes' Hawk and Dove on Capital Hill. At this time a brief meeting was held

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