## REMARKS BY DR. EDWARD C. WELSH, EXECUTIVE SECRETARY NATIONAL AERONAUTICS AND SPACE COUNCIL

## At the Dedication of the PROJECT MERCURY MONUMENT

Cape Kennedy November 10, 1964

It is an honor to participate in this historic action -- the dedication of a memorial to the Mercury project. I am deeply grateful to the fine people of NASA, the Air Force, and the General Dynamics Corporation for this opportunity.

In a few short years, Project Mercury moved from its complex birth through an active orbital life to the position of elder statesman of our manned space program. Its trail-blazing record is no less than phenomenal.

A marriage made on earth but destined for the heavens was the joining of the Mercury spacecraft first with the Redstone and then with the Atlas. One should not praise the Mercury capsules without also praising the launch vehicles that propelled the capsules on their preordained flights. The spacecraft and the launch vehicles cooperated in an atmosphere of constructive compatibility.

The Mercury project was this Nation's first act to place man into space. Its success is a bright spot in the history of our effort to catch up to our Soviet competitors. But Mercury is more than that. It is the beginning -- the keystone-- for a manned space program which will continue to grow as long as there is a civilization to support it.

The Mercury project had an active life span of 4-2/3 years. I think it should be noted here that its accomplishments have, in effect, given it a life of endless duration. The memorial which we are dedicating today attests to its immortality.

Mercury stands as a symbol of effective government-industry teamwork. It reveals how vital elements of a free society can join together to meet major challenges -- and to meet them successfully.

During the lifetime of this project, major attention was focused on the astronauts, and rightly so. The concern of tens of millions was for the man in his capsule

shot aloft during a thunderous liftoff, -- hurtled through space and then returned for a spine-tingling and suspenseful recovery at sea. These were exciting events and the fact that young Americans were able to perform such feats so capably was a proper source of excitement and pride. However, the job of an astronaut is like the apex of a pyramid. He is supported by a huge aggregation of other hard-working, competent people in government and industry, each doing necessary tasks to support him in flight. To attain a total of 25 flights altogether and 54 hours of successful manned flight time required literally thousands of man years of supporting labor here on earth. It has been estimated that in excess of 2 million people were directly and indirectly a part of this project.

One should not for a moment overlook the pioneering work or the frustrations of the private contractors and of the government agencies involved. This was a case of doing and learning at the same time, often with inadequate resources and sometimes with less than sufficient public understanding of the complexities of the assignment.

There was, as I said, more to the team than just the astronaut. For example, the world-wide tracking and data acquisition network consisted of as many as 17 land stations plus several ships at sea operating together. This tracking operation was a complex one which required highly trained individuals and many days of rehearsal before each flight. During the flights, data poured into the central computing facility at as high a rate as 1000 bits per second. The people who ran this network performed a task of great complexity and absolute necessity.

While Mercury is referred to as a NASA project, and rightly so, it should be noted that agencies of the Department of Defense supported it in the essential role of spacecraft and astronaut recovery. In a single manned Mercury operation, 28 ships, 171 aircraft, and over 18,000 military personnel were deployed in primary and contingent recovery areas throughout the world. In fact, those who like to find divisiveness in our space program find little comfort in the Mercury project. It was a project in which we had NASA-sponsored spacecraft placed into orbit by Air Force-sponsored boosters, launched from an interagency coordinated launch site, and piloted by individuals on detail from the Armed Services. This cooperation was in addition to the recovery support just mentioned.

The Mercury project has shown what a free country can do in the open for all the world to see. The whole world was able to follow the details as history was being made and was able to share in the dramatic suspense and the wonderful sense of accomplishment of a difficult task performed to perfection.

Previously, projects approaching Mercury's size and complexity have been carried out only under the stress of war for the Nation's defense. Mercury

proved that our free society can initiate and carry through to fruition a major national endeavor in peacetime for peaceful purposes. I emphasize, however, that the concept of peaceful purposes includes those activities which will assist us to maintain the peace as well as those which improve our way of living under conditions of peace.

This Mercury project was truly a national one and one of which this Nation is justifiably proud. The instinctive wisdom of the general public showed through in its enthusiastic support of the Mercury effort. In turn, Mercury served to lift the self-respect of our Nation when it badly needed such a boost.

I know that we still have widespread public support of our national space program, in spite of the criticism of some short-sighted individuals.

Mercury set a pattern for the expeditious, yet careful, manned exploration of space. We are following this pattern in our future projects and I believe improving on it as we go along. To my way of thinking, Mercury, Gemini, Apollo, and MOL are the essential but still just the initial short steps in the great venture of manned space flight. We are moving ahead in these projects, and I would hope that the resources devoted to the effort would be at least commensurate with the growth in our gross national product. Any slower pace would not be in our national interest. As we all know, the USSR is carrying out a vigorous manned space program. The recent three-man Voskhod flight is additional evidence of such program and further emphasizes that we are behind in this important aspect of the space race. As such, it should act as a stimulus to greater effort without prompting a major revision of our existing program.

Today is also an occasion for looking to the future, even while acknowledging the significance of the past. Hence, I avail myself of this distinguished audience and this historic occasion to emphasize and to reemphasize the national advantages of manned space flight.

Let us work together both as space enthusiasts and as practical individuals to clarify the thinking of those who would slow down the program; to clarify the thinking of those who would substitute instruments for men rather than combine instruments with men; to clarify the thinking of those who would employ mechanical computers to rule out the greatest of all computers, i.e. man himself; and to clarify the thinking of those who would make our space future primarily a series of short-run fiscal decisions rather than long-term investments in our country's greatness.

As the future continues to become the present, men will traverse the heavens in increasing numbers and with increasing effectiveness. I want the United States to become the leader in this inevitable advance. If we are to do so, however, we must strive energetically to overcome the Soviets' lead.

President Johnson is one of the chief architects and is the highest-level supporter of the national space program. To him space is a challenge which this country must meet and must master. He is proud of our space accomplishments, including emphatically the Mercury project, and he wants no less than first place for the United States in this great race.

And now on behalf of the President I am privileged to thank those who are responsible for this magnificent memorial. I respectfully add to that my own congratulations for this symbol of accomplishment and this symbol of space progress. The General Dynamics Corporation is to be complimented for its public service in erecting and donating this Mercury monument. It will stand as a reminder to us all that there is much more to be done and to be done well.