

## MOONBEAMS REFLECTIONS ON THE FLIGHT OF THE EAGLE

In our sophisticated society, few people are truly thrilled anymore by accomplishments of mere man, even though those accomplishments often are truly spectacular. Yet on July 20, 1969, millions of television viewers throughout the world experienced a spine-tingling thrill that belied their cultured sophistication as they watched Neil Armstrong emerge from the Eagle and begin his history-making steps to the surface of the Moon. The impossible had been made possible; the creative thinking of science fiction writers had become fact.

Credit for this gigantic achievement belongs to many people from many fields of endeavor. It belongs to ancient and modern astronomers, mathematicians, physicists, geodesists, engineers, surveyors, doctors of medicine, lawyers, politicians, the astronauts and cosmonauts, in fact, essentially the whole pattern of activities that man has developed through the centuries to advance his culture.

And what is the effect? Some say that the greatest impact of the perfect space mission of Armstrong, Aldrin, and Collins is that it caught the "public imagination" and, for a time at least, extended Man's view and thinking beyond the narrow confines of self and the material matters of the moment. The mission again reminded thoughtful people that each generation of man is temporary, but that the accomplishments of a generation, in terms of extending the knowledge of man's total environment, can endure for many generations. Some say that a significant effect of the space mission is that theory has become fact. Much has been deduced about the Moon from long range scientific observations. These deductions were dramatically proven when Armstrong and Aldrin moved about on the Moon with comparative ease and in reasonable comfort. The landing, the take-off, the successful rendezvous and return to Earth were based on scientific deductions which were validated by the successful performance of the acts themselves. Others point out that among the most significant accomplishments are the development of the means of space travel, the vehicle, the propulsion system, and the charting of courses in Space.

These things and many more might be said, and are being said, about the flight of the Eagle. As Surveyors, we are happy that our interest in the exploration of space was indicated quite definitely in the early stages of the project when a certain series of lunar spacecraft were designated Surveyor I through 7. However, surveying and mapping has contributed much more than simply a name to the exploration of space. Contributions include the establishment of precise geodetic control at and about the launching site, the cartographic preparation of many kinds of maps of the Moon, the application of geodetic and topographic survey data to the guidance and tracking systems, and the complex of local land, control, and cartographic surveys required to support the tremendous expansion of facilities related to the space effort.

The successful flight of Apollo 11 is a beginning of an era. History shows that Man's search for knowledge has never stopped with the successful accomplishment of a single mission. Space will be explored in greater depth and detail as time goes on; and surveying and mapping will continue to be a part of that exploration.

