

David Proctor, standing, directs the IBM programming team at NASA's Houston mission control center.



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A Slingshot Into History

OU alum and future IBM executive David Proctor created the code behind Apollo 11 and 13.

BY ANNE BARAJAS HARP

JUST TWO FLOORS below NASA's Houston mission control center, OU '62 BS math alumnus David Proctor headed an IBM team working closely with NASA personnel to calculate a safe return for the Apollo 13 astronauts.

Proctor, a native of Seminole, Okla., coded the lunar descent maneuvers for both Apollo 13 and Apollo 11, which had landed humans on the moon the year before. He and his team earned the Presidential Medal of Freedom for their role in navigating Apollo 13's homecoming.

Both missions' computing and data

processing systems were created and managed by IBM. Proctor's team ran hours of Apollo 13 analysis, verifying models determining the trajectory of the capsule's "slingshot" maneuver around the moon. That maneuver allowed astronauts to return to Earth a full day ahead of schedule as precious oxygen supplies ran low.

Proctor—who received an OU honorary degree in May—went on to create an outstanding career in the aerospace and computer industries and served in multiple executive positions at IBM. However, "The Apollo

11 and Apollo 13 missions were the highlight of my professional career," he says.

He and his wife, Judi, have established several scholarship endowments at the OU Foundation, including those honoring their late sons, David Michael Proctor and Matthew David Proctor.

In recognition of a \$7 million gift to the OU Foundation, the David and Judi Proctor Department of Mathematics was named in 2022. The couple also has announced a planned gift that will create two new endowments in the Dodge Family College of Arts and Sciences and the Weitzenhoffer Family College of Fine Arts. Their gift will provide fees, books, housing and other needs for OU students who receive an Oklahoma's Promise scholarship through the Oklahoma State Regents for Higher Education. [S](#)