

Aggies design space shuttles

By CARL BECKER
Reporter

Larger, more economical space shuttles than those now in use have been designed by Texas A&M students for a national design competition.

The shuttles, bearing names such as Pegasus and Space Eagle, were designed by groups of aerospace engineering students enrolled in an aircraft/spacecraft design course. Assistant dean of engineering Stan Lowy, who teaches the course, said the students were given several options, one of which was to work on a contest proposal for the 1984 American Institute of Aeronautics and Astronautics/Bendix Design Competition.

The shuttle proposal involved designing a space transportation system capable of carrying larger loads and of inserting them into higher orbits in response to the anticipated demands of the 21st century. In addition, the proposal required that the shuttles be fully reusable, have a five-day landing-to-launch turnaround time and be able to carry a 100,000-pound payload. Lowy said that of 10 groups, five chose the shuttle proposal.

He said each of the resulting five designs will be entered in the September competition and is optimistic about their chances of winning.

"They are all good designs, and one in particular has an excellent chance of winning," he said.

Designing the shuttles according to the specifications of the competi-

tion required the students to apply everything they learned in the aerospace curriculum, Lowy said.

"It got them to see the interconnection of the courses they had been taking," he said. "For example, they saw how aerodynamics and propulsion interact with the structure. The class gave them the knowledge of what it takes to design anything — where you start, how you proceed and how you begin to finish it up."

John Bessolo, team leader of McMullen's group, said the class did more than just teach the students to apply their accumulated knowledge.

"It taught us to organize our time and to plan ahead," Bessolo said. "The class also refined our research skills by making us learn where to go to find the information we needed. I learned a lot."

David Forsyth, a member of the group that designed the Pegasus, said he also learned more than just how to apply what he learned in his classes.

"It taught me a lot about working together with a group of people," Forsyth said. "It also taught me that once you start a job, you finish it."

Lowy said the class is unique in other ways, too.

"Contrary to most classes here that give students problems with only one right answer, this one offers problems with several different answers," Lowy said. "The student is introduced to a real-life situation where there may be eight or nine different answers and must decide which one to choose."



Another bright idea

Photo by ERIC EVAN LEE

Anthony Baker, left, and Curtis Holder, both Texas A&M University employees, change a light on Ireland St. The newly designed high pressure sodium lights are replacing

the old mercury vapor lights on the street. The new lights are supposed to require less energy while giving brighter illumination.

NASA picks designers for first 'space tug'

United Press International

WASHINGTON — The National Aeronautics and Space Administration awarded preliminary design contracts totaling \$5 million for an "orbiting maneuvering vehicle" — an unmanned space tug that would start flying in 1990 to ferry satellites to and from space shuttles in orbit above earth.

Contracts were awarded to LTV Aerospace in Dallas, Martin Marietta Aerospace in Denver and TRW Inc., Redondo Beach, Calif.

NASA expects to select one of the companies in 12 months to build the reusable, remotely controlled space-

craft. The project will be managed by NASA's Marshall Space Flight Center at Huntsville, Ala.

The tug will be designed to retrieve satellites up to 1,000 miles above Earth, ferry them to a space shuttle in an orbit about 200 miles high for maintenance, and repair and then return the satellites to their normal, higher orbits.

Terry Eddleman, a Marshall spokesman, said the tug will be carried to and from orbit in a shuttle, but may eventually be based at the space station NASA hopes to have in operation in 1992.

Bush attacks Democratic campaign

United Press International

WACO — Vice President George Bush, campaigning in the heart of conservative Baptist country Tuesday, blasted the Democratic Party's "ultra-liberal" policies and praised President Reagan as the "peace president of the Nuclear Age."

Bush told about 2,000 supporters that Democratic presidential nomi-

nee Walter Mondale advocated "weakness in the face of totalitarian aggression," while President Reagan was responsible for building a stronger national defense.

"Because we have been strong and have strengthened our defenses," Bush said, "Ronald Reagan is in a good position to be the peace president in the Nuclear Age."

During the rally at the Waco Con-

vention Center, attended largely by students of Baptist-supported Baylor University, Bush hammered away at the Mondale-Geraldine Ferraro ticket.

Earlier Tuesday in Tyler, Bush said the Democrats "crowded out" moderates and insulted Sen. Lloyd Bensten of Texas by nominating Ferraro for vice president.

He also accused the opposition

party of "low-road campaigning" and demanded an apology for a speech in which New York Gov. Mario Cuomo assailed Reagan's Central America policy and the murder of American nuns in El Salvador.

Bush said such legendary Democrats as Harry Truman and Lyndon Johnson would applaud Reagan's foreign policies — not criticize them.

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