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Three versions of a rugged, low ing nations have been designed ost aircraft for use in develop- by Texas A&M student teams. a proposal request for an aero-

Conceived within limitations of

fore designing the airplanes. They

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space engineering course, the also worked out financial esti- the contract" to Painter's team. planes would fly cargo or passengers in nations undergoing rapid industrial development.

"Development of such specialized aircraft would give the U.S. aerospace industry substantial long range markets and provide technological advances to nations seeking better transportation sysflight. tems," said Dr. Charles A. Rodenberger aero engineering professor, in the proposal request.

Three nine-student teams headed by Dale Painter of Houston, John Richardson of San Antonio and Richard Rynearson of Decatur made feasibility and economic analyses in model countries be-

mates for the systems, including development of relatively low cost landing strips.

Market analysis included identifying possible passengers and products for transportation, development of routes and numbers of flights per day and payload per

Aircraft performance required a 1,600-mile full load range, a computed to be a 115-foot wide 600 mile-per-hour cruise speed, land and takeoff on a 6,000-foot long sea-level runway and 295 feet per minute rate of climb.

A four-man panel composed of engineers from Boeing, LTV and General Dynamics judged team oral presentations and "awarded

The team's solution was the "Burro," a twin turboprop-powered nose-loading craft of 73-foot length and 97-foot wingspan. Cost per plane for 1,000 transport and passenger versions would be \$1.1 million, with \$315.52 per hour operating expense at U. S. labor costs. Sea-level runway needs were

concrete strip 66 inches thick at the touchdown area sloping up to 33 inches at runout. The cost of 15 airfields and 500 planes was figured at less than \$623 million. "Most important," the team

said, "is that using air transport to develop remote areas of a

country, such as Braz cheaper than

transportation syst Painter's team calcul

a two-lane paved road system connecting the points on their proposed Brazilian system would cost \$16 billion, not including yearly maintenance nor gasoline and repairs stations along the highways.

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The winning team was composed of Painter, Joe Bierman of Allentown, Pa.; Paul Busch, Beaumont; George Cataldo, New Fairfield, Conn.; Tom Gailey, Ord, Neb.; Jordan Gary, Dallas; Mike Harrison, Burleson; David Hayek, Corpus Christi, and Gary Sharon, Palestine.

