

Students design aircraft for future transportation

Aircraft for linking cities with super airports have been designed by A&M students for an evolving trend in air transportation.

Located between major population and industrial centers, the super airport is seen as a necessity, due to needs of sophisticated aircraft and large numbers of passengers requiring terminal facilities of enormous size, commented Stan H. Lowy, associate professor of Aerospace Engineering.

Jumbo jets and supersonic transports could then be utilized to their full extent.

"Such an airport would be central to and service, say, Houston, Dallas-Fort Worth and San Antonio," he explained. Noise from the big jets' landing and takeoff would be restricted to relatively sparsely populated areas.

Air taxis such as two designed by aerospace engineering stu-

dents in a senior design course instructed by Lowy would solve ground commuter travel time.

"Several small airfields at convenient points in a city would reduce ground commuter time as well as space requirements and noise pollution problems," a student engineering team pointed out in its aircraft design proposal.

The in-city airfields also would lend themselves more to small-plane recreational flying and small business aircraft than the present larger facilities that in many instances are peripheral to metropolitan centers.

To obtain optimum passenger capacities and other desired features for their air taxis, student design teams headed by John P. Boyd of Garland and Phillip R. Bagwell of Beaumont conferred with Guy A. Davis, president of Davis Air Lines.

Davis operates a commuter airline from Easterwood Airport to Dallas and, previously, to Houston.

Lowy required that the preliminary air taxi design have a minimum 300-mile range, 225 mph cruise speed, 15,000-foot service ceiling and have a landing and take-off distance of 1,200 feet or less over a 50-foot obstacle.

"The students did a very excellent job with quite a bit of detail," he stated. Both teams designed 18-passenger planes with retractable landing gear.

"Both planes meet the minimum runway requirements and would do it at Denver on a 90-degree day," the instructor said. Both teams built wind tunnel models that were tested in the Aerospace Engineering Department's two-by-three foot wind tunnel.

The Boyd team chose a standard configuration aircraft powered by two turboprop engines. The 12,700-pound gross weight plane was cost estimated at \$423,000 with a three cents per seat mile cost.

Boyd's team included Walter J. Delury of Philadelphia, Pa.; Melvin E. Durely, Pittsburg; Roy S. Marlow, San Antonio; Michael

R. Murphy, Denver, Colo.; James J. Rotter, LaGrange, and Morris M. Stroman, Texarkana.

A twin boom fuselage arrangement was worked out by the Bagwell team, mounting three turboprop engines developing 1,100 horsepower each. Two engines were mounted in the booms at the wing and the third was placed in the rear of the passenger compartment as a pusher.

The 16,000-pound gross weight air taxi had an estimated \$300,000 cost and 5.94 cents per seat mile operation cost.

Working with Bagwell were Thomas B. Laird Jr., and James W. Howder of San Antonio; Charles R. Nelms, Teaneck, N. J.; Carl F. Hatch, Robert Lee, and Ralph A. Dougherty, Griffin, Ga.

The teams' reports included all computations on structural design analysis of the various aircraft components, stability, control and performance analysis and systems and layout design.

Lowy said the team approach to instruction in the design course puts the student in an industry-like working situation. Team competition parallels the system of several aircraft builders bidding for the most economical aircraft, he added.

Ags give money to WSU fund in place of banquet

Texas A&M's football squad Tuesday voted overwhelmingly to forego a banquet in favor of sending \$5,000 to the Wichita State football fund.

At the same time, the Aggies named their four seniors as captains for the past season and voted on the "Aggie Heart Award," the result of which will be announced later.

Coach Gene Stallings praised his players for their decision to aid Wichita State in lieu of a banquet for themselves. "It just proves the high type of individuals who represent Texas A&M in football."

The criteria for the \$5,000 figure was based on the cost of last year's banquet.

The Aggies open their 1971 football season at home against Wichita State, a team they played here in the season's opener last Sept. 12, in the first of a four-game series.

A&M's four seniors elected as captains were All-America safety Dave Elmendorf, from Houston Westbury; defensive guard Winston Beam, from Odessa; offensive guard Jim Parker, from Gonzales and punter Jimmy Sheffield, from Houston Waltrip.

All four voiced the hope that A&M's sending money to Wichita State in lieu of a banquet would start a trend among college football squads across the nation.

Stallings said that his squad would have a get together later to present the "Aggie Heart Award", always a highlight of Texas A&M football banquets. The five-foot high trophy goes to a senior, on a squad vote, who has given his utmost in effort, desire and determination, both on the practice field and in the playing arena.

Naming of coach expected soon

FORT WORTH (AP)—A selection committee drew near Tuesday to naming a new football coach at Texas Christian University with Jim Pittman of Tulane believed one of the major prospects.

Pittman, former top assistant to Darrell Royal at Texas, visited the TCU campus Monday. He flew home to New Orleans after a half-day session.

"We didn't make a firm offer, just as we have told the other people we have interviewed."

Sources said others under consideration for coach of the Horned Frogs included Bennie Ellender of Arkansas State and assistant coaches Chet Franklin of Colorado, Leroy Montgomery of Kansas State and Emory Bellard of Texas.

Waldrop was one of a three-man committee appointed to select a replacement for Fred Taylor, fired in November after four years as TCU head coach.

The vice chancellor said TCU representatives had talked three times by telephone with Pittman, but he could not be interviewed until after last Saturday's Liberty Bowl, in which Tulane defeated Colorado 17-3.

Tulane, appearing in its first bowl game in 30 years, finished the season with a record of eight victories and four losses.

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Russell, Mikan named to team

NEW YORK (AP)—Bill Russell, who led the Boston Celtics to 11 championships, and George Mikan, former Minneapolis Lakers star, were named Tuesday as centers on the National Basketball Association's silver anniversary team.

Russell, who retired in 1969 as the league's all-time rebounding leader with 21,721, was the only unanimous choice for the squad of 10 retired players chosen by a panel of experts.

Mikan, a 6-foot-10, 250-pounder who paced the Lakers to titles in 1949-50-52-53-54, is regarded as the first great pivot man of the game.

Previously named to the squad were forwards Dolph Schayes, Paul Arizin, Joe Fulks and Bob Pettit. The guards will be announced Friday.

Ag soccer team third at tourney

The Texas Aggie soccer team placed third in the season ending Texas Collegiate Soccer League Invitational Tournament at San Antonio.

Texas Tech upset highly favored UT-Austin, a team that was unbeaten and only once tied in the past three seasons, 2-0, to win the championship.

The Aggies bounced Texas A&I, 3-2, after being beaten in the first round by the Longhorns, 4-1. Only four of the 11 regular starters made the trip for the Aggies.

Tech had defeated another highly favored team, St. Mary's, 2-0, in the semifinals and the Longhorns reached the finals with a 2-1 victory over A&I.

A&M defeated Texas-El Paso, 3-1, to win the right to play A&I.

The Aggies finished the regular season with a 10-4-1 record, good for fourth in the circuit behind Texas, St. Mary's and the host team for the tournament, Trinity.

Approximately 35 students participated in the A&M soccer team this season under a program organized by the A&M Soccer club. The club receives no support from the Athletic Department but did receive \$500 from the Exchange Store fund which was used to pay for expenses during the team's seven road games this season.

A private contribution to the club has also made it possible to purchase portable goals, new team jerseys and nets.

For the past three seasons, the team has used cast-iron goals belonging to the Physical Education Department and the nets in the goals were made of four rotten tennis nets, which were strung together and patched with string.

The Texas Collegiate Soccer League has expanded in the last two years to the point where next season it will be divided into Northern and Southern divisions.

Final plans for the divisions will be set up at a meeting in the spring but tentative plans have the Aggies playing in the Southern division with Texas, Rice, Houston, St. Mary's, Trinity and A&I.

Northern Division members will be North Texas State, SMU, TCU, SFA, Texas Tech, UT-Arlington and Midwestern.

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