Page 2 Wednesday, May 26, 1971 College Station, Texas

#### **Rep. Bill Presnal Reports**

## 'Significant' bills have seen action in House

The House of Representatives has been working on many bills of extreme interest and importance as it starts the countdown to end the session. This column new document would have to conwill be devoted to brief summaries tain the existing Bill of Rights. of some of the significant bills that the House has recently acted upon.

A proposed constitutional amendment, H.J.R. 61, passed the House last week recommending that the 63rd Legislature sit as a constitutional convention in 1974. The proposed amendment, if the Senate accepts it, will be submit- dents attending private but acted to Texas voters in the November 1972 general election.

If voters approve, the 63rd Legislature in 1973 would appoint a ed under the rules set by the constitutional commission to work with the legislative council in leges and Universities. studying the state constitution and proposing changes. The commission would report its findings and recommendations to the 63rd Legislature no later than November 1, 1973. The Legislature would had some problems in the House then meet in special session in of Representatives. January, 1974, to act on these recommendations.

All 181 members of the Legislature would sit as a plenary body to either revise the present 96year-old constitution or write an entirely new constitution.

Either way, it would take a came forth last week after re- against neighbor. Legislators who two-thirds vote of the Legislative Convention to submit a constitutional issue to the voters. The

\* \* \* The House has under consideration a bill which has passed in the Senate allowing the state to underwrite tuition in private schools for persons to attend private colleges and universities.

The tuition grant bill would permit up to \$300 per semester in state assistance for Texas resicredited colleges. The tuition grants would be made on the basis of economic need, as designat-State Coordinating Board of Col-This bill giving state tutition-

equalization grants to Texas students who prefer private rather than state colleges but cannot afford the higher tuition rates has \* \* \*

The Senate and the House of

Representatives repealed the 2cents-per-gallon gas tax that was included in the general tax package to sent to the Governor's office two weeks ago. Gov. Smith against friend and neighbor

it was cut.

legislative gas tax reepal, this sions. will not be necessary.

The 2-cents-per-gallon tax originated in the Senate and was later approved by the House. The gas tax repeal eliminates about \$72 million that would have gone into the general revenue fun.

In addition, the gas tax, if it had become law, would have given financial relief to our city and county governments by the state assuming 100 per cent of the cost of obtaining highway right-ofway.

\* \* \*

Redistricting of U.S. Congressional seats, State House seats and State Senate seats is approaching the final stages. As expected, there will be much lastminute shuffling of district lines that have been previously drawn and re-drawn. Decisions on redistricting are probably the most dificult to deal with of any the Legislature encounters.

Situations arise that pit friend

maining silent during the bitter have worked together on numertax fight for weeks and said flatly ous issues and problems in the he would veto the tax bill unless past will find themselves running against each other in the 1971 A tax bill veto could have elections. Many of these situations thrown the Legislature into a are inevitable following the costly special session. After the court's one man-one vote deci-

> Only one of the four constitutional amendments submitted to the voters last week received statewide approval. This was amendment number 4. This amendment provides for \$100 million of bonding authority under a six per cent ceiling in order to meet new matching-grant formulas for sewer installations and treatment facilities.

With the passage of this amendment, substantial improvements can be made in sewer treatment facilities which will provide cleaner streams in Texas. \* \* \*

A bill recently passed by the House, H.B. 261, would create the presumption of intoxication at .10 per cent and the information would be admissable at trials of driving - while - intoxicated cases. The jury would also receive a report of the level of alcohol in the

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of the arrest.

Opponents of the bill argued that it takes from a citizen the right of being considered innocent until proven guilty.

THE BATTALION

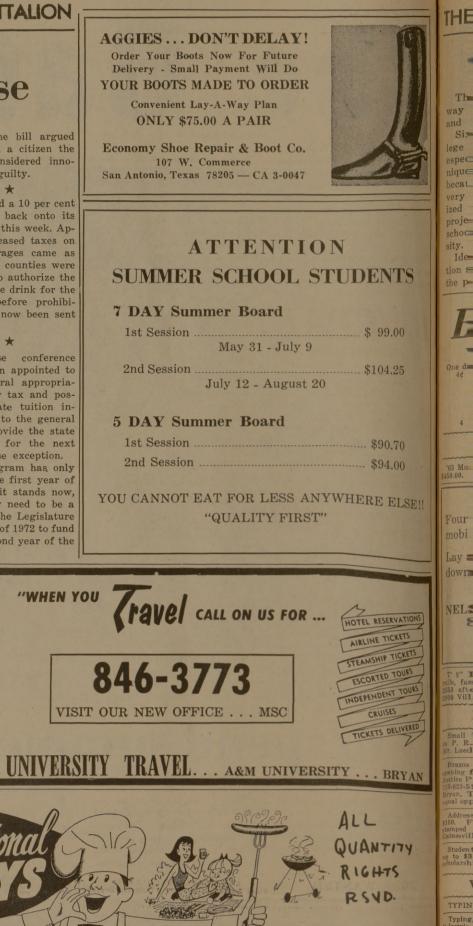
\* \* \* The House tacked a 10 per cent

gross receipts tax back onto its liquor tax package this week. Approval of the increased taxes on all alcoholic beverages came as voters in 46 Texas counties were deciding whether to authorize the sale of liquor by the drink for the first time since before prohibition. This bill has now been sent to the Senate.

\* \* \*

A Senate-House conference committee has been appointed to work on the general appropriations bill. A liquor tax and possibly an out-of-state tuition increase, in addition to the general tax bill, should provide the state sufficient funding for the next two years, with one exception.

The welfare program has only been funded for the first year of the biennium. As it stands now, there will probably need to be a special session of the Legislature during the summer of 1972 to fund welfare for the second year of the



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# Students propose satellites to help control air traffic

Texas A&M students engineer- ry Lewis and Russell Mask, San ed preliminary designs of satellite Antonio; Steve Henry, College air traffic control systems during the spring semester.

Aerospace engineering teams composed of 13 senior design course students formulated the to "probe" planes in the air one systems, wrote proposals such as would be submitted by an industrial firm and made oral presentations heard by Texas A&M faculty members.

Proposals met design criteria established by associate professor Stan Lowy, instructor of the spacecraft design course.

Both systems employ the satellite as a repeater or relay for signals from ground control points and transponders (automatic transmitters) in each aircraft over the continental U.S. Data from each craft-identification, altitude, position, air speed and heading-are fed to computers at the control center.

The computer compares the data with the plane's flight plan. noting any deviation. Automatic corrections would be radioed directly to offending aircraft. Comparison of the plane's position

Station; David Vaughn, Longview; Doug McGowen, Mansfield and Paul Tabbert, Bridgman, Mich., arranged for the satellite at a time, feeding positional data to a computer for rapid analysis and possible corrections. The satellite Jakubowski's team

designed, called SATAN (for satellite air traffic avoidance and navigation system), is a threefoot octogonal craft weighing 615 pounds. The team called for one each to be inserted by Atlas Centaur booster in 22,300-milehigh synchronous equatorial orbits over the Eastern and Western U.S.

To keep the satellites on station a minimum of three years, the team incorporated into the design a 100-pound thrust monopropellant engine and nitrogen gas positional thrusters to take care of orbital discrepancies caused by the earth, sun, moon and major planets

Electronics in the solar panel- hicle specifications, structural anpowered satellite would give alyses and performance estimates, SATAN "a position fix accuracy the launch vehicle and trajectory

testing cost at \$1.5 million.

The other team designed a slightly different system, utilizing continuous transmission from the aircraft transponder connected to an inertial guidance system. The satellite, a cylinderical 380 pound, 51 inch long and 30-inch wide package, serves as an activer repeated to a central processing center.

The team composed of Frankie D. Allen, Robert H. Matthews and Richard N. Sharp of Amarillo; Rayford G. Broussard, Houston; James H. Johnson, Friendswood, and Raymond Serna, Robstown, indicated their system could handle more than 2,000 commercial aircraft per minute during peak traffic hours. They figured its cost at \$1.14 billion.

Both systems store data on corrective measures, flight plan violations and collisions for future investigation, tie in ground control and air traffic control radar systems and use existing components.

Team proposals included ve-



with others in the area would reveal need for course and altitude changes to prevent collisions.

of a tenth of a mile and 100 feet computations, orbit modifications altitude accuracy for 15,000 sim- and drawings. ultaneously controlled aircraft,"

kubowski of Damascus, Md.; Lar- computed 18 months design and good comments about the work."

Lowy said faculty members who

A team composed of Gary Ja- the Jakubowski team said. They heard the oral reports "all had

### Statisticians help route Navy

Navy tankers soon may be sailing on a scheduling system created here.

Such an operating system could save taxpayers at least \$10,000 a day.

The system was devised by Texas A&M's Institute of Statistics as part of an optimization grant from the Office of Naval Research. ONR has just announced a \$90,000 supplement to extend the grant through August 1974.

Dr. H. O. Hartley, Institute of Statistics director, said implementation of the new system is tentatively planned about the first of next year.

Texas A&M statisticians have been working approximately 18 months with two key organizations in the petroleum products distribution system, the Defense Fuel Supply Center (DFSC) and the Military Sea Transportation Service (MSTS).

ply Agency, procures 14 petro- explained, because operating exleum products at 35 different ports throughout the world. MSTS controls a fleet of approximately 60 tankers which transport the products to 100 destinations. Slightly over half the vessels belong to the Navy, with the remainder rented from commercial

shipping firms.

"Our goal is to minimize the combined transportation and purchasing cost for the shipments and still maintain scheduled delivery times," said Hartley, who had responsibility for technical direction of the project.

He explained transportation costs alone currently run \$360,000 per day.

"I believe we ultimately can reduce that cost five to 10 percent," he claimed.

Funds would be saved primar- as the time factor.

DFSC, part of the Defense Sup- ily on the rented vessels, Hartley penses are continuous on the Navy craft.

He said no estimate is available on savings on purchasing

When the project is in full operation, a schedule will be provided for each tanker, relating where it should go and what products should be loaded in specific ports, with all assignments accomplished within the shceduled time.

Included in the system are computerized techniques to determine comparative costs for purchasing petroleum products in such widely separated areas as Houston, Arabia or Caracas, Venezuela. Taken into consideration will be the expense of obtaining and transporting the products as well



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