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AEROSPACE EDUCATION COUNCIL OF IOWA

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Few people know that there is an Aerospace Education Council of Iowa, though it is entering its 25th year of existence. On December 17, 1956, almost a year before Sputnik, Iowa established an Air-Age Education Council under the auspices of the State Department of Public Instruction. This organization was to sponsor appropriate research, suggest needed curriculum change, and encourage the incorporation of air-age information in all areas of the curriculum, particularly in the social, physical and natural sciences.

The council was also to review and recommend the use of aerospace education materials at various grade levels. A prime function has been and continues to be the stimulating and supporting of aerospace education workshops and conferences. There is a concerted attempt at all times to maintain an updated list of quality speakers for state and local programs.

The council has wide representation. Appropriate groups involved with education were requested to nominate persons to represent them on the council. As a result, the membership currently includes school administrators, college/university educators, representatives of the Department of Transportation, Department of Public Instruction, United States Air Force, Civil Air Patrol, aviation manufacturers and classroom teachers and consultants.

During its early beginnings, the Council had a full-time leader. Before the Department of Transportation was reorganized, there was a director of aerospace education. A few years ago the Iowa Aeronautics Commission was absorbed by the Iowa Department of Transportation as it now exists. The position of aerospace education director was eliminated, which had an impact on the effectiveness of the Aerospace Education Council. The Council was reduced to functioning only at meetings and educators no longer had a central office with a specific person to go to for information. During this period of time, the Council was concerned about its own future. There were several meetings at which Council members were asked to reaffirm their interest and the feasibility of continuing. There was never a doubt concerning the need for an organization to promote aerospace education in Iowa.

During this difficult period, member Ray Kassel, with his organizational ability, helped change the thrust of the Council. The Council diversified and became interested in developing curriculum centered around all transportation activity in the state of Iowa.

Through a broadened base, we had hoped to become more viable and hopefully receive increased moral and financial support. A transporta-

tion education project that evolved from this new thrust was called "Move It." This was a hands-on kit that included units on all types of transportation in the state of Iowa, designated to provide the resources needed to teach the various units. The project was field tested in eight school systems throughout the state and the results were studied. The project, though well conceived and intelligently done, did not catch on.

Ray Kassel was appointed director of the Department of Transportation and he selected Al Hoover as the director of the Aeronautics Division, housed at the Des Moines Municipal Airport. Through their efforts, Jerry McMurray was employed and has a part-time responsibility in his job specifications to serve with the Aerospace Education Council. Once again there is a permanent telephone and mailing address for the organization. The support of the Department of Transportation is not only important but imperative to the continuation and effect of the organization. The same is true for the Department of Public Instruction. It is safe to say that the Council only exists because of the high level of cooperation that prevails between these two state agencies. This close liaison between the state agencies coupled with that of other individuals and organizations whose philosophies are consistent with the goals and objectives of the Council, insure that we will not deviate from sound and fundamental principles.

John Riley conducted a unique class at Iowa State University in the summer of 1980. The Aerospace Education Council gave support to a project designed to train instructors to build an airplane in school as a class project. The project met with success on campus and will be offered again in 1981, but it remains to be seen whether like projects will be developed in our high schools.

This project is but one attempt at an interdisciplinary approach to aerospace education. However, aerospace is more science-related and it is here that a greater emphasis is needed. The need is multi-faceted. A study by the National Science Foundation reported that any technical lead our nation may enjoy is now in jeopardy; that there is a current trend towards virtual scientific and technological illiteracy. The report went on to say that unless this trend is reversed, important national decisions involving science and technology will be made increasingly on the basis of ignorance and misunderstanding.

According to *Science News*, only 17 percent of all high school students take 11th or 12th grade science and math, and these are generally persons planning careers in science, engineering or medicine. Obviously there is room for some revitalization.

While airplanes and air travel are an important facet of aerospace education, they are just a part of it. In the age of space satellites, the development of the space shuttle, intercontinental missiles and space exploration there is so much more to learn. Advanced as we believe ourselves to be, we know we are only on the threshold of a technological future.

The Aerospace Education Council hopes to create a greater awareness and a greater interest among our schools and, eventually, our

youth. This will better guarantee that we achieve our potential. We have entered an age when we can no longer prepare youth to merely exist in our world.

Too little importance has been given to aerospace education in recent years. Space exploration has become commonplace and taken for granted. Conditions are ripe for a new emphasis. The growing interest is gratifying and the need is real.

Science teachers have historically done the better job of imparting aerospace education, but there is more to do. If we are to be successful, it is going to require cooperative effort. Those willing to join this effort, welcome. Hopefully, we will achieve together.

If you are interested in additional information in regard to the Aerospace Education Council of Iowa, contact Jerry McMurray, Education Specialist, Aeronautics Division, Iowa Department of Transportation, Des Moines Municipal Airport, Des Moines, Iowa 50321, or phone (515) 281-6518.

Frog Population on Decline

The frog for many people represents a most memorable event of their high school days. But the frog soon may be a thing of the past in the high school biology class. There is a growing frog shortage.

Millions of frogs are used in the United States each year in elementary and high schools, colleges, and medical schools, according to Richard J. Wasserug, a University of Chicago anatomist and frog expert. Additionally, frogs also are used in biomedical research and some people eat frogs.

Suppliers who collect most of these frogs from ponds now often find the ponds bare. The frog population is dwindling, Prof. Wasserug said, as humans encroach upon their environment by bulldozing ponds, constructing highways over migration paths, and polluting waters in which they lay their eggs, grow from tadpoles to adults, and hibernate.

Insecticides also wash into frog ponds or are inbibed in insects, taking their toll. Frogs are insect predators.

The frog is one of the best experimental animals for studying genetics. Next to the mouse, the frog is the most frequently used experimental animal.

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