



YOUNG SPACE BIOLOGISTS—Specializing in the study of the effects of space travel on man are these members of the space biology project of the Dickinson High School Science Research Club: left to right, David Beekman, chairman; Larry Williams and Buzz Pruitt.

Life in Space

At What Pressure Will Blood Boil?

By MACK WILDER

Last of a Series

DICKINSON — The last project group formed after the Science Research Club was organized last fall was the committee on space biology.

The members also have chosen perhaps the most ambitious and difficult subject of all, for them to handle with their available resources.

For these reasons, less has been accomplished, even in realistic planning, to date, by these members than most of the other project groups of the Dickinson High School club.

The project was inspired by the proximity of the NASA Manned Spacecraft Center, with hopes of obtaining assistance from scientists working there.

The project leader, David Beekman, said the group hopes to study some of the problems faced by man while in space.

"We hope to be able to find out what effect the added g's of takeoff, the rapid change from these to zero g's, and the subsequent reversal to the g's of the reentry would have on the astronaut," he said.

"We are also interested in seeing how the problems of life support systems, oxygen, food, waste disposal, temperature, and the others, are coped with in flight."

Obviously, the students can scarcely hope to get along on the trips to get first hand data on these questions. But they can study the reports released by NASA on what happens, as well as possibly discuss these matters with any NASA personnel involved who make themselves available for interviews.

Other questions in which the members of the group are interested include a study of how the problems of various types of radiation in space are solved by NASA, and methods of

detection of the radiation.

On these topics they need the assistance of NASA officials, and hope to schedule lectures by them before the entire club membership on meeting nights.

One experiment they have decided to do on their own is the determination of the pressures at which blood boils at various temperatures.

They don't plan to use actual blood, but some liquid which has the same density and vapor pressure as blood.

They also hope to be able to experiment in the problem of waste disposal in a spacecraft.

One of the problems which the whole club has is most intensely felt by the members of this group—how to schedule time to meet together.

Most of the members of the club are quite busy in school-related activities, as well as other activities. Thus, there is often a schedule conflict when meetings are planned.

In the case of the space biology group, the chairman, David, attends Alvin Junior College for a mathematics course on Tuesday and Thursday nights, the nights on which the club meetings are usually scheduled.

Larry Williams, another project member, has been in and out of the hospital a great deal this year, and has missed most of the meetings. Even the space biology project group itself has difficulty meeting together.

But Pruitt is the other member of the group. Milly Nicholas (of the ESP group) is expected to help with the project also.

Of course, the success of the projects, or the club as a whole, will not be measured

by the results of the project in the opinion of Warren Gafford, faculty sponsor of the club and chemistry teacher.

The aims of the club, as indicated already, are more to promote interest in science than to achieve concrete results.

As stated in the club's constitution, the club has five aims:

- 1) To stimulate interest in science.
- 2) To promote scientific study and individual research.
- 3) To relate scientific principles to practical research.
- 4) To supplement scientific principles with exploratory investigations.
- 5) To inform the public as to the activities of this group of dedicated future scientists.

These aims are to be achieved in the framework of "the study of the broad scope of science and individual research."

The club is a sort of scientific honor society in that members must either be a senior, have at least a "B" average in all science courses, be enrolled in at least one advanced science course, or have the approval of the sponsor. Most of the members meet all these requirements. All but one, J Moore, are seniors. Moore is a junior.

All activities chosen by the members are subject to the veto of the sponsor, who otherwise only acts as an advisor.

The organization of the club is meticulous with responsibilities and powers of officers and committees carefully outlined.

Meetings are devoted largely to exchange of information on progress of the various