Techers Go To See Skylab
by Terry O’Neil

Just what is the status of Project Skylab and is it possible to do a project doing under the direction of McDonnell-Douglas Corporation? On the fourth of May, a group of Caltech students went to the Huntington Beach facilities of McDonnell Douglas Corporation to ask these and other questions. What they found was a blend of hardware and wishful thinking that characterizes the new space program today.

Skylab A, consisting of a space station bus, is using the IVB upper stage, is being readied to fly in 1973. Compared to anything else the U.S. has flown so far, this is a monster. Its inner diameter is about 30 feet, its length about 60 feet. There are two decks, one for instrumentation and living and the other reserved for life-support equipment and storage. The major concession to a scientific community is the solar telescope mounted on the top of the airlock module. (The airlock itself is about 15 feet long.) Earlier plans to fly the SIVB up full scale needed the entire space before fitting it for human habitation, have been dropped. The stage flies up drag present configuration and the crew follows in modified Gemini capsule. The first mission, scheduled for thirty days, then a sixty-day, and later missions of up to 120 days.

The biomedical data from the thirty-day mission alone should keep a dozen or more in the medical and solar telescope is expected to yield at least some new observations about iridium. Skylab is really only an engineering flight which will precede longer and more useful experiments.

Continued on Page Four

News Briefs

ASCIT Says: Go Fly a Kite!

ASCIT will sponsor kite flying this Sunday at 2 p.m. outside the Student Union. Kites will be provided—or bring your own, if you prefer. If you have any tail materials, bring them. Prizes will be randomly awarded for random accomplishments (what else?). More information is available from Rick Kneugner (155 Page, ext. 2225).

General Daniel James To Speak Practically Everywhere

Brigadier General Daniel James, Jr., former U.S. Air Force officer in the United States Air Force, will participate in the Y-Lounge discussion “What’s Ahead in America,” Tuesday, May 18 and 17. On Monday, at 5:30 p.m. in the Student Union and Tuesday, at 12:30 p.m. in the General James will be interviewed by Rochus Vogt on the Olive Walk and will then head a discussion in the Y-Lounge. The “Y” feels that his visit provides Caltech with a unique opportunity to discuss the tough questions facing the military today.

Another One?

Tatum Comes Again

The see-it-still-flies one at Tech, but biology is a close second. Or so the figures on which option choices, released today from the Registrar’s office would indicate. It seems that only forty freshmen still plan to be physics majors. The rest are planning to study science, instead, with six humanities exceptions. The second most popular option is biology—32 signed up. Chemistry is the third most-desired option, with 30. Engineering and Applied Science claimed 28, while math brought in 26 eager young fresh. Twelve have chosen applied physics, the first time freshmen have had this option available to them. Astronomy got its customers 10. Economics, Engineering and Economics each claimed five fresh. Three choose geology, and English and Independent Studies each got one. No one chose History.

Comparing these figures with those available for fresh decisions in the springs of 1968 and 1969 show a few obvious exceptions. There were only 13 people who wanted to be biologists while 82 chose physics. (Numbers for 1968 are about the same.) Engineering was the second most popular option in 1966 with 33, followed in math with 31. (For 1966 the figures are 31 and 14 respectively.)

Tristano in Translation

New Offerings in Languages

By John Tristano

The Language Department has come up with a new system to complement their recent move to Baxter. Changes include giving humanities credit for first year language courses (provided a second year is also taken), a foreign literature course (taught in English), a new Russian professor, and a Chinese class (if there is sufficient student interest).

Literature in Transition, one of the new courses, will be discussed as Language 150 and English 150. The course will be a full year in length, with different literary periods being covered each term. The course will be altered every year so students will be able to take the course more than once.

The course will be taught by Jim Greenlee first as semester. Jim is currently in France, and it is expected that his experiences there will be part of his subject. “Post World War II French Literature.”

Annette Smith will teach the second semester. The course will be continued on Page Four

Baxter Dedicated

Come Rain Or Shine

by Phil Nehees

Every society has its rituals. In twentieth century America, one of those rituals is the dedication of a new building. These modern rituals were practiced Monday on the Baxter Hall of the Humanities, with appropriate pomp and circumstance.

The role of high priest and master of Ceremonies was filled by Dr. David Smith, Master of Student Houses as well as Associate Professor of English. After thanking members of the Caltech band for providing jazzy music, including the premiere of a modul work, he introduced the members of the Baxter Family.

Doctor’s Daughters

Dr. Donald Baxter, M.D., for whom the building is named, is survived by three married daughters, who, replete with husbands and children, were duly introduced to the audience of approximately one hundred. The funds for Baxter Hall were the gift of the Baxter family in memory of their father.

After the last of the Baxter granddaughters had had her turn at introducing the crowd...

Smith introduced Dr. Smith (Hallet D.), who spoke glowingly of Baxter’s heart and functionality.

Hallet concluded his presentation with two quotations from the Bible (Pilate’s words in the garden): “But much troublethe building the setting was a gift to the hands the house dropped through,” ( Ecclesiastes XXVIII). With these words, he asserted influence upon the Division of Humanities. And finally, both as a comment on the proceedings and as a gesture of appreciation to the Baxters: “A feast is made for laughter and wine maketh men: but money answereth all things.” (Ecclesiastes VIIX).

Dr. Dave Smith then introduced Dr. Sinzheimer, the token scientist of the day. Dr. Sinzheimer addressed the problem of the complementarities of and interaction between the humanities and the sciences in the present age of flux.

Man’s technology has advanced him to the point where he now faces a crucial decision, according to Dr. Sinzheimer. He can either choose to live with the environment which is essentially what he found it at the “great psychic cost of immense self-restraint, or choose to make his environment to his specifications, again at great psychic cost. We must recognize our fallibility, and shoulder the responsibility.”

Dr. Sinzheimer’s remarks, and indeed the rest of the program, were threatened by an unexpected turn in the weather as raindrops punctuated the program. However, the dedication program concluded with an outline of the immediate future plans of the Humanities Division from Dr. Hufnagel (Acting Chairman) before any serious damage occurred.

The dignitaries then adjourned for “feast” and “wine” at the Utopena

Ph.D. Orals Tomorrow?

Physicists (and PhRho Physicists) to take heart! Richard Price, B.G., sustained himself while writing his thesis by dropping into the Caltech Coffeehouse each evening for a cup of our “world’s finest coffee.” The Coffeehouse builds strong minds and bodies.

Oh, you poor fools...

Freshmen Choose Options

by Philip Masses

Physics is second one at Tech, but biology is a close second. Or so the figures on which option choices, released today from the Registrar’s office would indicate. It seems that only forty freshmen still plan to be physics majors. The rest are planning to study science, instead, with six humanities exceptions. The second most popular option is biology—32 signed up. Chemistry is the third most-desired option, with 30. Engineering and Applied Science claimed 28, while math brought in 26 eager young fresh. Twelve have chosen applied physics, the first time freshmen have had this option available to them. Astronomy got its customers 10. Economics, Engineering and Economics each claimed five fresh. Three choose geology, and English and Independent Studies each got one. No one chose History.

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Forest Gump Ceremony

Frosh, in 1968 tradition

The Caltech Glee Club will hold its Annual Home Concert this Friday and Saturday, at 8:30 p.m. in Beckman Auditorium. A variety of songs varying from Gregorian chants to selections from Porgy and Bess will be performed. Color slides of the Glee Club’s recent tour of the Bay area will also be shown.

Tickets to each performance are $2.50, general admission: $2.00, to the Caltech staff: $1.00, to students; and admission is free to ASCIT members.

Student Shop Elections Saturday

will be Student Shop elections on Saturday, May 15, at 12:30 p.m. (That’s what I like, short course, and to the point.)
What Will They Blow-up Next?

There was a time when bombs and bomb threats were limited to planes carrying heavily insulted passengers. Before that, bombs were common primarily to jokes about anarchists and Balshewits. Now it seems that one is not safe anywhere.

For several years, during the Fifties and Sixties, there was an occasional political or racial bombing, particularly of churches and liberal organization offices. Somewhere along the line, someone decided that bombing got the attention of the deal majors.

More recently, banks, ROTC facilities, and similar buildings have been targets of bombings and bomb threats. The stated purpose of those bombings was supposed to be to end violence and economic exploitation.

Now the bombings have a trifle more difficult to fathom. Now the bombs and threats include random facilities at universities, including dormitories and bookstore labs. have been threatened, and some blown up, with some loss of life. The odds are that sooner or later a major disaster will occur. We may be ending inhabited dormitory involved.

At this point, one might ask what people who phone in bombs or someone who phones in lots of insignificant bomb threats. The former occasionally injures or kills somebody, as well as destroying a lot of property. The latter in essence phone in bombs without much of life involved. Both are sick, at best.

People who phone in bomb threats are probably doing it for one of two reasons: either to destroy the bomber's reputation or to be the first to run outside.

Bombing for the sake of a point is no more to be condoned than bombing a church to kill children. Bomb threat reducers whatever can be done to them, for they are sadistic killers from whom life must be protected. Bombers kill with bombs and bombs. Both are dangerous and should be stopped.

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The California Tech bugs are a lot of things.

I thought the Associated Students of the California Institute of Technology, Inc. was a very good idea, and now I know.

There is no guarantee of finding a hidden bomb.

Even then, I don't feel that there are any political motives or tricks at work.

Bomb threat reducers whatever can be done to them, for they are sadistic killers from whom life must be protected. Bombers kill with bombs and bombs. Both are dangerous and should be stopped.

—Nick Smith
RAND Is Rational?

by Paul Levin

Dr. Henry H. Rowen, President of the Rand Corporation, spoke on the Planning/Programming/ Budgeting System (PPBS) at this week's Systems Engineering seminar. He explained that he felt a bit on the defensive because he was "speaking on a rational method of decision-making in a period when rationality isn't in vogue."

Dr. Rowen described it in this manner: "A careful specification and a systematic analysis of objectives; a search for the relevant alternatives, the different ways of achieving the objectives; an estimate of the total costs of each alternative—both direct and indirect costs, both initial costs and those costs that cannot be measured in dollar terms; an estimate of the effectiveness of each alternative, of how close it comes to satisfying the objective; a comparison and analysis of the alternatives, seeking that combination of alternatives that promises the greatest effectiveness, for given resources, in achieving the objective."

On paper this sounds just great, but on the whole it has not worked very well. The federal Government, at least, is sufficiently unimpressed so that it will probably discontinue use of the system or alter it in some way. What a Headache!

One serious problem has concerned the definition of goals. Government officials or businessmen, for that matter, "may know about their activities but not about their purposes." Congress does not attempt to legislate happiness: it merely attempts to create a good feeling through some measure. Government budgets contain very little discretionary money, and politicians who place little value on future expenses worsen this situation with large, long-term spending programs. Government agencies are reluctant to issue firm plans, even if they have a dollar constraint. In addition, some agencies do not want to use analysis techniques even if they are available, for fear that analysis might reach the wrong, or at least different, conclusions. Dr. Rowen referred to an "inadvertent conspiracy" between Federal agencies and local governments in an effort not to analyse Federally-sponsored projects. Each side feels that the other should do the work because it's his business.

The What Possibilities

There is obviously room for improvement. In spite of its difficulties and past failures, Dr. Rowen hoped that more analysis of public issues would be undertaken. Outside groups, such as those that derived into the SST, could perform valuable services. "Even Congress has recognized that it needs to improve its own analytic capabilities... no matter how it is done, it will be an improvement."

The scope of analysis, too, must be widened. Dr. Rowen repeated Dr. Morris Gelman's suggestion that factors such as beauty and effect on the environment should be considered. While it is hard to put a value on such things, other means can be used to rank objectives. He felt strongly that the objective should not be expressed in single-valued terms since few problems have only one objective. "You won't have the simplicity, but that's tough."

Last, he urged everyone to regard PPBS as "invention, that is a design problem."

The Rand Corporation has established an Institute in New York City to help analyse city's problems. While its work on housing "nearly got tossed out of the city, and may still do so," the first new housing measures in nearly a quarter of a century were enacted in the New York City Council last year. An analysis of fire protection also produced fruitful results. There are some projects he would like to found on, though.

How good is PPBS? Does it have a future? "How you regard it depends on your bias. Those who are entrapped with systems engineering will probably exhortation. If you favor flower power, look out, the analysts may be closing in on you."

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McDonnell-Douglas

Continued from Page One

missions to come.

This is where the wishful thinking begins. The McDonnell-Douglas team was told by the group indicated much concern that the company get the contract for the upcoming "space shuttle" craft, a reusable booster-glider combination expected to be able to make around one hundred round-trips to earth orbit. What followed were a set of artists' conceptions of multiple-module stations centered around the SIVB module, serviced and employed as space shuttles working semi-regular schedules from Earth. The time for such an operational capability was very busy -- "a hard time in the early 1990's." In spite of the vastness of the dates, the Caltech group left the briefing reassured that at least some plans existed beyond the next (and probably last) moon missions.

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Robert Wallace

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