THE SCHOOL OF TECHNOLOGY

TECH NEWS

CITY COLLEGE OF NEW YORK

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Dr. Turk Receives $60,000

By RITA SCHER

Dr. Amos Turk (Associate Professor of Chemistry) has just been awarded a grant of $60,000 by the Public Health Service to support a research project aimed at developing a new system of air sampling suitable for field use. The grant, which runs for three years, is of particular importance because no straight forward method for the collection and analysis of air samples exists at present.

Dr. Turk submitted the application for the grant specifying, in addition to the details of the project, his own qualifications. The Doctor has had considerable experience in the field of air pollution, and has been author and co-author of approximately forty publications. Previously, Dr. Turk had received a grant of $6,500 from the same agency to do work in the field of air stream analysis. In connection with this work, air samples were taken from all over the country and analyzed for extraneous gases and olefinic, unsaturated hydrocarbons. This was done in the hope of finding some one thing in the air common to all smog ridden areas.

As a result of this work the necessity of finding some method of air sampling which is easy to use in the field became apparent. The system which has been developed is quite simple. It consists of two absorbtion stages; the first is impregnated granulated activated carbon, and the second stage is a bed of brominated activated carbon. Air is drawn through by a small motor driven blower. The first stage allows light vapors to pass through, but traps heavy vapors with high efficiency and provides a sample for direct analysis. The second stage has the ability to trap light vapors and unsaturated hydrocarbons. Bromine compounds thus formed are analyzed and the light vapors identified.

It is the second stage of this system which makes Dr. Turk's work so important. There has been no method previous to this which allowed air sample analysis for light vapors and odorous unsaturated hydrocarbons. With this innovation it is hoped that greatly accelerated progress will be made in the field of air purification.

Dr. Turk graduated from CCNY in 1937 at the age of 19, Cum Laude and Phi Beta Kappa. He did graduate work at Ohio State University, receiving a master's degree in physical chemistry and a Ph.D. in organic chemistry. During WW II, he did research work

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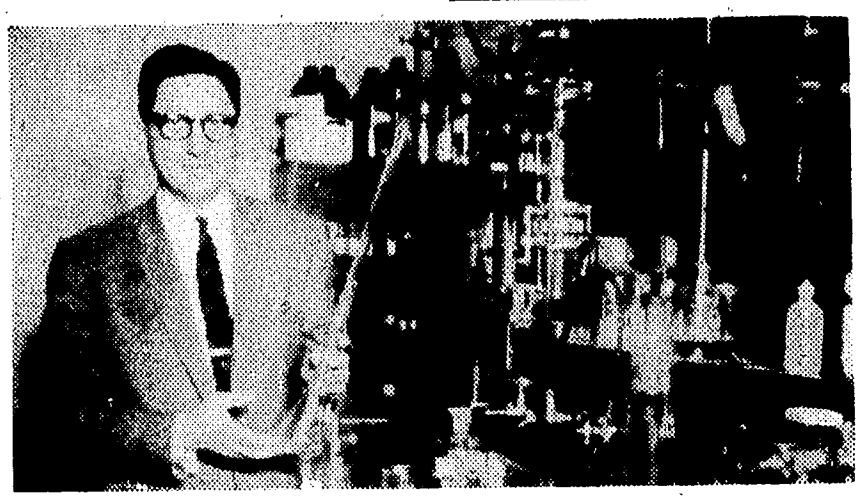

Dr. Turk and part of his equipment.

Over Twenty-One?

Have a Chauffeurs License?

Do You Want to Drive a Cab?

See Mr. De Martino

Placement Office, F 428

Mon.-Thurs. 1:30-3:00

Cadre Storms N. M., Juarez

By LARRY KOWITT

At 6:00 Friday morning, March 27, 50 sleepy and cold cadets lined up to board two busses for Mitchel Air Force Base. From there we were to fly to El Paso, Texas.

In a flash of brilliance, this cadet made the unfortunate mistake of strapping himself into a seat nearest one of the four engines. The noise was fantastic, and the vibrations nerve shattering. We were given cotton for our ears, but after seven hours of non-stop flight, that bird machine had taken its toll.

We landed at El Paso International Airport. When we disembarked we had an unusual experience. Anyone who talked sounded like Donald Duck, and we all had a feeling that a subway rtain was r o a r i n g through our heads. "Donald" left us a short while later, but the train kept on roaring through most of the night.

Waiting for us when we landed were two army busses and a Military Police escort. We

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Harold Berserk; Efforts Futile

I crouched in the hallway, waiting. I had seen a way out of my predicament and was about to act on my solution. I, Harold Childe, was about to commit murder!

Garth Havemeyer, my erstwhile confidant and boon companion, skipped down the hall, whistling. I sprang out at him, dagger in hand. He whirled at the slight sobbing noise I made as I leaped, and caught my hand.

"Why, Harold, why?" He implored, looking into my soul. "I thought we were buddies."

Rage and frustration got the better of me. I blurted out all. "It's all because of the E-Day Ball, April 11. I must take Brunhilde, your child-bride-to-be, or die of disappointment. It's the perfect opportunity for me to make some time with her. There'll be a band, and entertainment by the Musical Comedy Society, and prominent Broadway stars will be there . . . you told me so yourself last week."

Garth sorrowfully nodded his assent.

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E-Day This Saturday

By FRED BREN & MORTON COHEN

Engineer's day '59, in preparation for almost a year, will be held this Saturday. This is the Tech-School's most important extra-curricular function.

At 10:00 A.M. on April 11, the labs of the four engineering departments, the Military Science and Tactics Department, as well as the Drafting Department, will go on "open house" status for the day. Tech men will serve as guides and will be prepared to conduct demonstrations, many of which will amaze even their fellow engineering students. Of course one of the important purposes of E-Day is to give those whose major is not engineering an opportunity to observe equipment and phenomena they might otherwise never see.

Be you a budding engineer or a liberal arts major, a pert coed, or someone who has nothing to do this Saturday, you are invited to see your fellow classmates at work. The procedure for visitors will be as follows: Register first at "Tech Crossroads" in the Tech building (Goethals), where programs will be distributed. Guided tours will then commence .Films about rocketry will be shown between 12 and 4 p.m., the location to be announced in the program guide.

Invitations have been sent to high school students throughout the city in an effort to give prospective engineering students a better idea of the nature of the profession and perhaps help them in making their career decisions. In addition the various firms that conduct campus interviews have been formally invited.

Each department has prepared special demonstrations for this occasion. The nuclear reactor will be used by Mr. Menkes of the ME Department to make measurements of the half-life of radioactive specimens. Jet engines will be displayed by the department. Also, the ME's will show Mr. Lowen's project on vibration and elasticity.

CE Professor Muss will show techniques in water purification. A highway exhibit with aerial photographs will also be demonstrated by the CE's (see March 4 issue of TECH NEWS for description of above).

The EE's will show motors, generators, Jacob's Ladder, and other electronic "marvels."

Mr. Graf of the Chemical Engineering Department will demonstrate an analog computer. All Ch.E demonstrators are to meet tomorrow at 12:30 (location is posted on AIChE bulletin board) to complete their E-Day plans.

The Drafting Department will offer a display of architectural models and drawings as part of its program. The Department of Military Science and Tactics will exhibit, among other things, land mines, booby traps, and demolition equipment. Watch your step!

E-Day, which will officially end at 4 p.m., is the culmination of months of hard work and sweat on the part of many individuals, both students and faculty, but your attendance will be sufficient reward.

Building Cost

The following bids have been accepted by the College Business Office for construction of the new Technology Building.

General Contractor:	
Frouge Construction Corp., NYC	$3,639,000
Heating & Ventilation:	
H. Sand and Co., NYC	$825,200
Electrical:	
Nager Electric Co., B'klyn	$1,129,000
Moving Stairs:	
Pule Co., B'klyn	$348,285
Elevator:	
Armour Elevator Co., LIC	99,758
Plumbing:	
H. Norinson, Bx...	$364,000
Casework:	
Duralab, NYC	$110,000
Overall Total	$6,525,156

Compiled by Al Blacksburg

Gov't Jobs

Those graduating seniors that are worried because commencement is approaching and no job is in sight might inquire about career opportunities with the Bureau of Reclamation or the Federal Communications Commission.

Radio Engineers are needed in the Federal Communications Commission for work throughout the United States. College seniors with 9 months to complete their engineering or physics degrees, or graduates, may be qualified to apply for positions paying $4,490 per year; those with 1 year of graduate study, a B average or graduates from the top 25% of their class may be eligible for positions paying $5,430 a year. Some of the areas of work covered

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New Pretenders to E-Day Throne—Coronation Saturday

Left to right: Audrie Sherman, Charlotte Solomon—Tech News; Ellen Van Lesser, Susanne Klinger—ASME; Kay Saltzman, Rosemarie Gannone, Stephanie Grant—AIChE; Jeanne Potter—Pershing Rifles.

TECH NEWS

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Twenty-six years ago, the outlook for graduating engineers was dismal at best. Admittedly, conditions are considerably better today. Although we have not had a 1929-style crash and depression, we have just come through a serious "recession." But, just how much better off is the graduating engineer today than his predecessors of 1933? Look what TECH NEWS had to say then:

To Our Graduates

Within a few weeks the Tech School will graduate the largest class in its history. Its students leave in the midst of this serious depression period, entering a pessimistic, despondent, and discouraged world — quite unlike that which existed when they started their college studies.

What is our message to the graduates? Shall we add our voices to that veritable horde of politicians and quack economists who have been preaching optimism ever since the stock market crash in 1929, obscuring rather than solving our difficulties? By no means, nor will we add our voice to the "prophets of doom."

We can only urge our students and graduates to develop for themselves sufficient social background and vision to understand their economic and social bearings, to be able to solve difficulties as they arise, to evaluate and sift for the mass of trash which today passes for serious social thought. We urge them to formulate if possible a definite social outlook instead of their present floundering and apathy.

For the immediate future the outlook, we believe, is not particularly bright. In spite of all the political and industrial ballyhoo which is now telling us that we have passed the bottom, that we are climbing upward — in spite of the "New Deal," and the National Recovery Bill, things are not particularly hopeful for the young engineer. For even if the wheels of industry start rolling, the older and more experienced engineers who must be reabsorbed before we will be considered, leave us out of the picture for a considerable time.

Shall we therefore lose contact with our profession, our work, our studies? We hope not. We must make every effort to return and further the technical training which we have acquired over so long a period.

We are well aware of the pessimistic attitude of our graduates as regards employment, of their doubts as to the "value" of their education, etc. It has led many of them to a peculiar state of mind, a sense of futility, a remarkable apathy towards their studies, social relationships, and outside interests. The sooner this attitude is dropped, the better, for it can only lead to dire consequences.

(*Reprinted from TECH NEWS, June 2, 1933*)

VECTOR REVIEW

By ARTHUR APPEL

Organized in terms of the questionnaire circulated by Vector last term, the March issue, which goes on sale today, should interest the majority of students. Certainly the range of articles from Lab Close-ups to Atomic Reactor is well balanced. This variation in subject matter is highly desirable and satisfying. The writing in general is fairly competent and did not suffer too much from the usual engineer's fault of wordiness.

Foremost among the articles is the revitalization of an old feature, VECTOR Visits, which in this issue concerns the Naval Air Rocket Test Station at Lake Denmark, New Jersey. The article, which is a first person account of a visit to the center, describes in detail a valuable government installation. Because of this unusual approach, it presents much information in an interesting manner.

Possibly the feature which received the greatest scrutiny mainly because of its relationship to ourselves, is Lab Close-Ups. The article offers brief portraits of the lab technicians at City College. The authors are to be complimented on their choice of tongue-in-cheek quotes.

Notable for its detail is Ed Kiburis' feature, Indian Point Reactor. Describing a privately owned atomic installation the article offers a close-up view of a contemporary subject. Although for the most part this article is an interesting technical work, in parts it seems like a lecture that might be of interest to high school or chem one students.

Something which I miss in this issue is the usual portraits of student leaders and faculty members. I have grown accustomed to seeing this feature and feel that most students look forward to seeing their friends and teachers in print.

The article Single Side Band, was reprinted from a previous issue. The least that the staff could have done was to bring it up to date, in face of new developments in the field.

With an apparently large staff one might think that the magazine should not have to resort to reprints of articles already once used.

The usual features, Engineering Highlights, Vector Volts, and Stolen Stuff were up to par.

The semi-annual Slide Rule competition for EE 104 students will be held Monday, April 13, 5:00 P.M. in room H204.

SAME Hits Southwest

(Continued from Page 1)

were taken to the U.S. Army Air Defense Center, Fort Bliss, Texas (where we were quartered for our entire stay) for our first lecture on the Nike guided missile. We were shown films of the Nike Ajax, and Nike Hercules in action.

Next we were moved into a large adjoining room. In this room there was a large grandstand, in front of which was a sand box containing a working model of the typical Nike base. Assembled along the entire front wall were the complex computers, radar sets, firing boards, and other equipment (all normally found in different parts of a Nike base) needed to set up one of these sites.

Then the staff put on a mock demonstration of the detection and identification of an enemy aircraft, the launching and homing of the Nike, and the inevitable destruction of the airplane.

With each step, an instructor explained what was going on. After this the entire demonstration was repeated. This time it was done just as though we were under real attack; it was all over in less than two minutes. Next, we moved outside to watch the Nike being raised on its launcher. When we reached our quarters we were free for the rest of the evening.

A day on a military post begins very early. We were up at 6:00 A.M., had breakfast at 7, and were free till nine. Then for an hour we toured the Old Fort Bliss Replica. This museum, a gift from the citizens of El Paso, houses a collection of rifles, pistols, swords, and cannons which show the growth of the old South-West. Besides this, there is an exhibit of some Japanese and German equipment used during World War II.

For the next hour and a half we saw and learned a lot about the Nike missile family. In one demonstration, with life-size, working models, we were shown the special design of the Nike fuel tanks. The construction of these tanks is such that no matter what the angle of the missile in flight, the gas tanks will continue to supply a steady flow of fuel to the motor.

The next demonstration was of the checkout equipment of the Nike with which the missiles men can test the reactions of the rocket before it is actually fired.

To teach these men as much as it can about the missile—and as many men as possible—the Nike school has T.V. classrooms. We were given a demonstration of this and were also shown the operation of the T.V. studio itself.

At 12 noon, we were free to tour El Paso, and also to cross the border into picturesque Juarez, Mexico. All day Sunday we were free, and many of us took advantage of this to return to Juarez to see the Bull Fights.

On Monday, we came to the primary purpose of the trip, a visit to the Army Missile Test Center, White Sands Missile Range, New Mexico. At 8:30 A.M. we were settled in a grandstand about 1,000 feet from the launching truck of the Lacrosse artillery missile. First we were given a briefing on the missile and then issued high power field glasses. Tension grew as the count-down neared zero.

Finally the fire button was pressed. The Lacrosse roared into life, belching bright red-orange flame. In an instant the missile was airborne and had cracked the speed of sound. About a second later, we heard the stunning, explosive roar of the engines, which gave us quite a jolt. In flight, however, the missile went haywire and plunged to the fround far short of the target. We were told that it was probably a malfunction of one of the four tail fins.

We saw three more missiles fired during the day. Two were long range artillery rockets known as Honest Johns. The last missile fired was another Lacrosse, but this one was completely successful. In all the shots, the flame and noise gave the same impression: power!

There are various ways of gathering information on missiles in flight. Telemetry is one way; the data is sent from the missile itself to instruments on the ground. Film and radar are used extensively to gather even more information on the rocket. White Sands is "big" in every sense of the word. There is $78 million worth of instrumentation stations and range structures alone on this base.

At the Redstone Service Area we were introduced to the giant gantry crane, used to work on the missile at various heights. This monster is mounted on railroad tracks that go right through the launching pad. Upon entering the first part of this "Thing" that caught my eye were the wires. Wires everywhere, enough to go around the world five times. So well designed is the crane, that it can move up to its missile in 1/64" increments, or it can spin its railroad car wheels if it has to. Besides all the controls in rooms inside the crane, there is what is called an emergency backoff switch in the blockhouse. When our guide threw this switch, bells rang and whistles blew. Then the platforms on the giant crane began to open automatically. When the service platforms were open, the crane began to move away from the launching pad. If the switch is left alone, the crane will then back up to the end of the track and park itself. A very handy thing if there is an emergency and the missile area must be cleared immediately.

The launching pad itself doubles as a scale. This is to measure the weight of the liquid fuel in the rocket, the only way to tell if the tanks are full. Our attention was called to a tower right next to the pad. From thist tower, we were told, the first movie films were shot right up the flaming tail of a Redstone missile.

All too soon, however, it was time for us and the members of the cadre who came with us, Maj. M. Guest, Capt. A. Papajohn, and Sgt. A. Bartman, to return to New York and home. Of one thing I am sure, most of us will remember this trip for a long time to come.

TECH LIFE

By MARK LEEDS

AIChE-ARS

AIChE and ARS members are conducting a joint meeting tomorrow in H103 at 12:45. Al Blacksburg, a senior Ch.E major, will speak on "Liquid and Solid Propellants in Rocket Design."

AIEE-IRE

AIEE-IRE is holding a meeting tomorrow in S306 at 12:20 P.M. Mr. Benedict of North American Aviation will lecture the group in conjunction with the Spring lecture series, "Engineering Employment Surveys."

ASME

The selection of the winning paper in the ASME City Chapter Student Paper Contest will be held tomorrow in S235.

SAME

Last night, SAME members attended the meeting on "The Role of the Engineer in Civil Defense." The meeting of April 15th will be highlighted by a speaker and film about "NIKE," to be held at 5 P.M. in H003.

Word is traveling around that Eric Seagren, President of the SAME, lost his pants in Juarez, Mexico during the ROTC's recent visit to Fort Bliss, Texas. Efforts are being made by the American Embassy in Mexico to recover same from a certain party at IRMA'S. Good luck, Eric! (Seriously though, the pants were lost in the Army laundry.)

ASCE

On Friday night, April 17th, the American Society of Civil Engineers will induct its new members into the student chapter. The evening's events will include dancing and entertainment by Pete Agins and his orchestra, a catered Buffet Dinner, Faculty and Student Skits, and of course, the Induction Ceremonies. The fete will be held in the Finley Center Grand Ballroom, and is restricted to ASCE members and affiliates, and guests of the organization.

ASME

Last Thursday, Professor Harold A. Rothbart (M.E.) spoke before the ASME membership on high-speed machinery. He discussed the limitations on fast operations and presented some new concepts in the field. He said that "mechanisms act like springs in high-speed operation. Herein lies the problem of how to make machines go faster." Professor Rothbart provided a few humorous examples of errors made in machine design in the past and a film was shown illustrating elasticity in a cam shaft.

Professor Rothbart spoke briefly about his coming trip to Europe where he will make a lecture tour of several countries and speak before professional and student groups.

This Thursday, ASME will have its Annual Student Paper Contest. All students are encouraged to attend the presentations which will take place in S315 at 12:30 P.M. sharp.

. . . Jobs

(Continued from Page 1)

by the FCC are the allocating, licensing, and enforcing of band frequencies for radio services. Students who are interested are urged to inquire at the placement office. Applications should be addressed to The Executive Secretary, Board of United States Civil Service Examiners, Federal Communications Commission, Wash. 25, D.C.

The Bureau of Reclamation is interested in all types of civil engineers as well as mechanical and electrical engineers for work on irrigation projects. Starting salaries are $4490, $5430, and $6285 a year. The bureau plans, designs, and builds engineering works to supply water to farms in 17 of the far western states. The work includes such functions as the development and design of, or preparation of, specifications for irrigation and hydroelectric power systems, structures, machinery, equipment and related facilities. A knowledge of applied and theoretical mechanics and of strength and properties of materials is applied to the above problems.

. . . Air Grant

(Continued from Page 1)

in the field of high explosives and rocket fuels while working for the Office of Scientific Research as a research associate. After the war, Dr. Turk returned to City College as a lecturer in the Chemistry Dep't. Shortly thereafter he left to fill the post of Director of Research and Development at Connor Engineering Corp. in Danbury, Connecticut where he worked on activated carbon systems. In 1954, Dr. Turk returned to the College as an Assistant Professor in the Chemistry Dep't.

E.S. Leadership

Evening Session Student Government is conducting a Leadership Training Weekend on Saturday and Sunday, April 11 and 12, 1959, at the John H. Finley Student Center. This program will be open to all students of the College, and the only fee will be a nominal one of $1.00, which will go towards the expenses incurred for lunch and materials.

. . . Harold

(Continued from Page 1)

"And since it's only three dollars per couple, I can afford it for a change," I continued. "It's at a good time, 8:30, and in such a romantic place (the Grand Ballroom). And if I don't buy my ticket in advance, I can always buy one at the door. I tell you, the E-Day Ball was my last opportunity before your wedding." I stopped, overcome with emotion.

"I'm sorry for you," Garth said, frankly, "but it was all for nought. Brunhilde ran away with an Arts major two days ago."

We walked down the hall together, arm in arm, two beaten men. The long night was over.

Sports

By HERB WEINER

The most thrilling Slide Rule League basketball game of the semster was won last Thursday night by AIEE, 51-48. The EE's adversaries, ASCE, dominated the scoring throughout the better part of the game. With two seconds left before half time, Randy Pile, EE, put in a layup leaving the score 24-22 in favor of the EE's.

At the final buzzer Mickey Salis, EE, was fouled with the score CE 44-EE 43. With the game in his hands, Mickey swished the first of two. His second shot hugged the edge of the rim and fell unmolested to the ground, forcing the game into the first of two five minute overtimes.

At the end of the first overtime the score was notted at 46 apiece. The CE's took a quick two point lead at the outset of the second overtime. The EE's battled back and with one minute remaining they had a two point edge and possession of the ball. Due to a "must" foul, Chuck Brodsky, EE, hit the clinching foul shot with ten seconds left.

Walter Cascell, EE high scorer with 17 points, generaled his team through the contest and kept the team clicking. John Bagley, high man for the CE's with 19 points, and John Lopuch kept their team in front by constantly sweeping the boards.

Before the short Easter break, AIEE topped AIChE 44-36 and ASME lost to ASCE 45-28. Last Thursday AIChE failed to field five men and forfeited to ASME.

TIIC MEETING

TIIC will meet every other week except when the president deems it necessary to hold meetings weekly.

Mr. White suggested that meetings might be held every other week after E-Day as most of the Council's work for the term has been concluded. He went on to comment that the constitution is almost finished and our main activity of the term, E-Day will be held this Saturday.

At the past two meetings the E-Day Ball and E-Day formed the major subjects of discussion.

According to the chairman of the E-Day Committee invitations have been sent to high school students in the metropolitan area in an effort to attract potential techmen to the open house.

Ticket sales for the E-Day Ball, to be held at the conclusion of the Day's festivities, are going well, with more than two-thirds of the tickets already pledged to students and organizations. In addition to the advance sale, tickets may be purchased at the door the night of the Ball, April 11.

Another order of E-Day business handled was the appointment of Ingrid Lindfors, SWE President, as Chairman of the Refreshment Committee. Professor Avalone, faculty advisor of TIIC, reported that "in general, E-Day planning has proceeded very smoothly, and we expect this years' presentation to be among the best in College history."

Turning from E-Day topics, the Council discussed briefly the problems of the Calendar Committee. Member organizations had been asked to turn in calendars of events to the Committee for correlation. Unfortunately, the response was nil. Therefore, the committee was disbanded.

— Rita Scher

BOX SCORE, APRIL 2

AIEE		ASCE	
Pile	4	Spirgel	5
Cascell	17	Bagley	19
Berler	7	Lopuch	8
Weinberg	2	Reistetter	14
Ebersman	7	Liss	2
Brodsky	3	Keller	0
Silver	2	Gullotta	0
Lavacca	4	Lewitt	0
Salis	5		—
	—		48
	51		

Pi Tau Award

This semester, Pi Tau Sigma is offering its semi-annual Mark's Handbook Award.

The award is made on the basis of service to the Mechanical Engineering department, and work done by the student to foster mechanical engineering.

Applications for the award can be obtained at the Mechanical Engineering office. The award will be presented at the Pi Tau Sigma induction dinner which will be held Saturday evening, May 2, at the Barbizon Plaza Hotel.

The first recipient of the Marks Handbook Award was Max Zaslowsky, former president of TIIC. Last semester, Morton Rosenberg received the award.

Mechanical Engineers Acquire Jet Engines

By ED LATIN

City College has formally entered into the Jet Age with the acquisition of three small jet propulsion engines. The engines on display in the M.E. heat power lab previously were used in propelling target drones and guided missiles.

Engines designed for this type of mission are generally not recoverable, but these appear to be in usable condition. It is extremely doubtful that they will be operated by students because of the extensive test facilities and costly sound suppressor that runs require.

One of the jet units has been completely taken apart for the benefit of those students and visitors wishing to become more familiar with its construction. A large assembly drawing is also provided showing how the design was worked out to produce a durable unit of light weight, inexpensively. It is rumored that Phil Seidenberg wants to run one of the engines outside just for E-Day.

The engines, built by the Fairchild Co., are two feet in dia. and about six feet long without the tail cone section. In this installation the tail cone is part of the missile. A unit of this type will produce a static thrust of about 1,000 lbs. at standard conditions and full throttle. Operating under these conditions the engine experiences a throttle (turbine inlet) temperature of 1400 degrees F and turns over at about 16,000 rpm.

Some impressive design features are found by examining the engine. In this configuration a combination centrifugal and axial compressor is utilized. The reason for this is that centrifugal compressors are cheaper to construct but are large in diameter, hence the above mentioned compromise.

Also unique is the annular, integral type combustion chamber. Because of the large amounts of excess air necessary to protect the vulnerable turbine it is very difficult to support combustion in a burner of this design. Credit must be given for the successful operation of this type burner of extremely thin gauge steel that must withstand immense heating.

The single stage turbine has the bucket blades on its rotating member welded in place. This is an extremely sophisticated design in consideration of the vibrations and differential expansion that the turbine must resist.

Finally, a fabricated construction is used to reduce weight and eliminate unnecessary castings wherever possible. Ignition time for this engine is an impressive three seconds for starting and fourteen seconds to full power.

All in all, this engine contains a tremendous amount of information for anyone who takes the trouble to walk over and see it.