**Friday evening lecture series**

**The Friday evening demonstration program will be expected to be varied and fascinating. This is the time for the well-known "High Volts" and "Liquid Air" demonstrations which many may wish to see again.**

**Harrison Brown tonight**

Tonight Dr. Harrison Brown will start off the week-end lecture series with an exciting talk entitled, "Astronomy of the Earth." A problem which has always been of first importance to geomorphologists has been to find out what is the shape of the earth. Professor Brown will give a demonstration, "Gyroscope." Then on January 30 Prof. R. W. Sorensen will demonstrate "The Modern World at Asilomar." Dr. Litton will take over with "The University of the Sciences in Italy." On January 23, Prof. L. Davis will give a demonstration of remarkable instruments which are used in our modern world. He will also give a demonstration of "Gyroscope." The audience will be ahead of the issue date at all times.

**Guided tours of campus continuing this term**

Guided tours of Caltech were started during the fall term and will start off the week-end lecture series with an exciting talk entitled, "Astronomy of the Earth." A problem which has always been of first importance to geomorphologists has been to find out what is the shape of the earth. Professor Brown will give a demonstration, "Gyroscope." Then on January 30 Prof. R. W. Sorensen will demonstrate "The Modern World at Asilomar." Dr. Litton will take over with "The University of the Sciences in Italy." On January 23, Prof. L. Davis will give a demonstration of remarkable instruments which are used in our modern world. He will also give a demonstration of "Gyroscope." The audience will be ahead of the issue date at all times.

**Committee of seven to offer top foreign and American movies starting Jan. 12**

Martin Karplus, chairman of the Film Art Society, has announced that the Caltech YMCA will co-sponsor the society's annual film program. The committee, augmented by Karplus and his colleagues, will become a feature of the YMCA program. The change is expected to assure the continued production of the committee, and to provide an opportunity for film programs in the future.

**Application for Peace**

A representative of the American Universities Field Staff will visit Caltech from January 13 to January 21 to report on present-day Egypt. He is one of a small staff of experts who have recently returned to a stay in Egypt.

**Organization of AUPS**

The American Universities Field Staff is an organization set up by the Board of Trustees of several colleges. He will be a guest for dinner in Blacker, Dabney, and Ricketts houses. On January 15, he will address graduate students and faculty at lunch and dinner in the Athenaeum. On this occasion he will speak of "Islam and the Mountains" and "Islam as a Religion." Mr. Nolte is well-known as an authority on Middle Eastern affairs, and has studied in Turkey; and H. Doug Borchert, who is studying China.

**Disdistinguished scholar**

Mr. Nolte has been awarded an honorary degree by the University of Geneva. The award was given in honor of the "American Universities Field Staff" which has made contributions to the advancement of science and human welfare. Mr. Nolte has attended many international conferences, and has studied at Oxford University, England.

**Harris Brown tonight**

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What a stinking paper this is

Most people when they read a newspaper don’t realize what really goes into the production of it. Perhaps they think of all the writing that must be done just to make a few news stories. But there is much more. Journalists don’t go into the business and people don’t work for the California Tech just because they like to write. It is the experience that precedes the story that is really interesting. Reporters are the first ones to experience the news, they meet interesting people and see interesting things.

Determined on a rather insignificant weekly such as the California Tech, the reporters do interesting things. A reporter was once asked to find out what all that construction was behind the physics building and found that investigating the story led to a new story. He was mildly startled by a strange black-and-white oil painting of a cat, from under the car and gave the cat a quick glance. "If you’re trying to feed me, I prefer SAE 20, and if you’re trying to put it into the engine, wait until I get the pan back on!"

Jet ace

Over the vacation, daring, fearless Chuck Benjamin tried to put an F-86’s Starshades through the sonic barrier, and while whistling along at 25 he managed to amaze spectators by a spectacular ground loop.

A rather comical anticlimax occurred when Professor Kelsen was leaving a local Studentvhaker agency for getting a repair estimate and was forthwith struck with the story in the agency’s corner. Some people just don’t live right.

Several Flemingtons, notably Ed Gehle, Ken Kastella, and Ray Griseners, have not yet recovered sufficiently from New Year’s return to fair Pasadena. Some people just don’t live right.

Da con on more under mist blethough
Grande genget. Good yare hre.
—From “Bewwull” Requiem

We will now bow our heads in silence for a few moments to find memory of those so recent—ly departed from the beloved halls of Bickertia. (Indian run-

ders have not yet brought lists of the dear departed from the other Houses). The following have gone to their reward by shuffling off this mortal coil and leaving this vale of tears.

Dick Millard (Sob)
Bill Parker (Sob)
Shel Kaganoff (Sob)
Larry Schwalberg (Sob)
Kay Hoka (Sob)
Van Conway (Sob)
Kim Hamburger (Double Sob)

Kim had the misfortune of getting married, not flunking!

Hello, down there! To those good men, we can only say: Requiescat in Pace.

To Bill Gardner goes the term’s first stellettel jock. This eager engineer, ever conscious of the value of time, poured sev­
eral quarts of oil into the engine of Bob Easton’s car, en

The house chairman of the temporarily inactive Instituters

schedule and make plans sufficiently early.

The reporters do interesting things. A reporter was once

Because cars. Some people just don’t live right.

It appears in the latest

Copy Staff: Bili Barlow, Marv Beinstock

Sports Staff

George Johnston

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A style leader! Par has a smart, soft, widespread collar that looks handsome... feels wonderfully comfortable. Especially good-looking with Windsor-knot tie. Tailored of fine, “Sanfor­ized” broadcloth, French or button ends. Ask us for Arrow Par today.

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THE SPACE BEAVER
By WALT LEE

Beyond the stars, the sky is a vast, H. L. Gold, editor of Galaxy Science Fiction, has announced that a fantastic magazine is soon to be published as a sister publication to Galaxy. The new maga­
ine is to be the title of Gold’s new magazine. Beyond will be on theville during the week of May 3, 1953.

Although the general format will be similar to Galaxy, the cover design will not. The editor wants “a story of the "wishful" type. He does not want the "story-teller" type of story. We might well imag­ine that a good example would be a story of a room that was really a spaceship but Lucifer,” co-authored by L. Sprague de Camp in the Sep­

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SEC'S AT TECH

by Bernice Schweitzer and

Happy New Year, fellow suf-ferers, and may your days be brighten-ed by such creatures as the one smiling at you from the right.

Her name is Patricia Ann Murphy, though she answers only to "Pat." Born in Birmingham, Alabama, Pat and family wandered through Texas, Louisiana, Arkansas and Alabama, before reaching California. This last was accomplished 13 years ago, when Pat was five years old (mathematicians take note).

By the time she got to McKinley Junior High, Pat was a native California. At present, Pat attends PCC in the mornings, working at Tech from 1 to 5 in the afternoon, Monday through Friday.

As to her work here, Miss Murphy is officially a clerk-typist in the Graduate Office. Her main job is transcribing letters and forms, and, being lighthearted, Pat is often called upon to do a little footwork on the side.

Pat worked at Tech this summer, and from February to Septem-ber she will be here on a full-time basis. After September she will go back to the present part-time assignment.

Pat's outside activities are va-ried. Whenever the weather permits, which is usually every Sunday, she takes off for Little Corona beach. She likes to dance, and when the snow is available she likes nothing better than a toboggan ride.

At PCC, where she is taking business courses, Pat is vice-president of PAM. Just before coming to Tech, Pat was a secre-tary in the main office of the Huntington Hospital.

When asked what she thought of the guys here at Tech, Pat re-plied, "Well, they're studious." She also remarked that the In-terlouise dance, which she was at, even when compared to any other social she had ever seen, "was the tops, just fabulous."

Strange Interlude

The remainder usually pro-ceeds along the following lines:

I: Do you have (here I name a well-known reference work or text, perhaps suggested in course work)?

Salesperson: No, but...

II: How long will it take me to get the book?

Salesperson: A week or ten days. (Continued on Page 6)

Radio-stars located by Wil-Pal astronomers

Three new sources of "radio noise" from outer space have been identified photographically by the Mt. Wilson Palomar telescopes after their presence was detected by astronomy's newest tool, the radio telescope.

Two of the sources, Cassiopeia A and Puppis A, appear to be turbulent gas clouds in the Milky Way, and the third, Cygni A, the scene of a collision on a scale so gargantuan that it could occur only beyond the borders of our galaxy.

Briefly, radio astronomy has emerged with the development of microwave and VHF receiving equipment which is used to detect radiation from space in the radio spectrum which is not detectable by using optical instruments.

Such radiation was first dis-covered originating in the Milky Way and later in our sun. But astronomers realized the impor-tance of identifying other radio sources with known objects in the cosmos by optical correla-tion by radio astronomy.

Diameters checked

Although the Crab Nebula and a few other radio sources were identified before the last war, the two strongest emitters just found did not as easily fit into this category. R. Baade and Minkowski set out to find the source, knowing that the approximate locations, supplied them by radio astronomers in Australia, New Zealand, and California.

Radio-telescoope

Noisy cloud

Cassiopeia A coincides with the center of a remarkable em-is-sion nebula, which many astronomers believe is on a scale so gargantuan that it could occur only beyond the borders of our galaxy.

The two strongest emitters just found did not as easily fit into this category. R. Baade and Minkowski set out to find the source, knowing that the approximate locations, supplied them by radio astronomers in Australia, New Zealand, and California.

"I should go home to the little women—just love these Old Fashionsed with plenty of Angostura™"

(Continued on Page 7)

SPACE BEAVER

(Continued from Page 2)

This week the 25-2002 edition of the Sunday Times magazine published with more stress on science fiction pulps on the science fiction pulps.

The Saturday Evening Post has bought another Bradbury story and Esquire has bought two.

Have you worked in the Industrial Relations Department more than 3 years?

Are you a specialist in electronics or nuclear physics?

Would you be interested in a new position of opportunity?

If your answer to these questions is: Yes

Write in Confidence, Giving Background, to

Box 9, Boxing Green Station, New York, New York

Only time will tell about young love! And only time will tell about a cigarette! Take your time...
G. H. ORGELMAN, Engineering Personnel Representative, Chance Vought Aircraft, will interview graduates of the class of '53 in the Placement Office, JAN. 19th, 20th. Mr. Orgelman is looking forward to the opportunity of discussing with you...

Chance Vought Aircraft, a designer and builder of military aircraft for 35 years, offers the graduating engineer and scientist an opportunity to join in the design and manufacture of fighter aircraft and guided missiles.

The design of fighter aircraft is constantly being improved as new materials and more powerful engines become available. Guided missile design is in the pioneering stage and progress up to this point, in our opinion, can be compared to the period of development of piloted aircraft prior to World War I. Imaginative thinking as well as sound engineering is an important part of these programs. The young engineer through his creative thinking can rapidly assume a position of engineering responsibility in the Chance Vought organization.

Almost every type of academic specialization can be utilized in some phase of the design, development and test of a jet fighter or guided missile. Technical assignments are available in the design and analysis of specialized electronic components, structural and mechanical design, applied aerodynamics, power plant analysis and testing, stress and vibration analysis and flight testing.

If you are receiving a degree in Aeronautical Engineering, Mechanical Engineering, Civil Engineering, Electrical Engineering, Mathematics or Physics, Chance Vought invites you to discuss your future in these fighter aircraft and guided missile programs. Contact your Placement Director for an appointment with the Chance Vought Aircraft representative.

ChANCE VOUGHT AIRCRAFT

Dallas, Texas

DIVISION OF UNITED AIRCRAFT CORPORATION
**Mars, Jupiter**

(Continued from Page 1)

It is understandable why the astronomers don't wish to squander those precious nights on objects so close to us.

The left photograph of Mars was taken with a plate especially sensitive to blue light. It shows the variable atmospheric conditions and clouds or haze in the atmosphere of Mars. In the upper portion of the planet and at its lower left the haze is thin. At the top and bottom are the polar caps, which appear in the fall season of Mars and disappear in the spring.

The right photograph was taken through a red filter on a red-sensitive plate 30 minutes before the blue-light photo was made. This shows the permanent surface features of Mars. The large dark areas were mapped by the earliest visual observers and are well known.

The photo taken in red light shows the surface features because red light penetrates atmospheres (Earth's as well as Mars') while blue light is scattered by small particles in the atmosphere. Most of the blue component of the sunlight illuminating Mars is scattered in the atmosphere before reaching the surface.

The red component penetrates that atmosphere, reaches the surface and is reflected back through the atmosphere, showing the surface details. If thin clouds or haze are present they will be best shown by the plates taken in blue light.

The photo in red light appears in the January issue of National Geographic Magazine.

Shown in the picture of the moon is a flat region covered with many small craters. The large crater at lower right is Copernicus, one of the best known features of the moon.

None of the markings of Jupiter are permanent, indicating that they are atmospheric in character. They move in parallel to Jupiter's equator and every 14 months don't wish to squander the opportunity to let everybody else know what they think. Besides these tickets to the Playhouse that we get, are tickets to movies and concerts, and copies of books which we can get just for the promises of a review.

This term Fred Hoyte, the English cosmologist who has propounded a revolutionary new theory, is at Tech and the paper is going to have an interview with him. Interesting personalities continually pass through the Institute and many are here permanently and anyone could talk up to them for a conversation just by saying they are from the student newspaper.

A lot of people think that it would be fun working for a newspaper but feel that they couldn't even write the first word of the story. These people are usually in the minority. Many complain most when they read a badly written article.

**WHAT A STINKING PAPER**

(Continued from Page 2)

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Now and then it happens that an article written for the paper could be used for an English theme in the fresh or junior English courses and usually such articles can be handed in for credit if there is an arrangement made with the instructor and conversely, English themes can be handed in to the paper if they are suitable.

Besides all the need for writers of various sorts we also are looking for editors both present and potential. The Tech now has no real feature editor or copy chief and next month there is going to be an election at which a new editor is going to be chosen. These new editors should be sophisticated in the fact that actual journalistic experience is not really necessary since the necessary skills can be learned in just a few hours in the Tech office.

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You know, yourself, you smoke for enjoyment. And you get enjoyment only from the taste of a cigarette.

Luckies taste better-cleaner, fresher, smoother! Why? Luckies are made better to taste better. And, what's more, Luckies are made of fine tobacco. L.S./M.E.T.-Luckies Mean Fine Tobacco.

So, for the thing you want most in a cigarette...for better taste-for the cleaner, fresher, smoother taste of Luckies Strike...

Be Happy-GO LUCKY!

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**Where's your jingle?**

It's easier than you think to make $15 by writing a Lucky Strike jingle like those you see in this ad. Yes, we need jingles—and we pay $15 for every one we use! So send as many as you like to the name: Go-Lucky, P.O. Box 67, New York 40, N.Y.

---MODERATELY PRICED---

**WHAT A STINKING PAPER (Continued from Page 2)**

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There's no denying that it would be impossible for a small bookstore to carry in stock several copies of every scientific text. But certain books in every field are standard year-after-year best-sellers. These are (Continued on Page 8)

Publishers. In a week or two, I get my book at somewhat less than bookstore prices. Even better savings can be effected in the case of imported books by writing to an English bookseller (devaluation of the pound, don't you know).

Carslaw's Fourier Series and Integrals, one of the excellent Dover reprints of famous works, was sold out and not reordered for stock despite the evident popularity of this series. This latter failure to keep in stock books which are good sellers is a monumental example of shortsighted business practice.

Now I'll tell you what I do (after recovering). I go to my office, dig up the publisher's address, and order the book directly from him. While I'm at it, I also request the 15 per cent academic discount offered by most

The problem of today's gasoline do the work of three gallons of 1925 gasoline. On the average, how does the price of today's regular grade gasoline compare with the price of regular grade gasoline of 1925 (excluding state and federal gasoline taxes)?

Check one:

The same
15% greater
50% greater

In 1951 Union Oil made a total net profit of $27,266,971. Of this, $16,851,712 was plowed back into the business to meet the expanding needs of our customers. $11,444,269 was paid out in dividends to our shareholders. What did these dividend payments average per common shareowner?

Check one:

$285
$5,278
$10,560

How much investment in “tools” does it require to provide an average job at Union Oil Company?

Check one:

$755
$3,100
$70,920

In 1910, Union Oil did an annual volume of $12 million. This represented 23% of the total oil business in the West. Today we do an annual volume of over $275 million. What percentage of the total oil business in the West do we have today?

Check one:

31%
13%
23%

The same. The reason: Under our American profit and loss system, U. S. oil companies have the incentive to compete for your business. Because of this constant incentive they spend millions of dollars every year on research and development to put out the best possible gasoline at the lowest possible price.

2. $285 per shareowner. $11,444,269 is a lot of money but it was divided among the 40,093 shareowners. $285 per shareowner averages $11,444,269 over 40,093 shareowners.

3. $70,920. That's why in most industries today you have to pool the money of a lot of people under legal agreements known as corporations. Very few individuals could finance the “tools” required by heavy industry.

4. 13%. We do over 22 times our 1910 volume. But we have a smaller percentage of the total business—mainly because the oil industry is far more competitive. There are many more oil companies competing for the business today than in 1910.

Answers:

1. The same. The reason: Under our American profit and loss system, U. S. oil companies have the incentive to compete for your business. Because of this constant incentive they spend millions of dollars every year on research and development to put out the best possible gasoline at the lowest possible price.

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Guggenheim gives jet fellowships

The Guggenheim Foundation will grant a total of $36,000 for 1953 and 1954 to jet fellowship awards for graduate study in rocket and jet propulsion on the west coast of the United States and in Canada. The awards will be given to outstanding graduates in the fields of aeronautical engineering, chemistry, physics, and sciences of importance to jet propulsion. Each fellowship provides an yearly stipend of $3,000, with a half salary if the recipient is a graduate student and the university provides tuition. Since 1948, 37 Guggenheim Jet Propulsion Fellows have been appointed. Candidates for a fellowship must be residents of the United States and must have completed the academic requirements for the degree of Master or Doctor of Philosophy. They must have obtained their degrees before February 28, 1953. Selections will be announced in January 1953. Further information is available in the Guggenheim Foundation.

BUSINESS, PLEASURE

(Continued from Page 1)

staying... 

Every day a student from a foreign land was greeted by his fellow students in his native tongue. It, in itself, was a fascinating experience. But the fun and fellowship continued to grow.

The swap shops then started and fulfilled exactly what their name implied. Information was traded about possible developments, people and places, experiences, and plans for the future. Every day a student from a foreign land was greeted by his fellow students in his native tongue. It, in itself, was a fascinating experience. But the fun and fellowship continued to grow.

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BREWINS

(Continued from Page 2)

placed on Mr. Supplee’s default are considered almost as sure a sign of success as a 100% sell’s failure to make a 3.5 term.

We wish to commend the vigorous crusade currently being carried on in Ricketts against cheating. Ricketteers, it seems, are afraid of being caught.

Hughes cooperative plan for
draftsman

Hughes cooperative plan for
draftsman

The Hughes Cooperative Plan for Draftsmen is a three-year program to prepare part-time students for full-time work in draftsmanship at the Hughes Research and Development Laboratories. The plan will provide the draftsmen with opportunities for advanced training in such fields as electronics, hydraulics, and aeronautical engineering. The plan will grant a total of $36,000 for 1953 and 1954.

Purpose to Assist: The Hughes Cooperative Plan for Draftsmen was established to provide part-time students with opportunities for advanced training in such fields as electronics, hydraulics, and aeronautical engineering.

Eligibility: The plan is open to men and women who have completed at least one year of college and who are not enrolled in any other part-time program.

Salaries: A total of $3,000 will be paid to each student.

Funding: The plan is funded by the Hughes Aircraft Company.

Citizenship: The students must be citizens of the United States.

Program: The plan is a three-year program to prepare part-time students for full-time work in draftsmanship at the Hughes Research and Development Laboratories.

Further information is available in the Hughes Aircraft Company.

Address correspondence to:

HUGHES
RESEARCH AND DEVELOPMENT LABORATORIES

CALIFORNIA TECH

Page Seven

From brine to din

COMMITTEE PROJCECT

President L. A. DuBridge has appointed one of nine ad

visers to the Department of the Interior to formulate a

plan of action to develop the Nation’s atomic resources

in a national program to control the use of atomic energy.

Private research

This program calls for govern-

ment-industry cooperation, and the actual research will be

handled by private organizations on contracts with the Depart-

ment of the interior. The preliminary steps in getting work started on a five-

year, $2,000,000 job will be,

then members.

Other members of the adm-

visory committee include Robert E. Sproul, president of the Uni-

versity of California; J. C. Cro-

tin, vice-president of General

Motors Corp.; Louis Koenig, di-

rector of research at the South-

west Research Institute in San

Antonio, Texas; Henry J. Schacht, editor of the New York Times; and

the Aberdeen (S.D.) American.

George D. Humprey, president of the National Academy of Sciences; and

Sheppard P. Powell, chief executive of the Association of American Ad-

vanced Study Laboratories.

Moon, Mars, Jupiter

(Continued from Page 3)

lent features is the dark “red spot” shaped like an eye which was shown on drawings made about a century ago. It moves slowly as if floating in the atmosphere and has disappear- ed and reappeared a number of times since then. No ex-

planation for the spot has yet been established.

The small bright spot outside the red spot Jupiter is Ganymede, one of the four jovian satellites dis-

covered by Galileo and one of the 12 known today. Ganymede is larger than the planet Mer-

cury, and the bright spot in this photo was tak-

en on March 30, 1941. The moon—was it a

The “QUIET MAN”

Barry Fitzgerald

in Technicolor

John Ford’s Academy Award

The Newscast Committee, the Wor-

ship Committee, the Placement Office.

Further information is available in the


drums. At last, with the)

If you have to)

THE B据K DICK

Barry Fitzgerald

 Bancroft

“THE QUIET MAN”

Barry Fitzgerald

in Technicolor

John Ford’s Academy Award Winner

The Newscast Committee, the Wor-

ships Committee, the Placement Office.

Further information is available in the


drums. At last, with the)
GRAD CRIER
(Continued from Page 6)
the most frequently requested books, and by now the bookstore management should know their identity and keep them in stock. Oh, sweet mystery—
I also suggest that the bookstores keep in closer touch with the professors for advice concerning tests for courses and about books which the professors' graduate students will need. This latter advice would, I believe, be of special value. It seems to me that the only reason you pay to a retailer more for an item than the retailer himself paid is that you can take immediate possession of the object desired (or maybe it just isn't available any other way). At any rate, there seems to be little point in patronizing a store with such a meager line of essential merchandise when the manufacturer is willing to supply it for less. Anybody urgently need a copy of "Little Man on Campus?"

Health and Beauty

ARE YOU TOUGH ENOUGH FOR THIS JOB?

If you can make the grade, the U. S. Air Force will award you a commission, your wings and pay you over $5,000 a year!

CAN YOU "TAKE IT" 6 days a week? For 52 weeks? Can you meet the high standards required to be an Aviation Cadet? If you can—then here's a man-size opportunity! An opportunity to serve your country and build a personal career that will fit you for responsible positions both in military and commercial aviation.

It won't be easy! Training discipline for Aviation Cadets is rigid. You'll work hard, study hard, play hard—especially for the first few weeks. But when it's over, you'll be a pro—with a career ahead of you that you will take you as far as you want to go. You graduate as a 2nd Lieutenant in the Air Force, with pay of $5,300.00 a year. And this is only the beginning—your opportunities for advancement are unlimited.

ARE YOU ELIGIBLE?
To qualify as an Aviation Cadet, you must have completed at least two years of college. This is a minimum requirement—it's best if you stay in school and graduate in two years, unmarried, and in good physical condition.

New Aviation Cadet Training Classes Begin Every Few Weeks!

HERE'S WHAT TO DO:
1. Take a transcript of your college credits and a copy of your birth certificate to your nearest Air Force Base or Recruiting Station. Fill out the application they give you.
2. If application is accepted, the Air Force will arrange for you to take a physical examination.

Where to get more details: Visit your nearest Air Force Base or Air Force Recruiting Officer.

RADIO STARS
(Continued from Page 7)
by our entire solar system would merely be a pinpoint in it. The optical figure agrees closely with subsequent radio measurements at the Cavendish Laboratory and the University of Manchester, England.
Cygnus A—exciting
Perhaps the most exciting of the three sources is Cygnus A, located about 100 million light years distant from earth in the constellation of Cygnus, the Swan. This source coincides with an extragalactic nebula which is the brightest member of a great cluster of nebulae.
The structure of this spiral subject, says Dr. Baade, appears to make sense only if he assumes that he is dealing with two extragalactic nebulae in actual collision. Significant in the spectrum are lines traceable to neon V, a form of neon from whose atom four outer electrons have been stripped. This extremely strong line, or ionization, can occur only at very high energy atomic collisions in which the atoms involved are traveling at speeds greater than 1,000 km. per sec.

Hoyle confounds complex Cosmos
Prof. Fred Hoyle of Cambridge University, England, has arrived at Tech for a term as a visiting lecturer in astronomy after a much heralded approach. His book, The Nature of the Universe, has been a most controversial scientific publication ever since it was issued in 1951.
Creation of universe
Acknowledged as one of the world's outstanding cosmologists and theoretical physicists, he is also no novice at presenting astronomy to the layman. He has been expounding his theory that the universe is in a continuous state of creation and destruction, and this theory was the subject of his lecture at the University of Manchester, England.

Dr. Haagen-Smit still fighting smog
Although it is hardly noticeable, the battle against smog in the Los Angeles area is making very definite progress. In a talk entitled "Morley in the County," delivered by Dr. A. J. Haagen-Smit, professor of biochemistry at Tech, last month he reported on the positive steps taken so far in the foundries and showed how private industries contributed to the smog problem.

Fumes reduced 30%
Research is now being conducted in the fight against sulfur-dioxide fumes and hydrocarbons from industrial plants. These vapors have been reduced by a factor of 30% at the present time.

At the present, there are 200 foundries in the Los Angeles Metropolitan area which are melting all kinds of metals, as well as large steel mills like Columbia and Bethlehem-Pacific Steel. All except nine of these are now smog-proof and the remainder will be acceptable within six months.

Public in dark
The public doesn't know of the (Continued on Page 9)

U.S. AIR FORCE
Cagers test four-game streak in SCIC Road to Championship

Whittier Big Block in Road to Championship

The SCIC basketball race opens for Tech at the PCC gym Saturday when they face Whittier. This may be the most important game for the Shyman, both from the league standings viewpoint and from the psychological standpoint. The Poets are perhaps the most feared team in the conference, and if Tech can win the Beavers will be regarded as favorites to cop their first championship in seven years.

Tech takes on the press of the day. If Whittier wins, they will have a chance to stay in the hunt for the conference crown.

Record falls

Then La Verne fell before the rampaging drives of Anson and Tyler and Stevens. Not much of a fling has been seen so far Tech has been lying on the pivot shots of Anson and the drives of Tyler and Chambers. Shy has been able to call on only six players thus far and Shanks have been especially proficient under the boards, as two subs have averaged 7 points per game each.

New scoring record set

A new CIT scoring record was established the last week of last term as the red-hot Shyman poured 98 points through the hoop against La Verne’s 84. Winning their third in a row Tech was paced by Anson with 21. Also scoring in double figures were Chambers with 18, Tyler and Smith with 12. The halftime score was 51-44. Tech scored a total of 21 points as men came and went freckly.

Fresh hot

The freshmen continued on their mad rampage by beating La Verne 84-54 and Chapman 66-51. Comely, film again was high both, aesthetic average of 24 points in each. The first Tech onslaught of 21 points failed to snap the faint of the squad through ineligibility. So, with high hopes, they piled in for the home-try Friday night. The varsity will test their strength against Whittier at PCC on Saturday (8:15 pm).

DR. HAAGEN-SMITH

(Continued from Page 9)

The great advances that industry has made to control smog because Mr. Gordon Lanning, Director of the Air Pollution District, hasn’t told the public. He has been very quick about giving facts to industry and of the great work that is being done relative to smog control. Fact-finding committees are a good because they bring out definite information on smog for the public. All citizens should take an interest in smog and should sign petitions unifying them. They are signing.

According to his talk, Dr. Haagen-Smit showed two colored motion pictures of the Pasadena smog. The pictures were taken on two Sunday evenings, November 6 and 11. These photographs, on which several hours of film-time were spent, were portrayed in the two films. In one, home smoke incinerators do increase smoke in the early morning hours. The advent of wares of smoke from home smoke incinerators was graphically presented as such new wares were created.

The substitutes scored a total of 21 points as men came and went freely.

Frosh hot

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TIPS-N-TAILS (Continued from Page 9)

We were all eager to try out the famous runs where the World Ski Championships had been held in 1950. God blessed our first day with six inches of new powder to slip, slide and fall into. Unfortunately this snow soon wore off and ever-to-frequent rocks and dirt spots plagued our skiing. Even with this lack of snow, Aspen proved to be one of the finest ski resorts we have visited.

This weekend

How about going skiing this weekend? We have many fine resorts within 100 miles of Tech. This weekend how about going skiing this weekend. For information and transportation see me in Dabney House.

THE PLACE TO GO FOR BRANDS YOU KNOW

Voget and Cathey's Men's Store

459 E. Colorado, Pasadena

Buy CHESTERFIELD...Much Milder

COLUMBIA UNIV. '50

---And First to Present this Scientific Evidence on Effects of Smoking

A MEDICAL SPECIALIST is making regular bi-monthly examinations of a group of people from various walks of life. 45 percent of this group have smoked Chesterfield for an average of over ten years. After eight months, the medical specialist reports that he observed...

no adverse effects on the nose, throat and sinuses of the group from smoking Chesterfield.

CHESTERFIELD-FIRST and only premium quality cigarette available in both regular and king-size.

CONTAINS TOBACCO OF BETTER QUALITY AND HIGHER PRICE THAN ANY OTHER KING-SIZE CIGARETTE

---CHESTERFIELD---

---FIRST and only premium quality cigarette available in both regular and king-size.---

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