The man behind the trigger

UI prof invented the device that set off the atom bomb

By Jane Roskams of the Argonaut

August 6, 1945, 8:16 a.m.: A pinprick of purplish-red light expands to a glowing fireball hundreds of feet wide. The temperature at its core is 50 million degrees Celsius. At "ground zero," the Shima clinic, directly beneath the detonation of the first atomic bomb on inhabited territory, the temperature reaches several thousand degrees Celsius.

At a height of 29,200 feet, Larry Johnston was witnessing the first nuclear holocaust out of the port-hole of the B-29 in which he was traveling.

"I had come to terms that tens of thousands of people would be killed. As I looked down, I could see the fireball and the pressure wave just leaving a trail of dust and rubble behind it, but I wasn't thinking about that. "I think my major feeling was relief that the thing actually went off. I was fully prepared either for it to work or to fail, but I was surprised by the magnitude of it. One reason why I didn't feel any special emotion was because I was so exhausted. We'd been working around the clock for over a week trying to get it ready, and had already been on the flight 14 hours."

Lawrence H. Johnston doesn't witness atomic explosions these days. He currently teaches nuclear physics at the University of Idaho; but some 40 years ago, he was playing an integral role in the development of the first A-bombs.

Johnston was born in China in 1918, the son of two American missionaries. Five years later the family moved back to the United States. Johnston attended the University of California at Berkeley, where he studied nuclear physics under the direction of Luis Alvarez, the Nobel Prize Winner. It was through Alvarez that he became involved in the development of the A-bomb.

"I went to Los Alamos in April 1943 to work on the Manhattan Project. The lab had been in operation for about six months at that time. I was only 23, and it was quite an amazing experience to be working with a team of Nobel prize winners."

The team included worldwide acclaimed physicists Enrico Fermi, Hans Bethe and Ernest O. Lawrence. The project was directed by the controversial but brilliant J. Robert Oppenheimer.

There were other labs in the U.S. working on the A-
Program to aid faculty development

By Linda Lee
of the Argonaut

Students at the UI are not the only ones working towards a degree or searching for a career, so are some of the instructors.

According to Robert R. Furgason, vice president of academic affairs, the Faculty Development Program is designed to aid faculty members in broadening their current jobs with new opportunities for advancement. The program is also applied to “address the shifting needs of the University,” Furgason said.

“Doing good work, instructors need to assess their qualities in accordance with what they originally set out to do,” Furgason said. He added that this does not necessarily involve redesigning their sphere of study from one department to another, but quite often enhances those elements inside the course of instruction that he or she is partaking in.

The program is individually oriented. Often, the area of study a prospective individual chooses is based on a possible lack of professors in that field. But Furgason added that it “depends on circumstances” as to what the person wants in terms of goals and financial opportunities, for the chosen area “must absorb those needs.”

Actual classes can be taken here at the UI or elsewhere by working individually with another instructor to gain some “hands on” experience, according to Furgason. He added that it was a matter of personal preference as to how extensive the program should be, and that does not necessarily mean having to earn a degree.

Presently, the fields of computer science and engineering demand knowledgeable people to fill positions, and Furgason said that there has been one case where an instructor went from the school of music to computer science.

The program was hampered in the beginning by financial difficulties, but it is now in its second year and has three instructors taking part.

Furgason said that he hoped there would be more involvement in the future.
Former dropout finds his niche in research

By Laurel Darrow of the Argonaut

Not everyone gets to speak at a conference at the Smithsonian Institution in Washington, D.C., and when a high school dropout is not likely to have that opportunity, ever. But Jerry Ostermiller, a graduate student in anthropology at the University of Idaho, is an exception.

Ostermiller was invited to read his research paper, "Something Burns in Half Here: The Astronomical Orientation of a Mexican Village," to the first international ethnoastronomy conference on Sept. 7 at the Smithsonian. The paper was chosen from a large field of entries.

Ostermiller's paper was the result of research he did in a Mexican village with Thomas L. Grigsby, former associate professor of anthropology at the UI. In the paper, Ostermiller and Grigsby explain how the streets of the pre-conquest village of San Andres de LeCal were designed as an astronomical observatory. The streets form a religious and social calendar based upon the rising and setting of the sun on auspicious days.

Ostermiller quit high school and traveled along the Pacific coast for awhile, eventually enrolling in a community college electronics program. Working as an electronics technician, he realized his need for further education. Engineers that Ostermiller worked with seemed to have a much broader view of the world with their college degrees than he had.

"I had an inferiority complex about being a high school dropout," Ostermiller said. So he decided to give education another try, enrolling at Boise State University.

"My goal was - and still is - to get as much education as possible," he said. "I want to understand more about what makes people people."

While attending BSU, Ostermiller became interested in the social sciences and earned his bachelor's degree in social science. He took his diploma to work with him at the Idaho Historical Society, where he studied the history of the Oregon Trail. Part of his research involved walking the trail from Casper, Wyo., to Pendleton, Ore.

While his work was interesting, Ostermiller wanted to get his master's degree in anthropology. He chose the UI from many schools that accepted his application because it is one of the few universities with a program in historical archaeology.

Another reason he chose the UI was the price. Ostermiller has put himself through school by working part-time while taking classes. His education is important to him, he said, adding that while other people buy stereos or new cars with the money they earn, "I buy schooling."

After earning his master's here, he hopes to go to the University of California at Berkeley and get his doctorate in anthropology.

"He said that although he could make more money in electronics, he wants to pursue anthropology. 'You can either do what you want to do and find some way to keep yourself alive, or find a different line of employment that isn't as interesting,'" Ostermiller said.

Jerry Ostermiller

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Opinion

Students should fight tuition

There are a lot of signs that support is growing around Idaho for a change in the Constitution that would allow the state to charge college students tuition at the four state-run schools. Considering the impact that will have on their pocketbooks, students themselves should do their utmost to stem that tide; and a good time to start is this week.

Leading the way in the tuition proposals is the Idaho Association of Commerce and Industry's Task Force on Higher Education, which spent the better part of last week compiling testimony and information on the problems facing Idaho's higher education institutions. The task force is now in the process of holding hearings on its preliminary recommendations.

Among those recommendations are some sound ones—the establishment of admissions standards for the universities, the creation of a community college network, development of a clear role and mission statement at each school, and support for increases in faculty salaries. But then they blundered.

The panel recommended approval of in-state tuition for Idaho college students. The change was viewed as a way out of the financial straits the colleges are in now. Unfortunately, in the long run, the change will probably cause even more problems.

The original idea behind a tuition-free education was to give rural Idaho residents an even chance at a college diploma; that idea still holds as a reason to keep it that way. Idahoans are not notably wealthy. Many of them can only afford the small amount not charged at Idaho colleges; to add the burden of tuition would likely force many of them out for strictly economic reasons. Idaho education, then, would in essence fall into the hands of the elite who can afford it.

Moreover, college education doesn't benefit just the students. Those students become part of Idaho's thinking people; they, by benefit of their education, contribute to the increasce in the quality of life in Idaho. Studies on the state's quality of life have borne this out.

Yet, because of the IACI recommendation, there's more talk of shifting the increasing burden of higher education onto the backs of the students. Notably, that talk is coming from the halls of the Idaho Legislature.

Students must begin the fight now. Indeed, they can begin tonight. The IACI task force is holding one of its hearings in Moscow this evening. It's from 7 to 11 p.m. at the University Inn's Palouse Room.

If you're concerned about how the state's been digging into your pocketbook lately, you'll show up. And you might even let them know what you think of their plans for you.

Jennifer Seidemann-Fall

Young women looking like teenie boppers and young men seeming old, yet they have just begun to shave. And me, limping around campus on old knees feeling like I've stepped into another world. After 12 years, how do I stop being a mechanic and suddenly start becoming a student? As a mechanic, everything learned was cut and dried. Use this tool to fix that, use this part to replace that, nuts go with bolts, etc.

Now the learning is almost all conceptual. Nothing is as it seems; insanity could or could not be defined, two plus two may or may not equal four, passing or flunking a test may or may not be important to a final grade. Oh God, I feel like I'm going through culture shock. My mind is fogged in the masses of information being pumped to me three times a week, Mondays, Wednesdays, and Fridays. The material goes into my head, I understand it clearly, then it goes right out into space and I'm fogged in again. No retention at all. I can't seem to come out of the haze and concentrate on each class individually.

When will this end?

How can I cope with this new life? What will become of me if I don't live up to my own expectations? How do I go about measuring up? How do I remember all the information? How do I decipher what the instructor wants? Do others see the instructor in such a humorous light as I do? When will my mind clear away the fog and start retaining the very clear understanding of the material? Will my memory "click" in and begin to remember? Why does it seem I take twice, even thrice, as many notes as the other students? Do I hear things they don't? Perhaps I listen too closely. My test scores indicate I don't listen close enough. Why do I have such anxieties over tests? But on the other hand, I can't retain the material from one day to the next to even expect or hope for a "B." Must I settle with "C"s" for the next four years?

I must have real brains, somewhere. I just have to

Letters policy

The Argonaut will accept letters to the editor until noon on days prior to publication. They must be typed (double spaced), signed, and must include the name, address, phone number and student ID or driver's license number of the author. Letters will be edited for clarity and spelling. The Argonaut reserves the right to refuse letters that are libelous or in bad taste.
Letters

Watch out for editorialists

Editor:
It's been difficult, but I finally have to give in. I believe it my responsibility to respond, not to just one of Dave Newell's (sic) opinions, but the bulk of them. I have never in my life experienced an editor so lazy as to write opinion after opinion with little effort to research his subjects. After reading the editorials of Fri.

Mike Newell stated that faculty have had their salaries frozen. In fact, faculty have had salary increases in excess of the consumer price index, with some university deans increasing faculty salaries more than the CPI, which the editorials points out. Thus, the faculty have not been at a disadvantage, and the faculty in general have not received official salary freezes; faculty are in fact better off, relative to 1970. There are some university deans who have received virtually nothing at all, but the faculty in general have had their salaries frozen. It is the university administration that has not been able to afford pay raises for faculty, because the university administration has not been able to afford pay raises for all faculty. The faculty with the highest salaries have frozen them this year. The raises were worded "as many" so as to look as good as they did, but they are not necessarily real salary raises.

Second, even though the general raises are faculty raises, it is not true that the faculty raises are as large as the raises for the deans. The raises for the deans were larger because the administration has given them anything but special treatment to the deans. This pay raise movement is long overdue, and I hope to see the deans get raised. I hope that those raises will lead to better raised faculty. We are in this boat together, so we can not be drawing salaries in excess of the faculty salaries when faculty are for research and for other activities.

Mike Newell responds: Green apparently prefers to miniscribe and then attack on the basis of the misinterpretation. It is not a question of whether the phrases (admittedly ambiguous ones) in the editorial with which Green takes issue: "Offering a wary eye in that range to expand and push for faculty increases."

I have used this opinion as an example of a poorly researched opinion. I could take any opinion, David has written this year and point out inconsistencies and fallacies, to point in all this for unsuspecting readers, beware of poorly researched opinion and take it for face value. I would hope that, in the future, David at least makes an attempt to qualify his opinions with statements of fact. I tire of reading articles you would expect to find in the Enquirer.

Scott Green

David Newellackson Grain...for Christy Brinkley (contrary to popular belief, we would know exactly what to do with her).

B) Front-page coverage in the Arg on what nice, sensible, semi-respectable guys actually inhabit Whitman Hall (good press is so hard to get nowadays). This is in response to the total unprovoked entering of the Whitman Hall defensive perimeter.

C) Abject groveling by Mundt at our next half meeting (dirty knives required). If one of these options or our original ransom are not met, all I predict is pain (We love the smell of beer in the morning). Brian R. Thomas

Artiste de camp

Whitman Hall

Mom's Sneak a big success

Editor:
The men of Lambda Chi Alpha are proud to report that this year, as in every year, the House Mother's Sneak was a success and also a great night to sing and dance around the O'carpille. The proceeds from the charity drive will go to the North Idaho Children's Home which is located in Orofino.

We would like to thank the following sororities for their enthusiastic participation: Alpha Chi Omega, Alpha Gamma Delta, Alpha Phi, Delta Delta Delta, Delta Gamma, Kappa Alpha Theta, Kappa Kappa Gamma and Ina Preppa.

We regret that not all of the sororities deemed this event worthwhile enough to sacrifice an hour for fun and charity. We are happy to announce that the winners of this year's event is Kappa Kappa Gamma.

Timothy Austin

Options for Mac's release

Editor: As we seem to have reached an impasse in negotiations for the release of your beloved Macklin, Whitman Hall, in a spirit of compromise, offers the following options:

A) Hostage Exchange - Macklin for Christy Brinkley (contrary to popular belief, we would know exactly what to do with her).

B) Front-page coverage in the Arg on what nice, sensible, semi-respectable guys actually inhabit Whitman Hall (good press is so hard to get nowadays). This is in response to the total unprovoked entering of the Whitman Hall defensive perimeter.

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Timothy Austin

Bomb

Here's how the detonator works

In order for a nuclear explosion to occur, the material used must attain "critical mass." Any mass above this is unstable, and will produce a chain reaction leading to the explosion. Mass, in this instance, is in kilograms and takes gravity into consideration. There are two basic ways to attain critical mass. If the material is Uranium-235, then a "gun" technique is applied. Two concentric cylinders of U-235, each less than critical mass, are brought together by shooting one hemisphere at the other. The two halves then merge, forming a mass in excess of critical mass, thus initiating a chain reaction. A bomb of this kind was used on Hiroshima.

This technique cannot be applied to Plutonium-239, as it is more active and is constantly expelling reactive neutrons. If the "gun" method were attempted with Pu-239, it would initiate a minor explosion, long before the two halves were brought together and would be impossible to control. This is the problem of Pu-239, about the size of a softball and slightly smaller than a critical mass, is surrounded by a casing of highly explosive. Every single grain of explosive must be set off within one microsecond in order for a uniform "implosion" to occur. This would work to compress the Pu-239 to one-tenth of its original volume. This, in turn, brings about a change in the density of the Pu-239, bringing it above critical and initiating the chain reaction. The technique can also be used successfully with U-233. A plutonium bomb was used on Nagasaki.

For many months after developing the implosion method scientists had difficulty trying to produce a uniform implosion. It was Lawrence Johnston, working with Luis Alvarez, who finally devised the technique, and it is patented in his name.
KUID fundraiser nets over $11,000 in pledges

Cathy Rouyer, KUID's development director, said the drive began on Saturday, Sept. 10, when a football game between the University of Idaho Vandals and Southern Colorado. She said the $2,450 raised then turned out to be the record day for the eight-day drive. Rouyer said that about 125 renewed memberships were phoned in, bringing the total number of memberships to approximately 335. However, she said the final tally of both dollars and memberships could not be certain until today or Wednesday.

Rouyer said that private contributions make up 23 percent of the station's budget and because of federal and state budget cutbacks the station relies heavily on the private sector. She said that the government in the past has matched every $1 contribution with 40 cents, but now has reduced that amount to seven cents for every dollar.

KUID is trying to expand its coverage to include all north Idaho towns within the viewing area in an effort to make KUID "truly north Idaho's television station," according to Rouyer. She said that the station has received a lot of help from students and community living groups. She also said volunteers from communities within the KUID viewing area, which stretches from Grangeville to the Canadian border, came in to help out.

Three students to exhibit art

Three University of Idaho students will exhibit their artwork in the Vandah building on Friday, Sept. 19 through Tuesday, Sept. 30. Rebecca Bloom, a graduate student from Omaha, Neb., has some interesting experiments in ceramics which will be on display. Bloom, who coordinated a show for a visiting artist last year in the Vandah lounge, as well as other student exhibits, is also coordinating this show.

Doug Kinney, a UI graduate student, will have some of his oil pastels on display. Kinney has taught art at the college and elementary level and is known for his large drawings and paintings.

Annie Dvorak is currently studying oil painting under Mary Kirkwood and has done work using fibers. On exhibit she will have a collection of dolls.

The exhibit opening will be Thursday, at 8 p.m. Along with the artwork, ceramics, wall pieces and dolls, beverages will be offered at the opening.

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Idaho takes second, hosts tourney Thursday

After being away from home the past three weekends, the UI women's volleyball team returns home this weekend to host the second annual Northwest Classic in the UI Memorial Gym.

The Vandals are the defending champions in the classic, having defeated Washington State for the championship last year. This year, teams from Lewis and Clark State College, Whitworth, Washington State, Eastern Washington, Gonzaga, Spokane Falls Community College, and Idaho will be featured in the tourney.

The classic begins at 5 p.m. this Thursday when LCSC tangles with WSU. Idaho's first match will be Thursday at 6:30 p.m. against LCSC.

The weekend-long tourney concludes with the championship match on Saturday at 7:30 p.m. Admission is $3 for adults, $2 for non-UI students, and free for UI students with a valid ID.


Leading Idaho in kills for the four game tourney was Kelly Gibbons with 54. She was followed by Beth Johns with 43, Jenny Frazier with 42, and Lisa Tylor, sixteenth, 19.37.

Norris, whose Vandals dominated last year's opening meet, was not worried about Montana's impressive showing. "I just wanted to get a look at everybody, I saw some problems we have to work on," he said. "We got a good look at everyone on a tough course. We got a look at Montana, who is going to be tough to beat."

As for the men's team, ace runner Andy Harvey probably would like to forget the Pelleur meet. In two previous meets, Harvey had been wrong turns on the five mile course and did not finish on top after having been in the lead. On Saturday, it was not a false turn that subdued him but a push from behind between the 3,000 and 4,000 meter mark by an unidentified runner. Harvey was uncertain whether the push was intentional or not, but the result was a tumble and a loss of the lead position.

"I know I wasn't going to do anything on the hills, if I was going to make a move, it would have to be on the flat. I was tired on the hills. I don't know if it was from my bronchitis or not," she said.

And it was on flat terrain where Sharps was overtook teammate Sherry Crang. At approximately the 2,000 meter mark, Sharps passed Crang and never lost the lead. It was the second time she had won the race.

Crang, a junior from Vancouver, Wash., was nipped at the finish line by a Pacific Lutheran harrier, to prevent the Vandals having a 1-2 finish. The meet was non-scoring, so if it had not been, Idaho could have been defeated by an upset Montana, a Mountain West Athletic Conference foe. The Vandals were without the services of Pam Paudler for the meet, a loss which could have tipped the balance for a Montana win.

Paudler has been feeling discomfort in her hip area due to an injury she sustained last October that knocked her out of action for the remaining cross country and track season. But, as one of the Vandals' top runners, Paudler will run in the Fort Casey Invitational on Oct. 1, according to head coach Roger Norris.

Other Vandals finishers were: Crang, third place, 16:14; Lisa Frazier, tenth place, 19:18; Cindy Crow, fourteenth, 19:32; and Julie Holanger with 33. Frazier also led the team with 11 blocks and 20 block assists. For their efforts, Gibbons and Frazier were named to the all-tournament team. Also, Frazier broke the UI school record in solo stuff with six against Washington.

The Vandals now stand 10-5 overall this season.
Evans wins, misses three

The second winner of the Tri-State/Argonaut Pick the Winners Contest is Jay Evans of 1025 W. A St, in Moscow. Evans was the only entrant to miss three games as he picked 11 out of the 14 games correctly.

Four games were thrown out of the contest due to either typographical errors or ties. Both Stanford at Illinois games were tossed out, while the Georgia at Clemson and Arizona State at UCLA games were eliminated because of ties scores.

The games most often missed were Tulane's upset of Florida State, San Diego State's loss to Utah and Michigan State's victory at Notre Dame. The Alabama-Mississippi game was most often picked correctly.

The Tri-State/Argonaut Pick the Winners Contest runs for nine more weeks.
By Frank Hill of the Argonaut

When the University of Idaho Vandals take to Bozeman to play the Montana State Bobcats, most people in attendance expected to see an entertaining game. And why not? Last Saturday's match up pitted two of the best running quarterbacks in the Big Sky Conference: Idaho's Ken Hobart and MSU's Mike Godfrey.

But instead of a high-scoring barn-burner, MSU fans were mislerted to a new dimension of Air Express, namely a staunch Vandals defense that recorded its first shutout in two seasons: Idaho 23, Montana State 0. "I'm extremely happy about our defensive effort," UI head football coach Dennis Erickson said. "It's great to finally see some turnovers," Erickson said.

While the Vandals defense was rising to the occasion, the Idaho offense seemed determined to imitate its performance of a week ago against the University of Southern Colorado; the Vandals couldn't get untracked enough to score until the second quarter. The first score of the game by either team came two minutes into the second period when Hobart found tight end Kurt Vestman with a 12-yard touchdown pass. Tim McMonigle's kick made the score 7-0.

That looked to be all the points either side would score in the first half until MSU was forced to punt deep in its own territory. A high snap from center allowed the UI defense to rack up two points when MSU long snapper Bryan Mark Tidd buried Bobcat punter Dirk Nelson in the end zone for a safety. The halftime score was 9-0, but Erickson was pleased with the effort.

"I'm concerned about our play in the first half," Erickson said. "We can't continue to play like that and win very many more games, he added. Indeed, Hobart's passing statistics for the first half of play were nine completions in 29 attempts with two interceptions. Erickson admitted that the poor weather conditions were the primary cause Vandals receivers dropped six passes in the first half.

The entire game was played under ominous skies and at halftime a sticky mist was falling from the heavens. By the end of the game, the mist had turned to rain and the playing conditions had deteriorated considerably.

"Psychologically, we've had trouble playing on grass over the years, but to win in those play-

ed conditions was just great," Erickson said.

As the weather became more severe, the Vandals offense began to produce. Where Hobart had a miserable first half, he again turned it around in the second half, completing 13 of 15 passes, two for touchdowns.

In the third quarter, wide receiver Ron Whitmore hauled down a 66-yard touchdown bomb from Hobart. And in the fourth quarter tailback Andrew Smith tacked six points when Hobart spotted him in the end zone for a two-yard touchdown pitch. Tim McMonigle stayed perfect this season on PATS, adding the extra points after each score and running his consecutive streak to 45 over two seasons.

Intramural Corner

Golf (men) — Entries are due today in the IM Office. It is a one day tournament scheduled for Saturday, Sept. 24 at the ASUI golf course. You may enter as many as five men on your team.

Racquetball Singles (women) — Entries are due today in the IM Office. All matches will be played in the ASUI Kibble Dome on Monday-Thursday evenings.

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distance of the target. Should that fail, a barometric device was fitted, primed to detonate at 1,500 feet. Finally, there was a contact trigger in case the bomb hit the ground without exploding. After their work on the development of the detonator, Johnston and Alvarez formed a team and were employed to go on each mission and register the effect of the blast.

The first test of the bomb took place at Alamogordo, N.M. early in 1943; both men were present to test their apparatus, flying above the blast in a B-29. "When we sent the first bomb over to Japan we all wrote messages on the side of it," said Johnston becoming emotional when remembering back to those times. "It was such a big thing for us."

That bomb, dropped on Hiroshima, was devastating: It caused between 151,900-165,900 casualties (including most of the American POWs in the city); 62,000 out of a total of 90,000 buildings were completely destroyed, all the utilities and transportation services were wrecked; and over 70,000 breaches occurred in the water mains, crippling the firefighting capability of the city.

The destruction caused by the bomb did not stop there, and Johnston said physicists were aware of its additional problems. "We knew about the burns, the fallout problem, and the possibility of radiation sickness because of our experiences with X-rays and cancer. However, I think we did underestimate the possible genetic side-effects. We Americans tend to oscillate from one extreme to another. These days people overestimate the effects of radiation, and this could be because of an awareness from that time."

Three days after Hiroshima, the United States dropped a second atomic weapon on Japan; this time the ultimate target was Nagasaki — but Johnston said it had not been the original target.

"On the Nagasaki flight, there was a mix-up with the planes meeting each other," he said. On the Hiroshima flight there had been three planes, one for the bomb, one for the scientists and their equipment and one for official photographers. On the Nagasaki flight, there were only two. "They hadn't originally intended to bomb Nagasaki. The original target was a nearby naval base. However, because of the delay of a couple of hours before going in — because of the bad weather and poor visibility, they were low on fuel; they decided to go Nagasaki instead. They didn't have enough gas to get back again if they'd gone to the naval base."

This time the death toll was 39,000.

Johnston admits that today his own thinking is shaped by a number of tasks he gave immediately after the war. Being the only person to have seen all three bombs — the test bomb, the Hiroshima bomb and the Nagasaki bomb — go off during World War II, he was in great demand as a speaker at church meetings and women's groups, and was invited to speak at the Commonwealth Club in San Francisco. By that time it had become obvious that the bomb was a world concern.

He said that since then concern has grown geometrically, to the point that there is now an active worldwide anti-nuclear movement working against the bomb's deployment. Johnston said his thinking has changed somewhat, but most of his basic ideas remain the same as when he was talking to church groups.

"Nuclear warfare has now completely dominated people's thinking, perhaps more than it should," he said. His opinion is that the stockpiling of nuclear weaponry by some of the major powers is overshoot when you take into consideration the amount of money spent on it.

"Modernizing the weaponry is necessary, and that is one reason why they should continue to produce them," he said. "Often the result of a military test or whatever will turn out to be the opposite of what we think. Then we must ask ourselves whether this is stabilizing or destabilizing."

"If we have a nuclear weapon which is 10 years old, can we be sure it will work if you're not sure something will work, then it can make you somewhat trigger-happy, so you think, 'We have three times as many just to make sure."

Johnston describes it as "sheer madness" to spend more than any appreciable fraction of our money on anything above local police forces and peacekeeping issues that are closer to home.

He believes that it will take strong provocation indeed to spark a nuclear war between America and the Soviet Union, but he is worried about the possibility of such a war beginning inadvertently.

Johnston, however, believes that manipulation of science for purposes of war is inevitable, though not really justifiable. "When your back is against the wall, and your existence is being threatened, you really will use the weapon," he said. "If we're going to have scientific weapons, then nuclear weapons may not be the worst of these."

And is there an answer to the nuclear arms problem?

"The only way I see an answer to the nuclear arms problem is that we must show that we will not use them unless our survival is threatened,

"If, because of man's sin, the whole place is wiped out, then I know I'm being obedient of what the Lord wants me to do, and what better can I do?"
WSU registers 16,000 students

Washington State University registered approximately 16,000 students at its mass registration Thursday and Friday. This unofficial total is down about 350 from the fall of 1982, but is running at the projected level and may go higher, according to admissions director Stan Berry.

Freshmen enrollment is down by 200 students over last fall, but graduate student enrollment will be up by about 150 over last fall, according to Berry.

Classes began at WSU Monday. Starting next year WSU's registration will coincide with fall registration at the University of Idaho.

The Community Free University, the Palouse area's unconventional educational alternative, will start its 37th semester Thursday, when registration is held from noon to 1:30 p.m. at the Neill Public Library in Pullman.

The all-.volunteer school, which has classes beginning Saturday, is described in its literature as an "anarchist, non-institution," and offers courses not found in the curricula of more conventional colleges, such as Anarchism for Beginners, Basic Winetasting, Faith and Life, Massage for Lovers, Nuclear Arms and Christian Conscience, Self-Subsistence, Soapmaking and Yoga for Daily Life.

Other, more conventional studies include courses on various types of cooking, computers, bicycle touring and maintenance, art and outdoor sports and plant life.

CFU instructor Charlie Brown said although each course requires a $2 fee and some require additional materials fees, the university is free in its methods of instruction and learning with its less-formalized structure.

The university emphasizes that each instructor is "soley responsible for content, quality and safety of his or her class," and that any liability extends no further than the $2 registration fee.

CFU also offers anyone with the "knowledge and enthusiasm to share" the opportunity to volunteer to be an instructor, regardless of age or training.

Training for volunteer staff for NIGHTLINE/Crisis Line will begin Sat. Sept. 24
For information, call: 882-0220 or 332-1505
for information UI or WSU credit available

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University of Idaho

Tickets Available Now at:
U of I Sub Information desk
Process, Inc. (WSU CUB)
Budget Tapes & Records - Moscow, Pullman, Lewiston
Tuesday, Sept. 20
8 a.m.-5 p.m. Safety Seminar, SUB-Cataldo Room.
9:30 a.m.-9:30 a.m. Facilities Use Committee, SUB-Ee-da-ho Room.
12:30 p.m.-2:30 p.m. UIRA, SUB-Silver Room.
11:30 a.m.-12:30 p.m. Christian Series, SUB-Ee-da-ho Room.
noon-2 p.m. Credit Union, SUB-Pend O'Reille Room.
12:30 p.m. Dilemma of Women in Literature with Barbara Meldrum, Women's Center.
3:30 p.m.-5:30 p.m. C.A.D., SUB-Ee-da-ho Room.
4 p.m. "Ways To Teach the Bible," Campus Christian Center.
4 p.m.-5 p.m. Chemical Engineering, SUB-Appaloosa Room.
4:30 p.m.-5:30 p.m. Computer Science 4, SUB-Pow Wow Room.
5:30 p.m.-8 p.m. Greek Class, SUB-Pend O'Reille Room.
6 p.m.-8:15 p.m. Delta Chi, SUB-Cataldo Room.
6:30 p.m.-8:30 p.m. Kappa Kappa Gamma, SUB-Appaloosa Room.

Thursday, Sept. 22
8 a.m.-9 a.m. Moscow Realty, SUB-Ee-da-ho Room.
9 a.m.-10 a.m. Campus Crusade, SUB-Pend O'Reille Room.
11:30 a.m.-12:30 p.m. Christian Series, SUB-Ee-da-ho Room.
12:15 p.m.-2 p.m. Women in Math, SUB-Silver Room.
2:30 p.m.-4:30 p.m. Mt. View Ministries, SUB-Pend O'Reille Room.
3:30 p.m.-4:30 p.m. ASU Ways and Means Committee, SUB-Ee-da-ho Room.
6:30 p.m. 10 p.m. ASU Senate, SUB-Spalding Room.
6:30 p.m.-8:30 p.m. Kappa Kappa Gamma, SUB-Appaloosa Room.
7 p.m.-10 p.m. ASU Senate Meeting, SUB-Chief's Room.