SPECTRUM

October 5, 1982/Volume 98, Issue 7, Fargo, North Dakota Man

HIS ISSUE: ne's second section formational and opis on the threat of ar and build-up of

Jesday

Opinion By Admiral Noel Gayler emperate and threatening seen the superpowers. It atmosphere that is very

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y short-range and mediums o that their targets are ange. If you pull them back, e hair-trigger effect of havront in a time of crisis when

fired on instant notice. portant, massively reduce weapons stockpiles. The nat could be wreaked would nous, but it wouldn't be as ore. The most significant be the change in political atn you imagine the 300 or so respondents and God knows er people who would attend pons turn-in with the hamde, and stars and stripes em? What a change in att would make.



Investments are not out of the question for many college students in F-M area

By Kevin Cassella

For most students, the financial section of the newspaper is something to line the birdcage with. Or to paper train that new puppy. On the other hand, for some students it provides information about how well their various investments are faring.

Actually, not many college students can afford to play the stock market. Normally, students use all their available money to complete their education, said Joyce Rude of Dakota National Bank.

Perhaps the most common form of investment is the passbook savings account. The accounts earn 5.25 percent annually. Credit unions and savings and loans pay a slightly higher rate.

But for those with larger sums of money, other forms of investments are possible.

"Naturally, anything that's not insured is a bit riskier, but the return is quite a bit higher," said Dan Lilja, stockbroker for Merrill, Lynch, Pierce, Fenner and Smith, Inc. in Fargo.

The company has what it calls the sharebuilder plan. It's a convenient way to purchase stocks or precious metals for those who don't have large amounts of money, he said.

Investors may purchase stocks for \$25 and after an initial \$100 investment, \$50 for silver and gold.

Under this plan, "you invest by the dollar amount and not by the share or ounce," according to the company's literature. For example, \$25 may purchase 2.8 shares in Company X, -but only three-fourths shares in Company Y.

Another advantage is investors Student senate winners to start new school year

By Rick Olson Here's a rundown of the winners in the student senate election.

Vote totals and names of those who were defeated were unavailable at press time.

In the race for **Reed-Johnson** senator, Rodger Christenson was victorious.

For the High Rises, Darrell Veldhouse won a seat on the senate. In the race over at Stockbridge-

Churchill, Joseph DeWalt came out the winner.

Graverites voted in Dan Ackmann as their student senator.

Over in married student's housing, Mark T. Harris was elected.

For off-campus senator, Leslie La-Fountain, Roger Skraba, Dennis

Presser, Paul Leier and Philip Landis were the top vote-getters in a field of eight candidates.

And for Campus Attractions, the winner was Scott Ward. pay lower brokerage rates. "Sharbuilder offers you discounts of up to 40 percent off regular Merrill Lynch commission rates on transactions under \$5,000."

There is one disadvantage to the plan. Transactions take a day to complete, Lilja said.

Investment clubs are another way to become involved in the stock market.

A group of teachers at Benjamin Franklin Junior High School in Fargo did just that. Each month the eight teachers pay \$400. The stocks are bought in 100-share lots.

"If you can do that, you can get reduced brokerage rates," Lilja said.

Investment opportunities need not stop with stocks.

"Mutual funds, in my estimation, should be a very good investment,"

said Clifford Stadum, branch manager of Piper Jaffray and Hopwood Incorporated.

Mutual funds provide another way of putting a group of small investors together. The funds are controlled by a professional management team and are invested to return high yields.

If a person invested about \$1,400 in a certain mutual fund in December 1980, that amount would grow to about \$3,500 10 years latera 250-percent increase.

Lilja describes annuities as part life insurance and part investment. One plan pays 13.5 percent on an investment of \$500 to \$1,000 minimum.

The earnings are tax deferred but always taxable—and you're closing the door on growth, Stadum said.

Invest To Page 2

Soccer Club is still on probation after the misuse of student fees

By Rick Olson Internal problems and the alleged misuse of allocated student activity fees were the two chief causes the SU Soccer Club was-placed on probation last spring.

"They had a rather vague constitution and bylaws," said Kathy Kilgore, SU director of student organizations, development and activities.

According to Kilgore, the soccer club is still on probation until it can pay back the amount owed to student government and prove "they can function cohesively as a group."

The soccer club presently owes student government the sum of \$105.12.

"The club had internal problems

By Rick Olson last spring within the leadership and the alleged structure of the organization," tudent activity Kilgore said. Also, many of its ief causes the members had questions on what was placed on pro-

Club adviser Dr. Allan Ashworth, professor of geology, has taken a more personal involvement with the club, according to Kilgore.

"The club had difficulties of being an organization and a sport at the same time," Kilgore said.

She said the club has written a new constitution to spell things out in detail.

At present, the soccer club is raising money to pay back what is owed the student government and for operating funds to run the club this year.



With Sunday's 70s temperatures, Bob Gustafson(left) and Lynn Fricke, in foreground, and Jeffev Arzque (left) and Fasil Tegene, background, relaxed on the library's front lawn.

Measure 6 vote issue goes to the polls on Nov. 2; many voters are expected

By Darrel Veldhouse

Gambling in North Dakota-to be or not to be? That is the question voters will have to answer November 2.

If they listen to Dennis Falk, gambling will continue. Falk, the president and general manger of Prairie Public Television and a member of the Steering Committee for Control of Gambling, spoke at a Brown Bag seminar last Wednesday.

Prior to 1976, all gaming was illegal in North Dakota. In 1976, a constitutional amendment to allow charitable gambling such as pull tabs in fraternal organizations was passed.

In 1979, the North Dakota State Legislature decided to allow charitable organizations outside of fraternal organizations to conduct gaming. Then in 1981, blackjack was legalized with a \$2 limit.

Falk said since July, gaming has provided \$11 million for. parks, public broadcasting, youth organizations and other charitable causes. He also feels the state legislature acted responsibly in passing the gaming laws.

He said, "You have an enormous amount of social good arising in North Dakota."

Some good he cited was the fact 3,000 to 4,000 people were employed by gaming. If those people lost their jobs, it could cost the state \$20 to 25



million. He also said gaming was taking the place of federal cutbacks in charity.

Falk stated Priairie Public TV would exist if gaming was stopped, but in a substantially different form.

Charities could work without gaming, he said, but only at the bare survival of before gaming and so would not be able to provide services as well as they do now.

Despite the good that gaming does, Falk did admit there are some problems. But he added the control was good.

"It's a large new industry and it's grown in a real hurry. I think the level of control is exemplary for something that's grown that quickly," Falk said.

are close, with the anti-gaming position holding a slight lead. He also said even if the measure passes, the private gambling would likely continue without charities receiving any benefits.

The gaming law has done much to help the state's economy by providing jobs and bringing in tourists from Canada and other states, Falk explained.

He said, "I think it's a good law for the state.'

Invest From Page 1

With the current prob the social security system said students may want the possibilities of an retirement account.

IRAs offer immediate and also provide for a ref come. Single persons may up to \$2,000 annually about 12-percent interest from the account are tax

For a person in the bracket, a \$2,000 to realizes a \$400 tax saving ding to information pr Rude.

A major drawback is can't be withdrawn until reaches 60 years of agewilling to take a sizabl penalty.

Before making long vestments, be forewarned vestments are taken into tion when determing fine under the equation used by cial aids office.

Also, the use of financial for investment making is i SU financial aid office Tesmer.



Falk said the polls on Measure 6 Rush week was a letdown for SU sororities, but fraternities did well

Rush week for Greek societies had a relatively high turnout for fraternities, but a low attendance rate for sororities.

Rush counselor, Sonja Jargenson said, "The turnout for the sororities was somewhat of a letdown, especially since the sorority girls put a lot of work into rush activities, including picnics and skits. As an overall average, about 5 to 6 girls pledged into each house on campus."

Jargenson felt poor advertising and the early scheduling of rush could have been the cause of low attendance during rush.

Delora Kautzmann of Gamma Phi Beta felt the major reason why turnout was so low was because people are not well informed about the Greek system.

Fifty-four girls signed up for rush and only 23 actually went inrough. For those who did go through, their drink," said Brenden, "and the nonknowledge of the Greek system was obtained through older brothers and Tuesday and Thursday eliminated sisters who were already members the pressure of having to drink."

2~

By Roxanne Okken of Greek societies or from their parents who are now alumni.

> Because of the low turnout, some sororities are already planning another formal rush sometime in the near future.

> Kerry Johansen of Sigma Chi was pleased with turnout for the fraternities. With activities ranging from Playboy Party Night to Around the World and Roaring 20's night, Johansen estimated that about 80 guys went through with 40 who were really interested and 17 who pledged.

> SAE also experienced a high turnout with an estimated 90 guys going through rush and 16 pledging.

> A new idea which was incorporated into the frat activities this year was non-alcoholic days. Greg Brenden of Alpha Gamma Rho felt that the idea was excellent and it. went over pretty well.

> Some guys just don't care to alcoholic days which occurred on

DRYCLEANING Just off campus behind Gamma Phi Beta 1135 17th St. N. 10% cash & carry discount off our already low prices

AGICAL A MAGICAL AND INSPIRATIONAL EXPERIENCE AS WITNESSED IN 73 COUNTRIES BY OVER 70 MILLION PEOPLE

Spectrum/Tuesday

EXPERIENCE THE IMPOSSIBLE

Wed. Oct.6, 7:30p.m. **Fargo Civic Center** Tickets: \$4 at all Christian Bookstores \$5 at the door *and available in the Union

Sponsored by Campus Crusade for Christ.

students' parents encouraged to visit campus

By Tammy Rowan Lodging Secount cards are being ared to lure parents of area col-

to students to the F-M area. The cards can be used at all parpating hotels in the two cities. The F-M convention and Visitors printed 18,000 cards, reau has approximate number of students the three colleges, that are being ributed at SU, MSU and Concor-

SU sinclents can pick up their card the notivity desk in the Memorial tion. One pard, which is good until optember 1983, will be available to

Each card needs the student's nature and the name of the col-re attended before the parents can l before the parents can card must also be ented when receiving the room and not when paying in order to hen receiving the room

it.

oni Norby, assistant director of

F-M convention and Visitors

Bureau, said the bureau decided to provide this service at its monthly sales meeting with the managers of all the motels in the area.

In the long run she hopes some goodwill can develop between the students and the convention center.

'We don't feel there is enough emphasis placed on students and on

their effect on tourism." Norby said. The student population in the F-M area adds to the entertainment options of the area with the many college sports, plays and concerts. Many businesses are also kept alive in the community by the student population.

The convention center wants to encourage parents to become involved in the F-M community. With the lodging discounts, the center is trying to let them know Fargo and Moorhead are interested in having them visit.

Norby feels it is better for the students to stay here instead of going home every weekend. With parents encouraged to visit their

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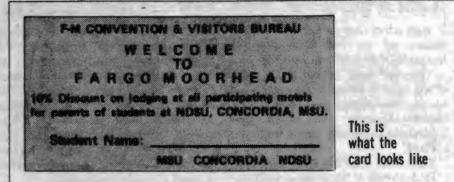
> - T-shirts - Jerseys - Jackets

- Caps
- Uniforms

QUICK SERVICES* GOOD PRICES







sons and daughters, students will spend more time at school.

The convention center works to bring tourism to the area. Work to bring in tourism is done mostly in the North Dakota and Minnesota regions.

Once the tourists are brought to the town, the center works to show them hospitality. Information on dining, and hotels, maps and tour guides are povided to jourists.

'SU makes good use of the center with its many conventions," Norby said

convention can be made through the convention center. The services are done at no cost to the convention committees.

Students can also make use of the center by calling any weekday. Questions on city bus routes, museum hours, where to find help with a project and what's happening in the city can be answered by the center.

"We are trying to get students interested in community happenings and providing them with this parent discount is a way to let them know All arrangements for any type of we are here," Norby said.

Messages of many kinds can be heard on SU's T.A.P.E. service

By Jean Wirtz

Let your fingers do the dialing to the T.A.P.E. program. Information ranging from herpes to pet care is available with the touch of the dial. T.A.P.E. is an acronym for **Telephone Access Program Ex**change. It consists of a collection of recorded messages ranging from

two to four minutes in length. T.A.P.E. became a reality to SU in May 1977 through the efforts of a task force implemented by the Student Affairs Division.

"There is a need for it on campus," Marjorie Olson, operations director and information services coordinator at Memorial Union, said.

Over 700 recorded cassette tapes are available containing "any subject students have an interest in," Olson said.

Health care tapes are most widely requested. Olson said a major reason for this is that the program provides anonymity. Anonymity may

be desired by students when covering such subjects as veneral disease or contraceptives.

A contact person is given at the end of each tape for those students who require additional information.

A script guideline is used when making the tapes. The contact is usually an expert on campus.

The experts provide reliable information on tapes, Olson said.

T.A.P.E. was budgeted \$11,000 this year. The majority of the money goes toward payment of T.A.P.E. employees who are primarily workstudy students.

With the use of advertising in campus publications, T.A.P.E. receives an average of 150 to 200 calls. After the effects of advertising have waned, a consistent 40 calls per day are received.

"T.A.P.E. is an inexpensive way to get information to the students without the use of paper," Olson said.

3

The number is 237-TAPE.

Continuing its year-long dedicatory celebration, North Dakota State University Festival Concert Hall presents

PETER NERO IN CONCERT

An evening of dazzling piano artistry featuring jazz, contemporary and classical music.

TUES - 2 for 1, 8:30-10:30

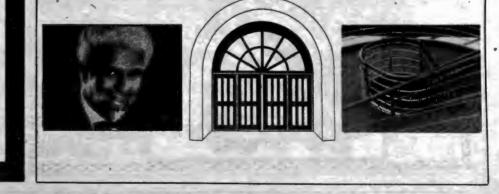
WED - 50¢ DRINKS, 7:00-10:00

THUR - THIRSTY THURSDAY (\$1.25 PITCHERS 6:00-10:00)

FRI - FRIDAY AFTERNOON CLUB (\$1.25 PITCHERS 3:00-6:00; open at 2:00) \$5.00 PITCHERS of MIXED DRINKS

Tuesday, October 19, 1982, 8:15 p.m.

Write NDSU Memorial Union Ticket Office, P.O. Box 5476, NDSU 58105, or call (701) 237-8458. Reserved seating, \$10, \$9, \$8. Wheelchair locations. Tickets also available at Straus downtown and West Acres.



EDITORIAL

And when God said. "Let there be money so we can eliminate the barter system," SU was there.

You can't help but get this picture of life on our campus. At every turn someone is asking you to reopen your rapidly-thinning pocketbook and contribute in greater amounts to the coffers.

This time, it's Fine Arts Series.

Once upon a time as a youthful freshman, I was given a booklet of tickets to attend Fine Arts Series attractions if desired.

Were the tickets free? No, the money came from part of the student activity fee paid by us all.

That was OK and to be expected. It was nice to have the chance to attend the fine cultural fare yearly presented in the series.

Free tickets were given out all the years I remember until now.

A quick check of the finance commission budget list shows Fine Arts Series was granted \$19,967 in student funds last year, a year in which "free" tickets were given to students who paid activity fees.

This school year, Fine Arts Series officials requested \$29,170 and eventually received \$24,794, an increase over the previous year.

and what we're doing right.

paper.

Yet, even with this nearly \$5,000

SPECTRUM:

Yes, we're still waiting for that first letter from you outlining your

comments about "The Spectrum." Tell us what we're doing wrong

Also, as with other letters for publication, letters to the editor are due

5 p.m. Tuesday for Friday's paper and 5 p.m. Friday for Tuesday's

increase in consumption of student funds, this happens to be the year students must purchase tickets in order to attend Fine Arts functions.

It has been said by some that the reason students are now required to purchase tickets to attend is the quality level of acts booked for this year's series is much higher than in past years so more money is needed to fund the improved series.

Rather than pick apart and compare this year's acts to last year's as this year's look rather interesting, let's simply assume this year's bunch is bigger and better than ever before.

Do students really want this kind of thing? Sure, Fine Arts Series is an important part in rounding out the collegiate experience as a little culture never hurt any farmer.

But to lose that lure of "free" tickets, even though we actually paid for them with student fees, is unforgivable.

I predict attendance at this year's Fine Arts Series will be far below anticipated and we'll know why, too.

It's simply not nice to take more of our activity fee money with one hand, then hold out the other at the box office.

Dave Haakenson



NO ONE GUESSES CORRECTLY.

The red-colored wine pouring from this bottle as pictured las is the peculiar item we wanted you to notice. As the both clearly indicates, this should be a rhine wine which is white not red. While one entry suggested we were simply testing ou to and the appeal of creating color photos, it looks like no on the "Spectrum" no-prize this time around.

LETTERS

I was shocked to see in the Oct. 1 issue of "The Spectrum" two campaign advertisements sponsored by the SU College Democrats which are a misrepresentation of the facts.

Both of these ads, on Pages 8 and 11, state that the two democrat candidates for the N.D. House of Representatives presently have the title of "representative."

Neither of these gentlemen are deserving of this title prior to being duly elected by the voters.

If College Democrats play hard ball in the big! had better clean up its ad open itself up to legal action

SPECTRU

The Spectrum is a student-run newspaper published Tuesdays Fridays at Fargo, N.D., during year except holidays, vacations examination periods.

Opinions expressed are not net those of university administration or student body.

The Spectrum welcomes letters editor. Those intended for public must be typewritten, double-spat no longer than two pages. We may right to edit all letters.

Letters must be signed. Unsign will not be published under any circumstances. With your letter. include your SU affiliation and all number at which you can be read

Spectrum editorial and business are located on the second floor, s side of the Memorial Union. The office number is 237-8929. The et be reached at 237-8629; editorial 237-7414; business manager, 237 and advertising manager, 237-74

The Spectrum is printed by Soul Printing, Casselton, N.D.

Design editor.....Beth



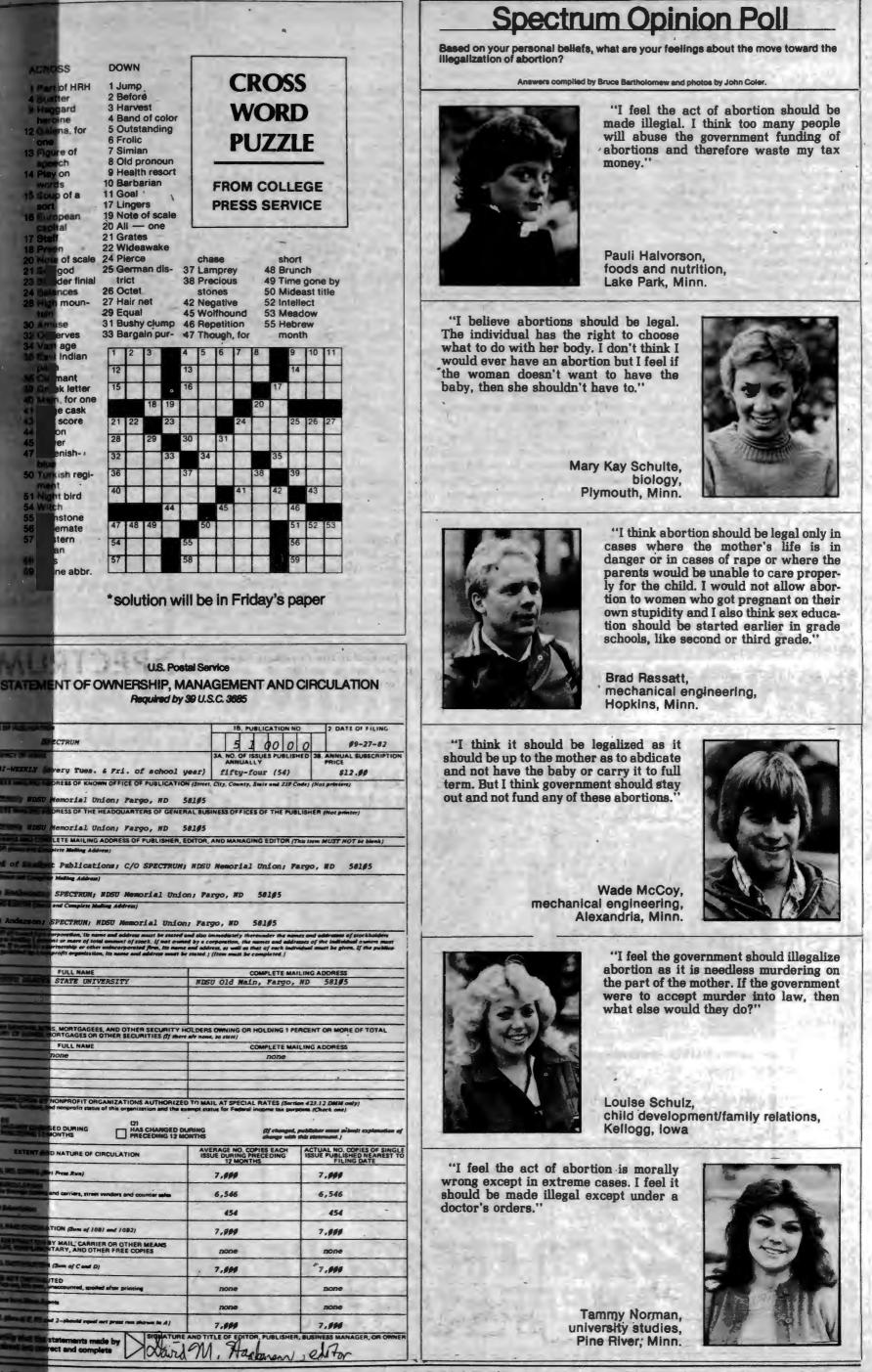


OMB2 DAVIDU DAKY NO



Spectrum/Tuseday,

Bot



Oct. 5, 1982

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As an intern during 1981 N.D. Legislative Session, I had the unique opportunity to watch at first hand my representative, Tom Matchie.

I was proud of the way Matchie worked hard and devoted many hours on issues concerning the student and faculty of SU.

Throughout the session many SU students came to observe the political process.

Tom always took time to meet with them and often had students sit with him while crucial debates and votes were in process.

He was concerned that they understood the legislation which affected students attending SU and citizens of North Dakota.

On Nov. 2 students and faculty living in District 45 will have the opportunity to vote for Matchie.

I strongly urge you to support this man because he truly represents the important needs which will continue to make SU a university which the student body and faculty can be proud of.



Well. I am overioved to see the local and campus law enforcement people are finally waking up to a potentially tragic situation. I am in the sincere hope such a tragedy

referring to the consumption of alcoholic beverages at SU football and basketball games.

Ever since I've been a student here at SU, the unchecked usage of booze and other contraband by fans at these games has really frightened me. One needs only to look at the tragedy which occured in Cincinnati. Ohio. in 1979.

On a fateful evening in December of 1979. 11-persons lost their lives in front of Riverfront Coliseum in Cincinnati. These persons were killed in a literal stampede for generaladmission tickets to a concert by The Who which was scheduled to take place that evening.

State, federal and local investigations which followed the tragedy revealed booze and drugs were the two major causes of the concert goers going literally berzerk in the rush for tickets.

Many of those who were waiting had been outside in the freezing cold temperatures for several hours and were becoming impatient. Then The Who started practicing inside the building, which led the fans to believe the concert was starting without them. This was also a contributing factor, reports revealed.

Since then Cincinnati has passed an ordinance which bans the sale of general-admission or festivalseating tickets, as they were called, would never happen again.

General-admission tickets are not the issue here. The issue here is and has been the unchecked usage of booze and drugs (and who knows what else) at SU sporting events.

Without the further stepped-up enforcement of the alcoholicbeverage policies on campus, what would stop such a tragedy as I've described from happening right here at SU? Absolutely nothing.

Policies are one thing, but laws are another. About the only thing the police can do now is arrest persons for disorderly conduct, minor in possession and other related crimes. However, if a person is 21 or older there is little that can be done.

If you ask me every person who enters the gates at Dacotah Field or the doors at New Field House should be subject to a pat-down search to check for booze and other illegal stuff.

These searches have been used in the past at concerts at SU and at sporting events on the UND campus.

Both the state and federal courts have ruled these searches are legal. I wouldn't mind being searched, myself.

From what I understand there are no state laws or city ordinances which cover the possession or consumption of alcoholic beverages in a sporting stadium or arena, such as Dacotah Field or the field houses. If there aren't there should

If any of our city, cour university officials are the time has come to lo at this potentially dans tion.

If you share my opinin you to make your voice through this forum or but appropriate officials.

I would think fam students) can wait the game, then get tanked up

It's your business then it can affect the safety ing of others, it is the res of all of us.





Consulting Engineer

6

6 years seniority as SU district state senator.

6 year member of Senate Appropriations Committee. Assistant Personnel Manager

6 years seniority as SU district representative

6 year member of House of **Rep. Education and Social** Services Committees.

Associate

Community Service Volunteer

Member - NDSU Womens Club.

Spectrum/Tuesd

... FOR EFFECTIVE SU REPRESENTATION

PAID FOR BY NDSU COLLEGE REPUBLICANS, S. VCULEK, PRESIDENT

ocal off-sale dealers support keg banning

By Andre Stephenson Fargo officials will apparently not opose an endinance at this time to an the sale of beer kegs after city li-tor dealers failed to show adeis support for the idea.

However, in an effort to bring all sales in the area under the curnt voluntary registration program, cornead alty officials are expected grapple with how to bring all the grapple with how any interest into compliance.

The current program is designed curtail the purchase of kegs that d up being consumed by minors. Under the plan, off-sale dealer plan, off-sale dealers mber the kegs and record the me of each buyer in an effort to he the logs easier to trace if they fiscated as evidence in amption-by-minors cases. Pur-

DATING GAME CANDIDATE

This coupon entitles you the chance to be one of the

16 lucky bachelors and bachelorettes randomly picked to be the contestants in the Dating Game. Just fill

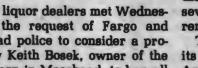
a later

chasers could face charges of con- Bosek's proposal. tributing to the delinquency of a minor.

Fargo liquor dealers met Wednesday at the request of Fargo and Moorhead police to consider a proposal by Keith Bosek, owner of the Bottle Barn in Moorhead, to ban all off-sale purchases of beer kegs.

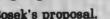
have complained that kegs are, in essence, more of a bother than they are worth. They are heavy and hard to handle, have small profit margins and have high security deposits for the barrel and tapper.

told the liquor dealers Wednesday the city might be willing to draft an ordinance against keg sales if enough off-sales stores supported



Bosek and other off-sale dealers

Fargo police chief Ed Anderson



But in a show of hands, seven of the dealers voted for the keg ban and seven supported continuing the current registration program.

Thus, the city will continue with its voluntary keg registration, said Anderson, who expressed reservations about an outright ban on beer kegs.

"Elimination of kegs would affect a lot of adults who buy them. There are a lot of legitimate uses of kegs and I would hate to see kegs go by the wayside," he said. Anderson also noted the current

registration plan is aimed at reducing drinking by minors and not at legitimate uses by adults. He also said he didn't think an ordinance against kegs would necessarily keep beer out of the hands of minors.

He called the registration program, which began in mid-July, a success from the standpoint of Fargo police, who have arrested five adults

as a result of raids on illegal keg parties. The cases are scheduled to go to court this month.

At the meeting, Bruce Quick, assistant state's attorney for Cass County, confirmed the success of keg registration. He said before the program, he could recall no cases against adults involving minors in a keg situation.

However, many of the Fargo liquor dealers noted that continued success of the program depends on 100 percent compliance by area offsale stores.

Bosek said he does not agree with the registration program and does not plan to mark his beer kegs.

The problem of dealing with Bosek's resistance to the program will probably be examined by Moorhead's Public Safety Committee, said Lt. Gary Landsem, who directs the registration program for the Moorhead Police Department.

Student aid defaulters are discovered in Philadelphia

(CPS)-Federal attorneys in the "City of Brotherly Love" have impounded the cars of 17 Philadelphiaarea residents who collectively owe some \$50,000 in student loan payments.

Federal marshalls say they'll keep the cars until the defaulters either pay off or make arrangements to pay off their loans.

The action is just a part of a nationwide crackdown by the U.S. Department of Education on defaulters who owe a total of \$3 billion in overdue guaranteed and direct government student loans.

By late September, the department will also have a computer to help push the collection effort farther.

Philadelphia officials hope their car towing will help make the point. "We're doing whatever we can to

get these people to pay off their debts to the government," says Peter Vaira, U.S. Attorney for the ninecounty Philadelphia area.

"We're going to garnish wages, impound cars and take whatever

property we can get our hands on to get these people to pay up."

Vaira has struck a tough-guy approach to loan collection before. In April 1981 he sued 102 area defaulters to get the government's money back.

Over 600 people have since ignored "repeated notices that they need to come in and take care of delinquent loans," Vaira says.

He estimates the 600 owe a total of \$450,000 in student loans, with an additional \$450,000 in G.I. Bill money.

Vaira readily admits the towaway action was aimed at scaring other defaulters.

"It had an electric effect on the whole comomunity," he says. "It woke a lot of people up and got them in here.

"So many people take the attitude that since the government doesn't come after us, we don't have to worry about the loan money we owe.' I think this shows them we will come after them."

Drop-out rate from college will rise if aid isn't available

(CPS)-The vast majority of students who get federal aid to attend public colleges would have to drop out if they couldn't get aid anymore, a new study has determined.

The typical aid recipient works at part-time job to help pay for colgets relatively lit help from his or her family and then has to go into debt to make it through public college, according to the study of how federal aid is used.

- The study, co-sponsored and undertaken by three administrator's associations in the wake of Reagan administration charges that student aid programs are inefficient and unneeded by students, found that families contribute an average of about 12 percent, \$469, toward their offspring's college educations.

About a third of the 2.2 million public college students who got aid last year received no financial help

from their families.

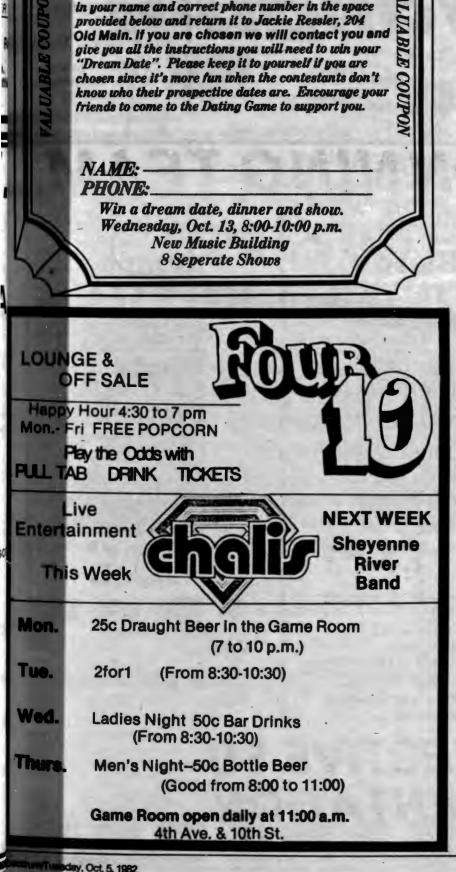
Those independent students raised 51 percent of the money they needed for school through jobs and 19 percent through need-based grants.

Students who got help from their 23 nercent of the milies earne money they needed by working, borrowed 19 percent and raised a total of 39 percent from parents and aid grants.

The families that did contribute to their children's education and whose children received some federal aid had average annual incomes of \$16,500 last year.

Half the students at public colleges who got federal aid come from families with incomes below the poverty line of \$9,500.

A full 66 percent of the financially -independent students earned less than \$6,000 last year.



day, Oct. 5, 1982

CRAP organized at college in Virginia due to apathy

(CPS)-Last spring a group of Univer- revamped their government, "and sity of Virginia students, calling itself the Committee to Remove Arrogant Politicos, set out to abolish its student council because, it claimed, no one took student politics seriously.

Now the group has itself disbanded, claiming no one took its cause seriously enough.

"People are pretty apathetic about student government here," expalins student Chuck Wehland, one of the founders of CRAP. "The whole thing is kind of a joke."

Virginia students turned out in force in 1980 to dissolve the college council, another branch of the student government.

The anarchist impulse this year died out because the student council responded, not because of apathy toward a committee trying to combat apathy, Wehland says.

'One of the reasons we dissolved is because the people who originally caused us to condemn the council are now gone. I think we've at least succeeded in getting some serious people in there, and now we'll give them a chance.

CRAP organized last spring, Wehland says, because the student council had become too political and corrupt. Wehland then claimed that the council members were "out for themselves" and "had done (nowhere) near the job of representing students and their opinions."

'The student council has taken a significant turn in the right direction," acknowledges Hunter Carter, one of the new members of the council.

"The council had become overly political. Some members were just too influenced by their own weight. Overall, it (the movement to abolish the council) has been beneficial and put a little pressure on us to become more student- and service-oriented.'

Efforts to abolish student government, however, are not unique to the University of Virginia.

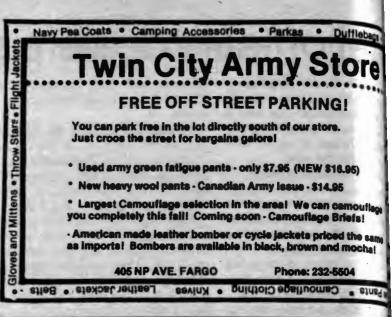
In just the last four years schools such as the University of Texas-Austin, Dartmouth, Georgia, Northern Colorado and Southern Illinois at Edwardsville, to name a few, have disbanded all or part of their student governments.

Although the disgruntled students often end up reinstating or restructuring their representative systems, the mere fact of doing away with student government usually gets the point across.

At Northern Colorado, for instance, students abolished and then now we've created something a lot better," says Mary Beth Gibson, campus activities coordinator.

But just in case things don't work out that way at the University of Virginia, Wehland says, "there's always next semester."

"We'll give the new council a chance," he warns. "But there's a possibility we'll be back if they abuse their power in the future.



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Spectrum/Tuesday

Stary, Out 5, 1962

Tanning parlors are busy in winter months

By Yvette de Ryk

Wouldn't it be nice if the tan you whether to get during the more could last throughout a 30 orked so low zero inter in Fargo?

At Sun Bealth Centre, 1441 S. niversity Dr., a deep, golden tan is esible and manager Dave Tweten there to help.

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un Hoelth Centre is a franchise. th other onghens tanning spas located Minneapolis-St. Paul h this is the first center Alth eten said business will Fargo, t up once the weather cools

"People love to come in out of the maxing weather to lie down on the mTens beds. It's a relaxing break a busy day," Tweten said.

Until now, most tanning systems ve required customers to stand up a cubicle in order to get a tan. by also run a higher risk of burn-g, wrinkling and drying of the skin such avetems, Tweten said.

The tanning booths use only midwavelength UV-B rays which ke longer to tan the skin. Overex-sure to ese rays can cause inese rays can cause inmentation of the skin ich is n as a tan, Tweten ex-

But the UV-A rays which the Sunina beds use, have longer and tan the skin imthout the danger of a

controlled and accurateosure to UV-A rays tans any visible stress to the n, Tweten said.

comes in, I'll only allow a 15-minute session. From then on, depending on his or her type of skin coloring, I'll allow 20 to 30 minutes every 24 hours.

"This requires seven to 10 visits and you should try to complete your first 10 sessions within two weeks. If you're hard to tan, you may need an extra three to four sessions," Tweten said.

The SunTana SunSystem uses fluorescent lamps which are 6 feet in length. There are approximately five tubes side-by-side on both the bottom and top of the bed. The top or "lid" of the bed closes similarly to the way a coffin closes.

"Customers love the idea of lying down rather than standing in a booth. It's so much more relaxing and after 20 minutes or so, you'll begin to sweat just as you would in the sun.

'We do recommend wearing goggles. They reduce the glare for sensitive eyes and just make things relaxing all around," Tweten said.

Each room is equipped with the tanning bed, wall-to-wall carpeting, a full-length mirror and a comfortable chair to take a short break in. A Sony Walk Man headphone set is also supplied for an extra touch of relaxation.

"A guy who workes over at the Super Value decided to give us a try. He's had an acne problem for many years and heard our tanning system might help it out.

After a few visits he was sold. He'd asked his doctor about medical complications and found out the doctor used the sunbeds too," said Tweten.

Prices start at \$6 per half hour or first-time customer you may purchase the grand opening

Nancy Raney tries out one of the tanning machines at a tan parlor.

to by Rick Glair

special of 10 half-hour sessions for maintenance program of 40 half-\$39.95. There is even a winter hour sessions for \$150.

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Three "Spectrum" section editors take to the road in search of stories, attempting to meet the editor's 60-inch per issue per section minimum. (We apologize to the makers of the movie "Quest For Fire.")

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More presidents speak at Kansas than anywhere else

(CPS)-Tucked away in a rolling prairie, Kansas State University enjoys an admirably solid if unspectacular academic renown, according to the Ladd-Lipset ranking of collegiate reputations. Athletically, it's terrific in basketball, traditionally lousy in football.

And it seems to attract presidents like flies.

Though the records are hardly definitive, unlikely K-State has been more successful in attracting U.S. presidents--and the attendant publicity-to campus than any other college.

The most recent was the Sept. 7 visit of Ronald Reagan, whose popularity at colleges is depressed by his_stance on military registration, his cuts of student aid and his administration's disruptive delays in making aid awards. But reagan's Kansas State visit drew some 11,000 enthusiastic, supportive listeners.

When in 1970 President Richard Nixon's poll ratings plummeted after his invasion of Cambodia, the killings at Kent State and a nationwide student protest strike, he also went to Kansas State, where he met a cheering crowd of students.

Two years before, Sen. Robert Kennedy made his first presidential campaign speech at KSU.

Republican contender Nelson Rockefeller "was sitting in a New York City restaurant, reading these glowing stories of Bobby Kennedy's spectacular reception here, and said, 'I could draw there, too,' KSU administrator Carl Rochet says. "So he scheduled a lecture here for later that year, too."

Gerald Ford spoke at KSU and Dwight Eisenhower "visited his brother, who was then president of the university, here many times," adds Rochet, who believes Theodore Roosevelt was the first president to campaign in Manhattan.

"I think any place that'll give you a standing ovation in front of TV cameras when your polls are dying is bound to be popular with politicians," explains an aide to David Garth, a political campaign consultant.

"And when you can't get to the geographic middle of the country very often, Kansas State probably begins to make a lot of sense," he concludes.

Out of "thousands and thousands and thousands of invitations the president gets each day," the KSU visit made sense to President Reagan for many reasons, says White House spokesman Doug Elmets. Among them was Reagan, who had addressed KSU's prestigious Alf Landon Lecture Series 15 years ago, wanted to celebrate Landon's 95th birthday by doing it again, Elmets says.

KSU's Rochet says the Landon lectures are the main draw, but concedes the unrelieved friendliness of the reception helps elevate the Landon series over other prestigious series on other campuses.

"Students here are less antagonistic, less likely to demonstrate," he says.

"Maybe it's the nature of the students. Maybe it's the Midwest character. Maybe it's the nature of the school. I don't know for sure."

To be sure, one student group did plan a peaceful demonstration against student aid cuts, the nuclear arms build-up and other administration policies. But generally students stressed the honor of having Reagan visit.

"I respect him because he's the president, but I don't like all his cutbacks on welfare and education," says sophomore Terry Stark.

"When I come back as an alum," adds junior Mike Davenport, "I'll be able to say, 'Yes, I was here when President Reagan spoke.""

"I think that any time you can get the President of the United States here, whéther you agree or disagree with his policies, it's a major honor to the university," says political science professor and lecture series Chairman William Richter.



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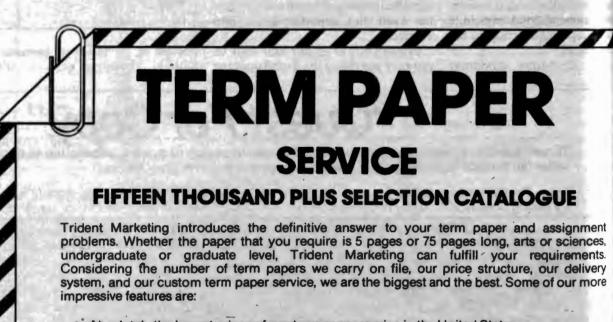
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It also helped that "it's an agricultural school, and he had some things to say about grain sales to the Soviet Union.

And the president, Elmets adds, "wanted to speak with a group of students who would be able to appreciate what he had to say. It's not that students at, well, Iowa wouldn't. This opportunity just came up."

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Police give safety tips to college students



g around campus at night. If you must walk alone, remember that trees offer good hiding places and to always walk briskly.

Photo/illustration by Eric Hylden

By Becky Larson With crime rates rising on camies across the country, college

udents, pspecially women, need to aware of safety practices and ention.

SU's Traffic and Security Bureau nted a booklet titled "Don't nces on Campus," giving ety and self-protection. rding to the booklet, violent rimes have risen by 50 percent or ore at hany schools nationwide. ce, murder increased 90 etween 1960 and 1974; ent up 150 percent; rape percent and robbery is up

aults

these crimes could have nted, however, if students. ed simple safety precau-

awareness is the key to safety, according to

Sargeant Olson of the Crime Prevention Bureau in Fargo.

"Know where you're at and who is around." he said. "If you hear a car door slam, find out where. Be aware. Be alert.'

You can often avoid an attack when you are outside away from your home by following these tips: *Always walk with someone at

night or in secluded areas. *Call ahead to your destination

and say when you expect to arrive. *Walk quickly and confidently; look and be alert and awake.

*Wear comfortable walking shoes, so you can run . Leed to.

*Avoid poorly lit, sech_sed areas. "Don't walk adjacent to buildings or doorways," Olson said.

*A women should hold her purse tightly. Don't swing it or hold it loose-

ly by the strap or handles. *Be smart, stay aware. Watch for a fire than to a call for help.

suspicious movements and listen for unusual sounds. If you think you're in danger, head for the nearest lighted store, house or building and call the police.

No matter how cautious you are. however, you may still be assaulted. If you are, you need to make some quick decisions. These suggestions are offered for women when an attack appears imminent:

*Analyze the situation. Is your assailant alone? Is he armed?

*If he is alone and unarmed, can you disable him with one blow? If not, it may be better to submit. Your main objective is to come away from the attack alive.

*Don't blindly kick, bite, poke and flail your arms; this will only infuriate your attacker more.

*If people are nearby, yell "Fire!" More people are likely to respond to

*Never fight back if your assailant is armed or if several men assault you. You will probably be hurt less if you submit.

*Try to talk your way out of the situation. Often, rapists are "trying to degrade the victim," reported Olson. Talk calmly and don't beg. Humbling youself unnecessarily will only worsen the situation.

*Don't get hysterical. Be as aware as possible even during the attack. Always look for a way to escape.

*Always think. "Make the best decision for you in your situation," Olson advised. "Remember, there is no simple answer for every situation."

If you are attacked, what do you do when it's over?

"Go to the hospital emergency room, tell them what happened and ask them to contact the police," Olson said. "Don't wash up, don't change clothes. Go as you are, if possible, because your assailant will have left evidence on your clothing and skin.

"Bring a change of clothes, because your clothes (that you wore during the attack) will be (temporarily) confiscated."

Your best bet then is to be observant. Know where you are, know where everyone and everything is.

Cooperate fully with the police, whether you are a victim or a witness.

If your assailant is caught, press charges. It is the only way to keep him off the streets, where he may attack someone else.

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GOOD MORNING, HEARTBURN

By Peter Marino

The following is a letter I wrote to the chairman of the work-study program when she requested a critique of the job I had. The names have been changed to protect the vicious. "Dear Mrs. Abrams:

For the most part, things have been going well. The people I work for are really great. I don't know what you mean when you say Dr. Mix is helpless. Once I let him out of his crib, he walked to the bathroom himself.

Let's see, what did I do today? I drove to Nome, Alaska for Dr. Doe to pick up one of his galoshes he left there in '68. Funny how he suddenly wanted that boot so bad. Anyway, I traveled eight hours by train. He insisted I hook the car to the caboose as the department is out of funds. And he was really gracious about it. When I got back and handed him the missing boot, he almost grunted. I respect the man.

You know how Gigi is always calling and promising to show up for work, but never does. Well, she called every hour on the hour and then actually showed up! She stayed for exactly twenty-five seconds, complained about having to hang up her coat, then left. The girl is priceless and I agree the department would be crippled without her.

Dr. Shott finally got his. Remember how he always complains about the electric pencil on the stapler and got a tiny blister on his finger. He's been out for three weeks.

I like Dr. Carodimas. He asked me to Xerox every encyclopedia in the Columbia University library and then staple them. I wasn't doing too well until the entire population of Mexico City stopped by to help me out.

I can understand how the secretary hurt her hand when she punched Dr. Burd. He came in the office the other day and began wailing about being a little boy in a Nazi concentration camp. He was pretty convincing and I was on the verge of tears.

That is until I looked on his file record and found out he was born in New York City in 1943. Now, unless his family moved to Germany at the height of the Jewish oppression, I don't think his story is bonafide.

I was pretty angry about it too. So I threw a fire cracker into his office and locked the door on him. He began screaming 'The British are coming! Look, it's the Red Coats!'

'So you have your numbers from that war, too?' I shouted to him before I went back downstairs.

When I got back in the office, I saw him jump out of his window and run across the lawn yelling, 'Freedom, sweet freedom! The South done lost the wah!'

Dr. Tacy went into the hospital last week to have that idiotic scholar's robe surgically removed.

Dr. Feinlight was ecstatic today. She said her baby's first words were 'iconoclastic' and 'ambivalence.'

'We're absolutely hawkish about the pseudo-scenario created by the verbiage topography in our dwelling institute,' she -said. 'Indeed, my daughter's lexical ability reminds me of academicians who write in dialect.

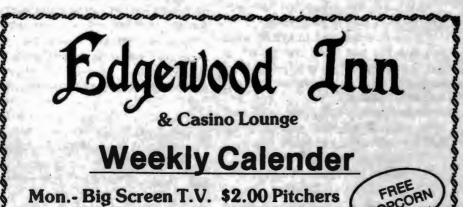
Her husband was quick to reply, 'Yes, I agree.'

Dr. Prodd had his Ph.D. framed and hung on his wall. It came with the 3 p.m. delivery, but the mailman told him he owed the Cheerios company three more box-tops and money for postage and handling.

Mr. Morrison couldn't make many of his classes this week. He had to shop and cook Monday; he had dishes and vacuuming to do Tuesday; Wednesday was his day for the car pool; Thursday it was tea with the neighborhood mothers; and Friday he brought his class home to disinfect and deodorize the bathroom.

Mrs. Trimmage tripped down the stairs from the fifth floor to the basement. She exclaimed, "Now isn't that amazing? A minute ago I was in philosophy and here I am in English. I'll try that again sometime.'

In conclusion, Mrs. Abrams, I can



say I really like my job. Occasionally, I feel like I'm walking into the twilight zone. I'm sure it won't be long before something really strange happens. Submitted for your approval."



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lousemothers are big part of SU Greek life

Lasting in adships, a home away om home, sisterhood, emotional apport, brocherhood and campus

blie Lenderen, Caroline Berg and thar Bring as SU Greek sorority d fraternity housemothers have ase ideas in common about the

ganizations they are a part of. Landgran, who is with the Kappa appa Gammas, is the youngest usemother at SU. She is a aduate student in college student ninistration and hopes be a Union director some day.

ppa G

She is the inly person living in the open sorry by house. "The trail ing is more of a lodge-pe house. I have an apartment and are is a ligge living room and kit-

DACOTAH INN

Upper Level of Memorial Union

By Jeanne Otterness chen for meetings and meals," she said.

> The sorority women do seem to congregate in the living area, though, and a steady stream of people come over during the day to study or chat, Landgren explained.

Landgren said she sees herself as more of an older sister to the sorority members than a mother.

"I just don't fit the matronly-type role."

She pointed out that sororities are a good way to meet other people and make friendships that will last long after college. Belonging to a sorority is also a good way to become more involved in campus activities.

Landgren said she tries to have an open door policy and be there when the women need her.

She attends the Kappas' Monday night meetings and other social functions. She also does the bookkeeping for the Kappas.

Landgren received her bachelor's degree from SU. While an undergraduate, she was a member of the Kappa Delta sorority in which she was active and is still involved through the Alumni Association. When she was considering the KKG position, her KD sisters asked her how she could even think of taking the job.

"Becoming the housemother was a good economic choice for me. I was looking for a housing position while attending graduate school and I was contacted about this position. They called and asked me if I was interested, and if I was, I could have the job.'

Landgren said she wishes more people would go through Greek rush just to see what sororities are all about.

"Peer pressure gives people a preconceived idea of what it would be like. I realize that being Greek is not for every person," she said.

Some of the reasons she cited for the decreasing number of women going through rush are economics, more working women, the poor publicity about Greek life, wellorganized dormitory activities and fraternity sister programs.

Caroline Berg is in her fifth year as Gamma Phi Beta sorority housemother. She is also the cook, a



job she really enjoys.

"I always had it in the back of my head that I would like to be a housemother. A friend of mine was a fraternity housemother at the University of Minnesota and I thought it looked interesting." Berg said.

"The girls really have a sisterhood, one that will continue the rest of their lives.

"I kind of feel like their second mom," she said. "They call me Mom. This is their home away from home. The atmosphere is different but it is still home.

"I'm inclined to get involved in what the girls are doing. I really feel that our relationship is lasting. The girls give me so much more than I give them. They keep me young,' she said.

As far as official duties, Berg is there to chaperone and attend the meetings and social functions. She said she likes to see the women perform when they belong in organizations such as choir or Orchesis.

Berg said she couldn't think of anything that would be called a drawback in belonging to a sorority.

The time commitment is usually high and sometimes there is friction among some of the women, but the benefits outweigh the disadvantages, she said.

Living in a sorority doesn't cost any more than another living arrangement, although there are the added social fees.

"For what they get out of it, the cost really isn't much."

Esther Bring is the housemother at FarmHouse fraternity, the only fraternity house on campus with a housemother. She is currently spending her first fall in this position.

"My impression of FarmHouse is that it is helpful. My two sons belong and through the brotherhood, it has supported and challenged them and made them feel better about themselves," Bring said.

Because her children were grown, she was looking for something that would be self-fulfilling.

Bring's son, Peter, is a senior at SU and is vice-president at FarmHouse.

In the past I didn't relate to FarmHouse as part of the Greek system because I was unfamiliar with the system. I'm now learning about it and its function within the system," Bring said.

Her duties as housemother are to be present at meetings and meals and special activities. She also wants to share in the lives of the men of FarmHouse by getting to know and care about them.

"I'm here to supply emotional support for them on a day-to-day basis."

Bring said fraternities put demands on a person's time and sometimes require spending time on things other than what a person would normally choose.

"Sometimes the demands and pressure for time are detriments to studying. But it makes the studying they do more purposeful," Bring said.



Many elements influence students' nutrition habits

By Jean Wirtz

Weight control has created a battleground for students on college campuses.

College is a time of adjustments for students and consequently their eating habits are affected. These effects take the form of over and under consumption of food.

"Overweight students are more aware than other students of what they eat, but not necessarily how much." SU nutritionist Ruth Krause said.

Psychological influences affect the tipping of the weight scales. Food is regarded as a social acceptor in our society.

"Food is social," Krause said.

The activity level of the student plays an important role in weight control. Exercise tends to be the first thing eliminated in a student's hectic schedule.

"They're too busy to exercise," Krause said.

The dining centers are aware of the weight control problem and assist in combating it. A 1.400-calorie diet guideline is available to students.

"We try to provide balanced meals and encourage students to follow the example," Krause said. Fresh fruits and vegetables are

available throughout the entire year at the dining centers.

'We alweys try to have fresh fruit available," Krause said. While the dining centers try to

12.

provide a nutritious assortment of food, the responsibility of choice falls upon the student.

"The burden of discipline is on the student." Krause said.

Behavior modification is a step toward weight control. Students must watch their food intake and learn to immediately take off gained pounds.

"Beware of what food does to you," Krause said.

The battle against weight gain is not without its adversaries.

"In a college atmosphere, alcohol is a contributing factor," Katherine Staples, assistant professor of food and nutrition, noted.

Fat is a necessary part of the diet and shouldn't be completely eliminated. Fat provides an important element-satiety, a feeling of satisfaction.

Nutrition education is important, but difficult to pass on.

'People think they know all about nutrition, but when it comes to putting it into practice, they don't,' Krause said.

"Losing weight takes selfdiscipline and the ability to say no. Weight loss is a gradual process that should encompass manageable goals.

"Losing weight is a total commitment," Krause said. "Know vourself."

Weight control means a diet for life-an everlasting tug of war between the scale and you.



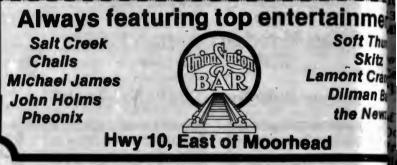
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By Rick Olson

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At the Foot of the Mountain, a fessional theater group am Millerapolis, will present takes, Asbes, We All Fall Down'' 8:15 p.m., Oct. 7, in MSU's Weld

"Ashes, shes" is a drama about dness and society's ICISST nial of death.

ction is sponsored by The grod 6 MSU Fer inist Collective, Alumni asociation, Veteran's Club,

omen's Unitarian and the llowship of Fargo-Moorhead. Tickets are available at Straus,

ne MSU udent Union Exchange and the SU Student Union. Admisn is 35 for the general public and for students.

An MSU art faculty exhibit is cur-only on display through Oct. 8 in enter for the Arts Gallery.

ct. 7. 8, 10 and 11 in the Frances azier Constock Theater at Concor-

"J.B." is a Pulitzer-Prize winner Archibald MacLeish. The member cast will be directed by lelen Cermak, a speech instructor

"MacLeish's interpretation resents a colution of love which has meaning for us today," Cermak says. Additional information can be obsined by alling the box office at 99-3314.

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S 10. 41 74

The second exhibition of alumni rt work, oth by professionals and hose by pocation, is being planned n conjunction with the 1982 iomecoming. The exhibit will be isplayed in Hultz Lounge Oct. 11 to

Open to all alumni and former tudents, ast year's exhibit drew ntrants from far away as Texas, California, Massachusetts and

Coordinating the exhibit is local Schwartzman Green. ection

A rotating display of Sen. Milton oung's nemorabilia from his areer in the U.S. Senate is current-

ly on display in the lower level of the SU Library. **Print-making**

The first exhibition of Fritz Scholder's exploration of the monotype medium, a form of print making, will be displayed in Union Art Gallery from Oct. 13 to Nov. 14. The opening reception, scheduled from 3 to 5 p.m. Wednesday, Oct. 13, will highlight the unveiling of a Scholder painting recently acquired by the SU student-owned art collection.

The Scholder exhibition offers a unique and contemporary view not only of Scholder's work, but of the southwestern landscape and its people, according to Carol Bjorklund, gallery director.

Presently on exhibit through Oct. 7 is "A Century of American Landscape Photography."

Gallery hours are 10 a.m. to 7 p.m. Monday through Wednesday, 10 a.m. to 5 p.m. Thursday and Friday, and 1 to 5 p.m. Sunday. **Dedicatory** concert

An original composition by Dr. Edwin Fissinger, SU music department chairperson, will highlight the Dedicatory Concert 2 p.m., Sunday, Oct. 17, in Festival Concert Hall of the Music Education Center.

"Consecrate the Place and Day" is a poem by Joseph Addison set to music by Fissinger. He will conduct the SU Concert Choir as it performs this and other selections at the concert. The concert is open to the public at no charge. A reception, including refreshments, is planned. **Mu Phi Epsilon**

Diana Warner, province governor of the North Central province of Mu Phi Epsilon, national music fraternity, will be the guest of the local chapter, Phi Iota, of Concordia Oct. 3 and 4.

Warner will be honored at an open program in Recital Hall, Hvidsten Hall of Music, 8:15 p.m. on Oct. 4. The Mu Phi Epsilon scholarship winners and members of the Concordia music faculty will perform for the program.

For further information contact Phyllis Wallin, assistant professor of music, at 299-4414.

Historical Society

On Saturday, Oct. 9, the Clay County, Historical Society will celebrate its 50th birthday. The museum, located at 22 No. 8th St., Moorhead, will be open from 1 to 4 p.m. with the Fiber Crafts Guild giving demonstrations of spinning wool, silk, linen and cotton, as well as carding, weaving and natural dying.

National Spinning and Weaving week is Oct. 3 through 9. Members of the F-M Fiber Crafts Guild will exhibit spinning wheels and related fiber work from the collection. Visitors will have an opportunity to try the museum's floor loom and add to the rag rug.

Door prizes include a rug woven on the museum loom, a society membership and copies of "Roy Johnson's Red River Valley," and the society's new "Vintage Photographs of Rural Life." Plains

Luis Jimenez Exhibition of sculpture, lithographs and drawings is on view at Plains Art Museum, 521 Main Ave., Moorhead, through Nov. 7.

Rourke

Recent paintings by Charles Thysell, Fargo, are being exhibited at Rourke Art Gallery through Oct. 24. Rourke Art Gallery is located at 523 S. 4th St., Moorhead.

The Joseph and Jane McDonald show of "Photos and Pottery" has been extended through Oct. 24, at Rourke. Delicately colored, wheelthrown pots and black and white altered landscapes are being exhibited by the San Francisco artists.

For further information, call 236-7171. "No, No"

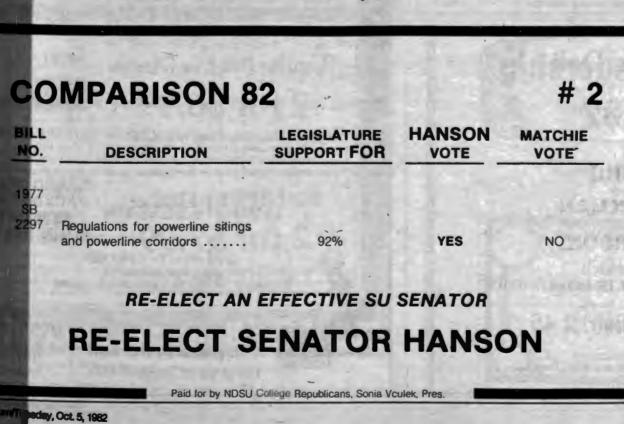
One of Broadway's most popular hit shows, "No, No, Nanette," has been scheduled to open the 1982-83 season of theater entertainment at MSU.

It will be presented for four performances only at 8:15 p.m. Oct. 21 through 23 with a special Sunday matinee performance 2:15 p.m. on Oct. 24.

All performances of "No, No Nanette," will be in MSU's Center for the Arts. Ticket reservations may be made by calling the box office at 236-2271.

Photographs

The everyday activities of Minnesotans during the first half of this century are captured in "John Runk, Photographer," an exhibit showing through Oct. 15 at MSU.



On loan from the Minnesota Historical Society, the exhibit consists of 51 photographs by the Stillwater, Minn., photographer. Runk wandered throughout Minnesota in the early part of the century, capturing the look of small town life, farming, logging, the leisure life and even the prisons of the state.

Library hours at MSU are 7:45 a.m. to 10:45 p.m. Mondays through Thursdays, 7:45 a.m. to 4:15 p.m. Fridays, 10 a.m. to 5 p.m. Saturdays and 1 to 10:45 p.m. Sundays. KCCM

The Minn. Orchestra continues to be the only major symphonic orchestra in the United States that has its full concert season broadcast live to a national audience.

KCCM-FM 91.1 will broadcast the Minn. Orchestra's 1982-83 season 8 p.m. Fridays.

The St. Paul Chamber Orchestra, under the direction of Pinchas Zukerman, will be heard by a nationwide audience for the third consecutive year, when the 1982-83 season of SPCO concerts are transmitted live via satellite to public radio stations across the country.

Area listeners can tune in this performance series on KCCM-FM which will broadcast the SPCO concerts 8 p.m. Saturdays. C-400 Club

Paul Erickson and members of the 1982 Lapland Ski Expedition will share experiences of their trek in a program titled "A Bold Vision of Lapland," to be presented during the C-400 homecoming meeting, Friday, Oct. 8, at Concordia. The program follows dinner, which begins at 6:30 p.m.

For ticket information call 299-3146. FMCT

Open auditions have been announced by the F-M Community Theater for the family musical "Scrooge," the popular adaptation of Charles Dicken's "A Christmas Carol."

Auditions will be held 2 p.m. Oct. 3 and from 4 to 7 p.m. Oct. 4 and 5.

The script calls for 15 males ages 9 to adult and 15 females ages 9 to adult. Some extras of all ages will be included in the cast.

Those persons interested in auditioning will be asked to read from the script and may be asked to sing a song.

Production dates are scheduled Dec. 9 through 12 and 16 through 19. Call 235-6778 for further information

The annual SU homecoming is quickly approaching. Scheduled for Oct. 10-16, it will be filled with activities which will appeal to a variety of interests.

Help get the Bison fired up. It takes an all-campus effort to make homecoming a success and the homecoming committee and football team would like to encourage you to get out and enjoy yourself. Join us to make 1982 "Bison Blitz" the best SU homecoming ever.

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Efficiency, one block from SU. Call 235-0919. Typewriter Rentals: Save at A-1 Olson Typewriter Company; 635 1 Ave. N; Fargo, ND. Phone 235-2226.

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75 Datsun B210, 35 mpg. High miles, new clutch, \$1900, 293-7761 for Scott G.

Used Stereo Components. Name brand tuners, amps, cassette decks, turntables, speakers, stands. Warrantied. Mitchell's TV, 408 Broadway, Fargo, 232-7473.

2 Victor 16mm optical-sound movie projectors. \$150/175. Good working condition. 232-5492 evenings.

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Have you chosen a fashion career? Start getting experience now while earning that valuable diploma. For an interview call Bonnie at 235-3681 after 5 pm.

The Fargo Clinic is seeking healthy sperm donors. GRATUITY. For more information, please call 237-2269.

Female roommate wanted Nov. 1. \$118/mo.

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STUDENTSII Pick up FREE discount cards to be used by your parents at area participating motels at the Activities Desk of the Memorial Union-Call 237-6134 for more infomation.

LOST & FOUND

LOST: Thick band ring with a Rose setting and small clear stone. Reward will be paid. Please return if you find it, 282-5171.

MISCELLANEOUS

Show your stuff--Enter the campus decoration contest during Homecoming Week

Homecoming Buttonsi Get YOURS for \$.50 in the Alumni Lounge Oct. 5-15.

Are you a Preppie or a Nerd? Your debut is coming soon....

Come see a Bachelor/Bachelorette win their Dream Date, Dinner & Show. Wed., Oct. 13, 8-10, New Music Building.

Becktron: Glass of beer, lumpy cheese and scoops about the doz. Soon you'll be a woman of the rosel Rog, double M & S. Cat

Cowboys aren't the only ones who chew tobacco, so let's see ya spit at Wild West Day, Oct. 15.

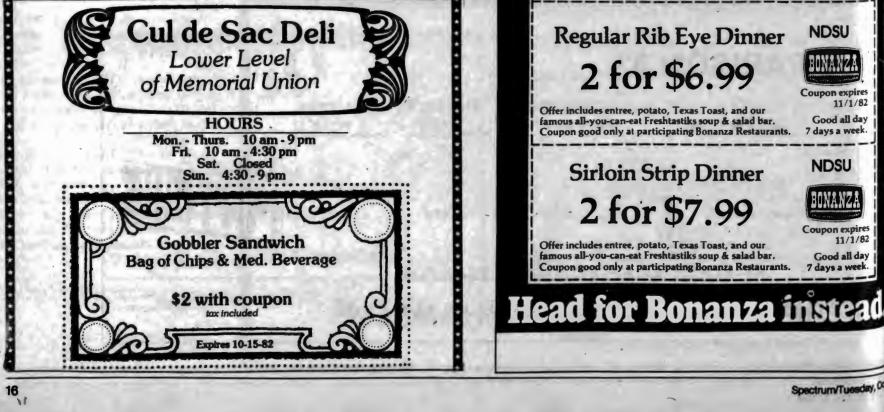
Gator lovers and brief case holders unite at the annual Homecoming dance, Oct. 11, 9-1 featuring Chails and Soft Thunder!

Will the Kappas win the campus decoration contest again this year and take home \$50 or will a challenger rise to beat them?? -

> SKI SWAP OCT. 25-28 BALLROOM

BEER GUZZLERS BEWARE! Chugging contest at Union Mail, Oct. 15. 2-4:45

along, too.. Brown Eyes





PRESENT





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OCT. 8, 8 P.M. NDSU NEW FIELDHOUSE

TICKETS: \$8.50 STUDENT S9.50 GENERA S10.50 DAY OF SHOW AVAILABLE AT: NDSU MUSIC LISTENING LOU MSU STUDENT UNION CONCORDIA STUDENT UNIO ALL MOTHERS RECORDS BUDGET TAPES & RECORDS BRASS & WAX, BRECKENRIDG



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CAMPUS CLIPS

All items for Campus Clips must be IRHC submitted by 5 p.m. Tuesdays for Friday's editions and 5 p.m. Friday for Tuesday's edition. Clips may be submitted at either the Activities Desk or "The Spectrum" news office in the Union.

Agronomy and Soil Science

An organizational meeting will be held at 7:30 p.m. today in Walster 221

College Democrats

A meeting is at 7 p.m. today in the Family Life Center Room 320-D.



There will be a meeting of the Inter-Residence Hall Council at 6 p.m. today in the Family Life Center Room 320-F.

Phi Upsilon Omicron

All members are encouraged to attend the bi-monthly meeting at 7 p.m. today in the Founder's Room of the Union.

Judo Club

All new members are invited to attend a meeting at 6:30 p.m. tomorrow in the wrestling room of the New Field House.

Amateur Radio Society

A meeting will be held at 7 p.m. tomorrow in EEE Room 201. It is extremely important that all members attend.

Alpha Lambda Delta

A short meeting will be at 7:30 p.m. tomorrow in the Family Life Center, Room 319.

Language Club/Alpha Mu Gamma Everyone interested in languages is invited to attend a meeting at 7 p.m. tomorrow in the Family Life Center Room 320-D and E. SCA

Society of Creative The Anachronism will hold an informational meeting for all interested in medieval life at 7 p.m. tomorrow in the Crest Room of the Union. **College Republicans**

District 45 legislature candidates Don Hanson, Steve Swointek and Donna Nalewaja will speak at the 7 p.m. meeting tomorrow in Meinecke Lounge of the Union.

Blue Key All members are urged to attend a dinner, initiation and meeting at 6 p.m. Thursday in the Student Government office. SOTA

All Students Older Than Average members are invited to attend one of two Library tours. These tours will be on Thursday and start at 11 a.m.



or 7 p.m. Meet in the Library Multi-Purpose Room to start the tour. Home Ec Ed Dept.

All HEEd juniors need to attend an important meeting on student teaching at 3:45 p.m. Thursday in the Family Life Center Room 212. **Trap and Skeet Club**

A regular meeting for all interested students will be at 7:30 p.m. Thursday in the Forum Room of the Union.

Student Advisers

The monthly meeting will be at 7:30 p.m. Thursday in the Founders Room of the Home Ec Building. All advisers should attend as Gloria Taffee is the guest speaker.

Biblical Research Twig

A meeting on how to interpret the Bible will be at 8 p.m. Thursday in Crest Hall of the Union. All are welcome to attend. Newman Center

A concert by Jeff Steinberg will be at 7:30 p.m. Friday in the Newman Center Hall. A freewill offering is all that is required.

SOTA

A morning coffee for all Students Older Than Average members will be at 9 a.m. Friday in the Founders Room of the Home Ec Building.

Recreation Students

The first Rec Club meeting will be Sunday, Oct. 10 in the New Field House from 7 to 9 p.m. All recreation students should attend and bring tennis shoes and swim suits.

Bison Raiders

A Raiders meeting will be at 6:30 p.m. on Oct. 14 in the Old Field House Room 201-E.

Bison Blitz

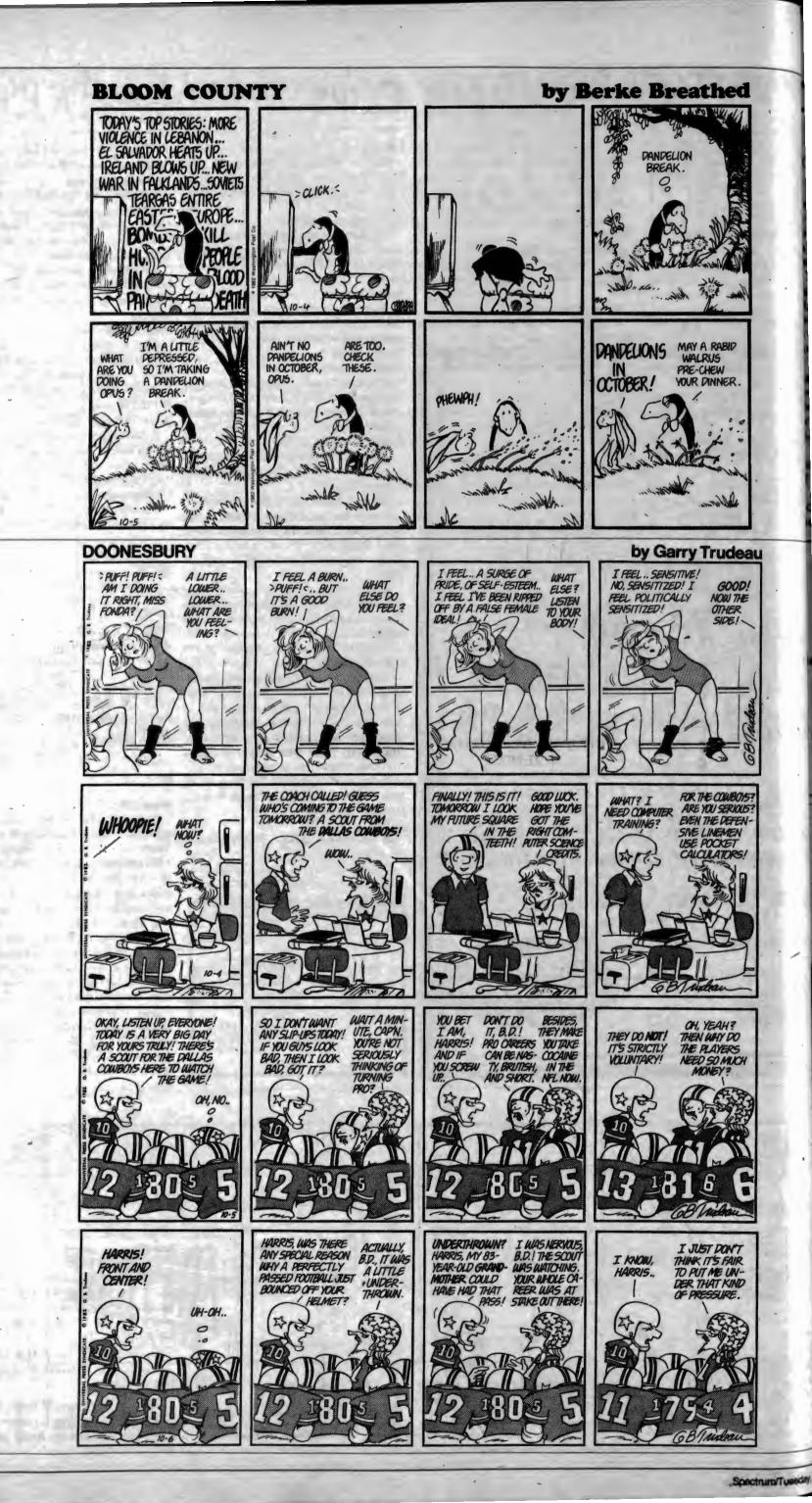
Get into the Homecoming Spirit. Buttons will be on sale in the Alumni Lounge of the Union starting today.

The Music Marathon will be Oct. 12. All people with musical talent are asked to participate. All others are requested to listen from 10:30 a.m. to 4:30 p,m.

The Wild West Day will be Oct. 15. Events for this year include many contests and food. It starts at 2 p.m. and will be held in the Union Mall or if it rains, in the Old Field House.

The Homecoming Dance for all preppies and nerds will be at 9 p.m. on Oct. 11 in the Old Field House. Chalis and Soft Thunder will be the featured bands.





college sports face money problems just like the pros

By Jeff Luitjens Football and television--two mericen Estutions linked together a less than happy marriage.

Take a look at the pro football ayon strike as one example. The o players have a desire to share in a revenue that the owners have mand from the three television tworks.

But fear not, we always have colte football. Maybe. If two univertes and a U.S. District Court judge we their way, the current contract televise NCAA football would be rown out the window.

The problem that the National Coldate Athletic Association is now cing began because of money. To derstand his problem with the ney, we have to understand how oh.

This year's NCAA television conoct with ABC and CBS is worth a million.

All the money taken from the netorks is split among the members of NCAA. How much you get

unisex

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COLLEGIATES!

air Replecement Center

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YLING

depends on if you appear on T.V. a little or a lot. It also depends on if you are a larger Division I school like the University of Minnesota, or a smaller school like SU. The larger schools grab the bigger audience, so they make more money.

As an example, three weeks ago the SU-UND game was a regionallytelevised game on ABC. This game was opposite the Minnesota-Purdue game on CBS. SU and UND brought in \$9,000 for each of the members of the NCC. Minnesota and Purdue took in over \$200,000 to be split within the Big Ten. There is a bit of a difference.

Last year, however, some Division I schools threatened to drop out of the NCAA in favor of the College Football Association in order to negotiate their own separate television contracts.

These larger schools argued that they shouldn't have to share the wealth with other colleges that seldom appear in front of the network cameras.

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The two sides reached a compromise last year when the NCAA agreed to change the way it divides up the television money. It also realigned its divisions so fewer schools are eligible to share those revenues. This did not end the dispute.

Soon the universities of Georgia and Oklahoma sued the NCAA anyway.

This brought the issue in front of U.S. District Court Judge Juan Burciaga. In his decision, Burciaga agreed to let individual schools make their own television deals.

He said the NCAA had violated anti-trust laws in monopolizing broadcast rights for its member shools.

SU athletic director Ade Sponberg outlined the next steps the NCAA would take.

First, they asked for a stay of the decision from Burciaga. This was turned down.

Next, the NCAA went to the 10th District Appeals Court in Denver to ask for a stay. This they received last week.

C. Dennis Cryder of the NCAA's programming department said, "The majority of our member institutions are somewhat surprised that the action came in the middle of the 1982 season."

Kurt Ockershauser, a lawyer for Oklahoma said, "The NCAA and the networks and anyone following the issue should have seen it coming."

Ockerhauser said the real issue is not the timing of the decision, but whether the member institutions of the NCAA have sole property rights to their television broadcasts.

The court ruled the NCAA did not control them nor could the NCAA require as membership that the institution sign over their rights.

Sponberg, on the other hand, said the two maverick institutions were not thinking it through when they went ahead with their court fight.

Sponberg doesn't think that any package deal the individual conferences could put together could equal the deal now being taken in with the NCAA contract.

Sponberg sees the future of college. football on television as those individual conferences, the Big Ten, Big Eight, Pac Ten, Southwest Athletic Conference and the major independents making individual contracts with one network.

The problem here is that interconference play could present a problem. If one network has the exclusive rights on one team, that network is not going to like to have the team it has the rights to appear on another network.

Burciaga commented that the NCAA has strayed too far from the purposes for which it was organized.

"It would be unseemly for the court," he said, "Having found an overt violation of the anti-trust laws, to allow the violation to continue for even a single day, let alone the rest of the season."

When asked where schools like SU fit into the plans of the bigger schools, Sponberg said they don't.

This will hurt the athletic program in many ways, though as Sponberg said, he didn't see it breaking the program.

He foresees no drastic cuts in the program as far as the number of sports offered. It will take away any money that has come from the networks in the past.

This money is used mainly to enhance the program now and also provides funds for the national championship game which the Bison were in last year.

As it is, the game is not a breakeven situation for the teams. With the money from the networks for carrying the game, the schools can turn a profit. With the current contract, the networks are obliged to carry six NCAA Division II and Division III games along with the championship games of each.

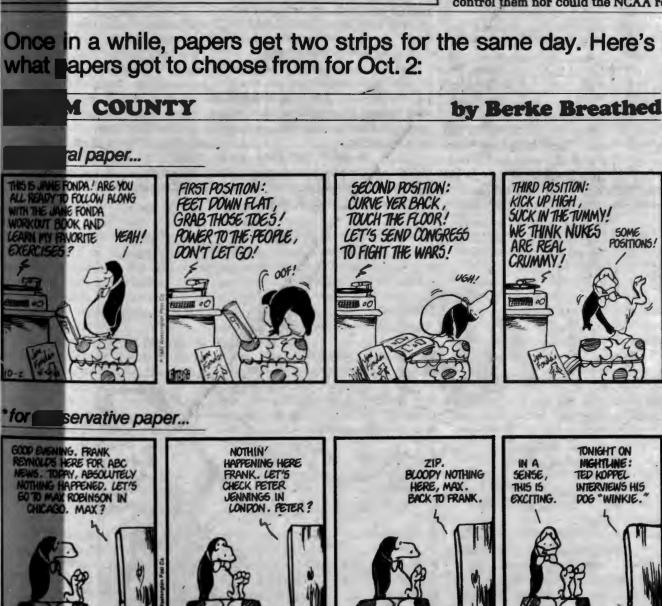
Sponberg doubts if anyone would see either network picking up the games if the contract is voided. Also the free publicity the university would get from just one national television appearance is a loss not only to the athletic program, but to the school as a whole.

The recruiting for the football program is helped immeasurably by seeing the Bison on a national game. But also the image of the school itself is enhanced by the appearance. People who would not normally hear of SU do because of one game. This can spawn an interest in the school.

On the surface this seems to be a case of the rich getting richer and the poor getting poorer, but the smaller schools do not have any place in the revenue plans of the larger schools.

If the NCAA loses this case, its power will be diminished significantly.

The association will probably continue, but every time it makes a judgment it's more than likely going to end up in court.



w, Oct. 5, 1982

The Herd wins another game against SDSU

SU's football team slipped by the Jackrabbits of South Dakota State by a score of 10-3 in Brookings, S.D. Saturday afternoon.

SDSU came into the game with a 2-1 conference record and the loss puts the Jacks' hopes of a conference crown in a dim light.

SDSU does have a good team though, as the Herd found out in the early part of the game.

The Jacks are led by junior quarterback Mike Law. Law was 13 for 22 in passing attempts which was good for 108 yards.

On the first series of the game the Jacks received the opening kick and started their initial drive from their own 33-yard line.

Eleven plays later the Jacks were already on the scoreboard with a 37-yard field goal by combination kicker-nose guard Ken Jensen with 8:45 left in the first quarter.

The Bison were hurting right from the onset. When Jensen kicked off to the Herd, the Bison fumbled the ball but made the recovery on their own 3-yard line which was not a good place to begin a ball game.

The farthest the Bison could advance the ball in the first quarter was to the Jack's 49-yard line. SU's punter Phil Ostlie started his day off slowly as he only kicked the ball 27 yards.

In the second quarter the Bison had the ball to start off the quarter. On the third-and-eight play, SU's quarterback Mark Nellermoe threw a key pass to Mark Luedtke for a big SU first down. The next third-down situation the Bison faced was handled in the same fashion as Nellermoe completed one to Doug Nutton.

The Bison drive ended on the Jacks' 25-yard line where Luedtke had to boot a 42-yard field goal. Luedtke's kick just got over the very corner of the cross bar and the Bison were tied up with the Jacks at 3-3.

The Jacks' next series of downs was a strong one. SDSU travelled all the way from their own 35-yard line to the Bison 18. Law went to the air on second and 14 and his pass was picked off by SU's linebacker Steve Garske. The interception was Garske's first of the year and couldn't have come at a better time for the 6-foot-3 inch 213-pound junior.

Each team had the ball one more time before the first half came to a close and neither team could advance the ball. The first half ended with the score still tied at 3-3.

The Bison appeared to have things in proper order starting the second half. SU's Jeff Conley took the second half opening kick off to the Bison 41-yard line. The runback was good for 37 yards and it put the Bison in pretty good field position. SU's hopes for scoring were stifled by SDSU's tough defensive squad as the Bison only moved the

By Kevin Christ ball 5 yards. Ostlie, who was aver-'aging 37.1 yards a punt before the game, kicked his second bad punt in three tries as he kicked the ball 23 yards to the SDSU 30-yard line.

On SU's second series in the third quarter Nellermoe dropped back to pass on second and nine from the Bison 24. SDSU's Randy Pirner intercepted the pass on the Bison 31 and could only advance the ball to the 30-yard line of SU.

The interception was a big break for the Jacks. The only problem was SDSU was assessed a clipping penalty on the run back and the penalty put the Jacks back to SU's 45-yard line.

The Jacks could not advance the ball more than 2 yards though, and Dave Bidinger had to come in to punt for SDSU.

Bidinger hit a beauty that was downed on the SU 2-yard line putting the Bison in the same situation as at the start of the game.

Nellermoe managed to get the Bison out of the hole and the Herd moved the ball down to their own 41 before Ostlie had to punt again.

This time Ostlie connected properly and hoofed a 44-yard punt.

The next series for SDSU was the third series in a row for the Jacks in which they were unable to get a first down. The Bison began the next series from their own 32-yard line.

Nellermoe and company finally showed the 8,540 fans attending what the Bison offense was all about with this drive.

Nellermoe began the drive with an 11-yard pass to Luedtke. Dan Harris followed up the pass with a 17-yard run which put the ball on the SDSU 40. Jeff Willis picked up 5 yards for the Bison and Nellermoe picked up 15.

Nellermoe was sacked and a couple more runs by Willis and Harris gave the Bison a first a goal situation on the SDSU 4-yard line.

It didn't take long for SU to decide how the Herd was going to get into the end zone as Nellermoe threw a pass in the end zone to tight end Terry Baer. The touchdown was Baer's third of the year and it was his first conference game touchdown. Luedtke kicked the extra point for the Bison to make it 10-3 SU.

For Lucktke, it was his 16th straight extra point without a miss this year. The four points he scored against SDSU makes him the leading scorer on the Bison team with 31 points. He just barely passed Nellermoe who has 30.

The scoring drive for SU went 68 yards in eight plays and the touchdown came with 2:50 left in the third quarter.

With the ball now in the possession of SDSU, Law faced a third and six situation and was sacked losing 6 more vards. Fortunately for the Jacks, the Bison were caught offside and SDSU now had a third and one which was converted into a first down in short order.

The third quarter ended with the ball in SDSU's possession on SU's 46.

After the Jacks moved the ball down to the Bison 33, SDSU was nailed for clipping which put the ball back on the Jacks 49-yard line. With a first and 28 at hand, Law ran the ball for 4 yards and threw two incomplete passes forcing the Jacks to punt with 12:08 left in the game.

The Bison could only advance the ball 6 yards and the Herd had to punt the ball back to SDSU.

With 10:09 left in the game the Jacks had the ball on the 50-yard line. A combination of passing with a few scattered running plays took the Jacks down to the Bison 29-yard line.

A Bison pass interference infraction gave the Jacks an automatic first down and the ball was on the 20-vard line.

A big break developed for the Bison as SDSU's Rick Wegher was caught way behind the line of scrimmage taking a 12-yard loss back on the 32-yard line.

Law tried to regain some of the yards on a run, but only picked up 7 yards. Law was then sacked which cost the Jacks 10 more yards bringing up a fourth and 25 play.

With only 3:44 left in the game the Jacks had to punt the ball away.

The Bison started their drive on the 15 and ate up enough yards and enough time to end the game, winning 10-3.

Chris Broome and Pete Boldon Falls, S.D. to match up with lead the Herd in defense with eight ings of Augustana College. and seven unassisted tackles each. Boldon suffered a severe injury of 0-2.

to have surgery on his and day night. It looks as though will be out for the season.

The Bison led in total offe 298 yards compared to SD That's considerably less t average of 422 yards goine game, but SU's offensive h coach Ross Hjelseth said easy playing away games.

"It's not as easy to win h on the road as people this Hjelseth said. "That's the with most college footba You don't see teams winn wide margin on the road."

SDSU's defense played a in SU's lack of yardage and said it was due to the way lined up.

"We've seen them use six films and it's difficult because of their (defensive he said. "We weren't get field position, but our kids poise and lined up with a lit intensity."

Hjelseth also noted that S physically but the Herd di the right emotional charac to play a good game.

"South Dakota State had emotional effort," he said are a good tough team."

The Bison rushed for 2 which is also lower than the conference game average yards.

"When you look at it, 216 yards if you're running up dle," Hjelseth said. "But if up the middle you're not move the ball very far."

Harris, Willis and Neller the leading ground gainers sides as the three Bison to 89, 69 and 58 yards respect

The Bison have now won secutive North Central Con games. The victory is the straight for the Bison over S it gives the Herd a 5-0 recor year. The Bison are tied place in the conference v thern Colorado as both tes 3-0 NCC records.

Saturday the Bison travel still winless in the NCC with

Spectrum/Tuesday,



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FECTRUM NUKE EXTRA

Clock appears monthly on the cover of "The Bulletim of the Atomic Scienkplores scientific and technological questions affecting the well-being of ninute hand of the clock moves as a measure of the immediacy of the threat ster. The clock has moved 10 times since the founding of the magazine at Id War II. It presently stands at four minutes to midnight, an indication of a m.

Photo by Eric Hylden

This special "Spectrum" supplement deals with aspects of possible nuclear war and the constant build-up of nuclear weapons by world powers. Contained in these pages is a mixture of facts and opinions of writers. Besides contributions by "Spectrum" writers, stories by "Common Cause," denoted by CC, and College Press Service have also been included to give you a complete look at possibly the most important topic confronting our generation.



espondent thinks Soviets eyeing U.S. stockpiles

Strobe Talbott is diplomatic corspondent for Time magazine, and the Time-Life News Service's prinpal specialist on foreign and naonal security affairs. He has writin, edited and contributed to a umber of Hooks. He is the author of adgame: The Inside Story of SALT published in 1979.

"The Soviets look at the whole rocess of arms control very agmatically, very cold-bloodedly, ad they're perfectly capable of oking at it very cynically and slow down the American cruise missile program.

The United States also has always pursued arms control with at least an eye to the propaganda and political benefits as well as a very clear eye on ways of using arms control to stop the Soviets from proceeding with weapons which worry us.

But in addition to making propaganda hay against us and spiking our wheels in any way that they can, the Soviets have some other purposes in arms control which I think are somewhat more benign and more worth encouraging. My own conviction is that they are genuinely worried about the increased danger of war that would accompany an all-out, no-holds-barred escalation in the military rivalry between us. But most fundamentally, the Soviets see arms control as representing their achievement of equality with the United States. Over the past 15 or 20 years, they have been trying harder, like Avis. In terms of nuclear strength, they've established themselves as our coequals, although they still lag behind us in many other respects, of course.

And they see arms control negotiations and agreements as a way of certifying, codifying that equality which they believe they've achieved.

It's precisely on this point that the Reagan administration and the Kremlin are most fundamentally at odds, because we now have a leadership in this country that rejects the idea that equality exists, a leadership that asserts repeatedly, vigorously, from the president on down that the United States is now number two and that we are suffering from across-the-board military inferiority by comparison with the Soviet Union, and that this inferiority is most prominently and dangerously manifest in the whole category of nuclear weaponry. No administration has ever taken this view before. And it's a highly debatable view. Many experts outside the government, including some with some pretty good hawkish credentials, would challenge the notion that we are at a net disadvantage and that we are vulnerable to a preemptive, decapitating Soviet attack, which is a conviction held very strongly within the Reagan administration. But many more experts

challenge the wisdom of our leaders constantly poor-mouthing our military power, advertising to the world that we are number two. Perceptions are terribly, terribly important, and that includes mutual perceptions, which in turn depend very largely on self-perceptions. And it's part of the American dilemma these days that we as a nation have not only talked ourselves into a position of at least self-perceived inferiority, but we've proclaimed our inferiority to the rest of the planet I take some comfort from the thought that perhaps the Soviets, with all of their insecurities and mistrust, do not believe us when we keep saying it. But somewhat more sobering is the thought that perhaps our allies, who must rely on us for their defense, may well be beginning to believe us when we moan and groan about how weak we've become. It's that underlying premise of the administration's approach to arms control that we're inferior and that the Soviets must give up more than we 'do in the negotiations that represents the single biggest obstacle to progress. CC

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anipulatively. They would like to be the process to advance their own ropegands, to make themselves ook like statesmen and ascemakors while they keep us on the defensive and try to make us look ecclicit ant, unreasonable and even

Nor is there any doubt that the oviata want to use arms control to orce us to accept the elimination of r at least evere limitations on cerain types if weapons that represent n American advantage over them. or example, in both sets of negotiaons that are now under way in isnews, the Soviet purpose in the version is largely to stop or at least

Survivors of world's first attack live with ho

By Patricia Theiler

Mitsuo Tomosawa was 15 when the bomb was dropped on Hiroshima. An American, born in Hawaii, Tomosawa was visiting Japan with his mother in keeping with a Japanese-American custom of sending children to Japan for a few years to get a first-hand education about the culture. "After the war started unexpectedly, many of us citizens couldn't return to America."

Tomosawa was 18 when he returned to the United States. Because he had been prohibited in Japan from speaking English during the war, he had to spend about six months re-learning English before he could continue his education.

How has he reconciled the incredibly mixed emotions he must have felt when he became a victim of a bomb dropped by his own country? "Right after the bombing, my mother and I, we were in a state of shock. [But later,] my feeling was not hate or anger or anything like that...But my feeling was more sadness. A profound sadness."

Now an optometrist in Watsonville, Calif., Tomosawa feels that as a survivor of that horror, he has a 'responsibility to carry on the memory and the message of Hiroshima and Nagasaki. "All of us survivors' desires and hopes are to somehow achieve world peace so that the nuclear bomb will never be used again. That's what made me decide to go on and do whatever I can do."

People ask him, "What can I do?" He says, "Many people feel, 'Well, what's the use of calling my congressman? I'm only one single person and he won't do anything'; but I tell them they will make a difference."

In his congressional testimony in March, Tomosawa had a special message for the leaders of the two superpowers. "All I can say to President Reagan and Mr. Brezhnev is that I think God has spared some of us from that holocaust so that we have the opportunity to relate to the people of the world that the things that we are doing are not preserving a peace but just going on the pathway of destruction."

Kimuko Laskey was 16 when the bomb hit Hiroshima. For a year she was very sick from the aftereffects of the bomb. "During those days we didn't have any doctors at all. I am here today because of my mother's care and my sister's help..."

"I couldn't see at all, and I couldn't get up for a year. For a long time I couldn't see anything. The onstationed Japan. They married and in 1954 moved to Canada and settled in Vancouver, British Columbia.

Now Laskey is working to create a network of Hiroshima and Nagasaki survivors who live in Canada, modeled after a similar group established in the United States right after the war. Although she doesn't know how many survivors live in Canada, she has found 15 living in Vancouver.

She's also been speaking to groups, testifying on Capitol Hill and educating people about her experiences. Despite the painful experience of telling people about Hiroshima, and reliving that day that changed the lives of so many people, Laskey and other survivors are speaking out more and more.

Survivors, says Laskey, "want to save people from this experience" and believe ending the arms race is the only way.

Although it happened 37 years ago, the horrible "memories come back just like it was yesterday."

"The other day when I was talking

[to someone], I could see h Vancouver from my windo help myself from thinking, pens if the bomb drops no Every time we have a beau think about it."

Shigeko Sasamori says, came to the United States age 23-ten years after the dropped-"People would to as ask me, 'What happene

Japan To Page 3



Pictured is a B-52B bomber, an older version of the bombers which will be converted for cruise-missile operation at Grand Ford is on static display at Lowry Air Force Base near Denver.

Official says North Dakota boasts tou hand in nuclear weapons world arena

By Andre Stephenson A common North Dakota boast is if the state seceded from the Union, it would be the third greatest nuclear power in the world.

A former Pentagon official now commanding nuclear-tipped missiles at Grand Forks said Monday, he was not at liberty to confirm that claim. But he did admit North Dakota "would be a considerable force to be reckoned with" if it did strike out on its own.

Col. Robert Parker, assistant deputy commander for the 321st Strategic Missile Wing at the Grand Forks Air Force Base, spoke at Concordia College as part of a panel of speakers who outlined the role North Dakota's military operations play in the national defense.

The panel topic, "Mission of Regional Military Activities," was part of the program of the three-day conference on National Security and Nuclear Arms, held Sept. 26 through Third largest nuclear force or not, North Dakota still packs a powerful strategic punch, Parker said, with about 300 intercontinental nuclear missiles and about 50 long-range bombers. These weapons are evenly divided between the Air Force bases at Grand Forks and Minot, with a bomber group and a missile wing operating out of each base, Parker said.

prime target for enemy attack, though Fargo, without any nuclear weapons, is not likely to suffer a direct hit, Parker said.

However, Fargo probably wouldn't be able to escape the radioactive fallout from attacks on Minot and points farther west, said Parker, a 19-year veteran of the Air Force.

In the event of an enemy attack, U.S. military forces could detect and track the incoming missiles, but wouldn't be able to intercept and destroy them before they were detonated, Parker said.

The country's sole anti-ballistic missile facility at Nekoma, N.D., was shut down shortly after it opened. Parker said he believes it was not only for financial reasons, but also because of technical shortcomings. North Dakota's other major military operation is the Air National Guard, headquartered at Fargo's Hector Field, where training missions are flown six days a week. Lt. Col. Robert Carlson, director of operational plans for the NDANG, said his 119th Fighter Interceptor Group is part of the North American Air Defense Command (NORAD)-a oint U.S.-Canadian effort to protect the airspace over the to countries. The North Dakota squadron's job is to check out, escort or destroy unknown or enemy aircraft that NORAD's radar detects over this region's airspace.

tween Jamestown and Devi Carlson said.

A target aircraft is sim the radar and one of the so F-4 fighter jets is directed the plane and instructed make visual contact or fire aircraft's weapons, said () Fargo native and SU gradus

To be able to meet the m "scramble" order from headquarters, the Guard is planes on 5-minute alert stat times, he said.

The strategic weapons in North Dakota are part nation's triad defense, Part Minuteman III missiles bombers and submarine-bas continental ballistic missiles three legs of this triad.

With three means of military planners hope at would remain effective if the were incapacitated by a weapon, Parker said. Also, spreads the defense resourd Soviets thinner as they prepare to defend agains means of attack, he said. While such weapons were ed for attack, their other im deterrence, he said, as the knows that any attack by be met with an equal respon the United States. But such capabilities me Parker added, without the element of deterrence, which willingness of the people to weapons they have put intol Spectrum Sup

ly thing I could see was an orange flame."

After a year her condition improved. To help pay, for the plastic surgery she needed, she worked in a hospital in Hiroshima. She's had at least five operations-the last about seven years ago. Eventually her eyesight improved.

In the weeks after the bomb, Laskey said she felt like her "whole life was destroyed. I didn't have any dream of the future." "Because of the way I looked" after bomb, she didn't think she would get married. But in 1951, six years after the bomb was dropped, she met her future husband, a Canadian serviceman

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This concentration of offensive weapons makes North Dakota a Simulated missions are practiced in an area northwest of Fargo be-

From Page 2

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said, 'No, I was one ccident?" s of the bomb at heir response was, I'm sorry.' but now people have ther reaction, a better reaction. after I tell them about the mb, people say to me, 'Even so, you in this country and are helping about the dangers of thear war.' It's a good reaction suse it shows people realize that is not a long time ago, but. happen here." ame to the United

be, could lergo more than 35 injuries caused by the s one of 26 Hiroshima ht to the U.S. for ment by a special ject funded through ons.

> after conversations e met in this country, ted to take on the role about the horrors of As more people asked experience and as she 's stockpile of nuclear asing, she saw the imminding people of the

reason why I lived-I the people who died hic bomb-and not just nic bomb, [who] died their spirits are telling people who never have var...that I have a misshow what happened. y I live."

-time practical nurse wborn babies in a Los pital, Sasamori says rar is not solely the of political leaders. dual has to help" end ce. "But many people it. When they see me, when I tell them my they begin to try to e, but actually they do w much danger there is hey just don't seem to

Founder/director of Ground Zero sets stage for possible future

Roger Molander is founder and executive director of Ground Zero, a Washington, D.C. based, nonpartisan educational project on nuclear war. He served on the staff of the National Security Council under Presidents Nixon, Ford and Carter from 1974 to January 1981. While there, Molander was chairman of the interagency working group that prepared background material for the SALT II treaty negotiations.

Theo Brown is deputy director of Ground Zero.

By Roger Molander and Theo Brown The inescapable reality of our time is the fact that the threat of nuclear war is never far from us.

Nuclear war could conceivably happen tomorrow-even today. With all the political "hot spots" in the world today, daily newspaper headlines would not have to change all that much to make the possibility of a nuclear war seem close. Even, slight changes in any one of several current world crisis situations could bring the superpowers into direct conflict and create the risk of a nuclear holocaust.

Since the Nuclear Age began. there have been many crises involving the United States and the Soviet Union. Most have been settled through careful diplomacy and without bloodshed.

Unfortunately, we have no guarantee that this will always be the case. There is a real danger that either country could, in the volatile world of international politics, stumble badly, and be confronted with a desperate, no-win situation.

With its back against the wall, the U.S. or the Soviet Union could be tempted to use a nuclear weaponperhaps a small one at first-rather than accept a major loss of resources, troops or international power and prestige.

Bronx Jersey **Union City** New Yor Cit Brooktyn Island Miles

ton bomb were burst over New York City on a weekday, 2 million people d be killed outright and another 3.4 million would be critically injured. Many would die within a few days. This map gives an indication of some of the ad-e that would result: * marks ground zero, where the bomb would hit. In circle d concrete buildings would be destroyed. In circle two, masonry buildings royed. In circle three, houses would be destroyed. In circle four, there would is fires. In circle five, survivors would suffer third-degree burns. CC

And, once the first nuclear weapon is used, who knows what would follow? We simply have no precedent to help us guess how world leaders would act once the barrier between conventional and nuclear weapons had been crossed.

But, while no one in our government knows for sure what would happen if war with the Soviet Union broke out, over the past three decades, defense strategists have spent a lot of, time playing hypothetical "war games' weighting all the variables that might lead to a nuclear exchange and developing detailed scenarios of the ways in which such a conflict might take place.

Most of them fall into six basic types of scenarios. Each of these provides a chilling glimpse of how the end might begin.

1. A Bolt from the Blue-One superpower decides that sooner or later war with the other is inevitable and that it should therefore attack first with a massive preemptive strike, even though there is no crisis situation at the time. Such a decision would have to be motivated by the belief that a first strike would make it impossible for the other side to retaliate.

2. Escalation in a European Conflict-During the first 20 years of the Nuclear Age, defense strategists considered this type of scenario the most probable: NATO forces engaged in a war with the Soviet Union and the Warsaw Pact countries find themselves forced to use small "tactical" nuclear weapons to stop the enemy's advance. Most battlefield troops in Europe are already equipped with tactical nuclear weapons, and there are many ways such a conflict could escalate to all-out nuclear war. In fact, fear of such a conflict in Western Europe has traditionally been cited as a reason why the U.S. has refused to pledge not to be the first to use nuclear weapons.

Escalation in a Third World Conflict-These kinds of scenarios are mentioned more frequently in recent years due in part to the growing threat of nuclear proliferation. Six nations acknowledge a nuclear capability-the U.S., the Soviet Union, Great Britain, France, China and India. Many experts believe that Israel and South Africa have or are close to having nuclear weaons. Many also predict that other countries, including Argentina, Iraq. Libya and Pakistan, will have the bomb by the end of the decade.

Furthermore, a Third World conflict could easily lead to a confrontation between the superpowers because of the ideological competition between the U.S. and the Soviet Union for the "hearts and minds" of these nations-not to mention their crucial oil and mineral reserves. Third World countries in key geographic locations are also much prized by the superpowers as stretegic footholds in the event of international conflicts.

In one type of Third World scenario, the U.S. and the Soviet Union are drawn into a conventional war in a Third World "hot spot" which gradually escalates until nuclear weapons are used. In another, a Third World country that

has obtained nuclear weapons starts a regional nuclear war that turns into a global nuclear war.

4. Escalation After a False Alarm-There have been at least three times during the past few years when U.S. computers mistakenly indicated that a Soviet attack was underway. In one frightening instance, a practice tape that was used to simulate a Soviet attack was inadvertently left in a computer. It was several minutes before officials verified that an actual Soviet attack was not underway.

It's possible that some day a similar situation could occur either here or in the Soviet Union and the error is not found in time. If that happened, what was meant to be a retaliatory strike would, in fact, be a first strike that could touch off a fullscale nuclear war.

The chances of this happening are greatly increased if either country adopts a "launch on warning" policy-that is, requires that its missiles be launched as soon as it is notified by early warning systems that an attack is underway. Current policy both here and (it is believed) in the Soviet Union requires that missiles not be launched until the actual effects of an attack are known.

Escalation After[®] Accidental or Unauthorized Use of Nuclear Weapons-Although both superpowers have elaborate safeguards against accidental or unauthorized use of nuclear weapons, it's still possible for such launches to occur. No system of communications is totally foolproof, and in a crisis situation it is possible that orders could be misunderstood.

6. Escalation After Terrorist Use of Nuclear Weapons-The continuing spread of nuclear technology to more and more countries, and an increase in the world supply of plutonium-an essential ingredient in nuclear weapons-makes it increasingly likely that a terrorist group could someday obtain a rudimentary nuclear device, possibly with the help of a sympathetic country. If such a bomb were used, it might not be clear that it was an isolated act of terrorism, and could trigger some sort of nuclear retaliation in the ensuing chaos.

While experts and government officials disagree about which kind of scenario is most likely, most believe at this time that a "bolt from the blue" is highly unlikely, and that a nuclear war would most probably result from the escalation of a conventional war.

Because of the approximate balance that exists between the U.S. and the Soviet Union's strategic forces, it's more likely that nuclear weapons would be used in a crisis in which a superpower felt desperate rather than in a premeditated attack, which would invite certain retaliation.

And because the Soviet Union has more land-based nuclear weapons than the U.S. has (75 percent as compared to less than 30 percent), some military analysts believe the Soviets are very concerned about the vulnerability of their weapons

What If To Page 4

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Bombs are bombs no matter where you live

Those who support a nuclear weapons freeze need not search far for concrete reminders of the massive destructive powers that can be tapped from nuclear weapons.

Over wide areas of the United States, intercontinental ballistic missiles, Navy submarine ports and long-range bombers stand ready to respond for a nuclear war.

Many of those weapons are located in North Dakota.

The exact number is a secret, but the United States posesses from 20,000 to 50,000 nuclear devices in many different forms, some atop missiles and others designed to be shot from a cannon.

Scattered along U.S. Highway 2 between Grand Forks and Minot, some 300 Minuteman II and III missiles are poised skyward, ready for an electrical impulse to fire them towards Kiev, Vladivostock or Moscow.

Nearly one-third of the nation's ICBM force are hidden from view, buried in underground silos hardened with steel and concrete.

At the surface a small chain-link fence and a few wooden lightpoles give the only indication of the deadly power buried below.

With the advent of spy satellites not long before the silos were even completed, the secrecy of those underground sites was compromised.

One way to correct such a disadvantage is to try and hide the weapons from a potential adversary. The Air Force base at Grand Forks is presently engaged in such a project.

One of the new, smaller weapons developed in recent years, the airlaunched cruise missile, is being added to the inventory of weapons in Grand Forks.

The small missiles are launched from a B-52 bomber, fly above the terrain and underneath conventional radar coverage, to reach their targets without risk to aircraft or Crew.

A changeover from gravity bombs to the cruise missile is taking place with work scheduled to continue until the summer of 1983.

Another weapon that might be introduced to the state is the MX missile.

Pentagon officials are still considering a plan to fit the heavier ICBM into reworked Minuteman and Titan silos and N.D. sites are being considered.

Nuclear warheads are also found in the warheads of some air-to-air missiles, launched by interceptors to shoot down an enemy's aircraft.

Both of the two fighter-interceptor

By David Somdahl Wisconsin voted 3-to-1 in favor of a freeze.

> The weapons also pose a special danger because of widespread radiation leaks that could accompany a malfunction.

> The Defense Nuclear Agency, a branch of the Defense Department, is responsible for developing plans to isolate and neutralize nuclear weaons in the event of an accident. "Broken Arrow" is a miliary code

phrase used to denote the occurrance of such an accident.

The United States has had more than 40 such incidents since the first mushroom cloud billowed up at Hiroshima, Japan, near the end of World War II.

One such "Broken Arrow" happened at the Grand Forks air base two years ago when a malfunction-

What If From Page 3

systems. (Land-based weapons are not mobile the way weapons on submarines and bombers are.) In times of extreme international tension, this sense of vulnerability could tempt the Soviets to strike first, a theory dubbed the "use it, or lose it" mentality.

The first nuclear attack in an allout war would most likely be aimed at military rather than civilian targets. But even an attack on military targets could leave 2 to 10 million people dead, and such an attack could easily lead to retaliation on civilian targets killing up to 100 million in one nation alone.

How, exactly, could the superpowers reach such a point? It's hard to imagine, in the abstract, how any rational world leader could willingly inflict destruction of this magnitude on another country, or willingly risk such destruction at home.

But then, most of the world's wars have not, historically, been particularly rational. How many people who read the newspaper accounts of the recent war in the Falkland Islands, for example, came away with the sense that it could easily have been bad fiction?

An infinite number of factors can help make a small conflict rage out of control: inept diplomacy, a tactical military blunder, a fragile government's fear of internal dissent, concern over "losing face"

What follows is a scenario spelling out one way that a nuclear confrontation between the superpowers might begin. While the scenario is in no way intended as a prediction of the future, many of the conditions in the situation outlined below have been present several times since the end of World War II, and could easily recur. In addition, Central Intelligence Agency reports have predicted that the Soviet Union, which has traditionally been an exporter of oil, will, within a few years be forced to seek oil outside its borders. If this prediction is true, a scenario such as the one that follows is not implausible.

ing fuel pump caught fire abroad a B-52 loaded with nuclear weapons.

The fire spread beyond the point of ignition and base officials were concerned the weapons might be damaged.

Two weeks after the Grand Forks fire, a workman dropped a wrench into a Titan II missile silo near Damascus, Ark., that blew up that missile and killed one man.

Others have been injured as a result of weapons malfunctions but Defense Department policy is to acknowledge basic information about an incident without revealing any details.

It will neither acknowedge nor deny the presence of nuclear weapons at any location, even at areas known to be involved with nuclear activities.

Other areas of the vulnerable because of numbers of nuclear wear port activities associated devices.

One example is Der where Rockwell Internat operates the Rocky F complex.

It's at this location that tion's plutonium is substance so deadly that tions of as low as on million can be fatal.

The deterrence value weapons, weighed again of such a destructive po ing examined by America political, economic backgrounds.

That's one reason why ple are calling for "no me

Iraq counteroffensive inflicts heavy casualities on Iranian forces, open civil war breaks out within Iran. Within days, the Islamic government is toppled and a leftist coalition takes control of the country. The new government pulls back from fighting in Iraq to consolidate its position at home. It also accepts an offer of assistance from the Soviet Union.

*Soviet military and civilian "advisors" arrive in Tehran. The U.S. immediately issues a strong warning that Soviet presence in Iran is "unacceptable" and puts its Rapid Deployment Force on alert for possible action in the Persian Gulf.

*The Soviet Union begins sending troops south to Tehran. The U.S. issues a stern warning that it will take "whatever steps necessary" to prevent Iran from becoming 'another Soviet satellite." Additional U.S. naval forces are ordered to the Persian Gulf.

*The Soviets respond that they are in Iran at the request of the Iranian government and proceed with plans to send troops to Tehran. Some of these troops are discovered heading towards the oil fields in southwest Iran, and other strategic points throughout the country.

*Against a backdrop of heightening tension between the two superpowers, four Soviet MiG fighters encounter six American F-15s. An aerial "dogfight" breaks out: All four Soviet planes and one American plane are shot down. Both sides bitterly accuse the other of firing the shot. The Soviets promise first retaliation.

The U.N. General Assembly passes a resolution calling on both superpowers to cease hostilities. Another resolution calls for Soviet withdrawal from Iran, but a third resolution to impose strict economic sanctions against the Soviet Union is narrowly defeated. *Two days later, Soviet Backfire bombers sink one U.S. ship and seriously damage two others, which they claim were preparing to land some of the Rapid Deployment Force on the Iranian coast. More than 150 American servicemen are killed, and the American public is outraged. The U.S. expels Soviet diplomats and orders its own diplomats in the Soviet Union to come home.

ultimatum: If the Soviet to withdraw from Iran week, it will face the "he sequences of provoking the United States. Sovie issue a terse reply that the were started by the U.S., again that the Soviets and the bidding of the themselves.

At the initiation of We pean leaders, the su engage in secret talks avoiding escalation of The talks fail to produce ment before the U.S. deadline expires.

*The U.S. conducts bon on Soviet supply lines, usi tional weapons. Soviet a inflict heavy casualties, a big losses, Soviet troops m solidate their hold on ma and oil fields. The secret down entirely. Tension mo U.S., the Soviet Union and Europe as the fighting int

*The president orders small, battlefield-scale nuclear weapons, which a ed from U.S. ships in the Gulf, to stop Soviet supply the Iranian oil fields. serious and widespread. T retaliate with attacks on ships in the gulf, using nu ed cruise missiles and bombers. Several U.S. destroyed and thouse American troops are killed

*U.S. officials make publi about the possibility of aimed at targets within # Union itself. Press accou speculation about a majore of the war. Signs of panics the U.S., Western Europe Soviet Union, as the public? the conflict is out of contri *In the U.S. a news leaf National Security Council ed certain key government and their families " Washington sparks a spa exodus from many of the major cities.

squadrons in the state are capable of launching the nuclear-tipped missiles.

One is the state's Air National Guard unit, the Happy Hooligans, based at Hector Field.

The other unit is located at the Minot air base.

The presence of nuclear weapons in the state has compelled some citizens to circulate petitions for a nuclear weapons freeze.

The question will appear on the general election ballot this November.

Nuclear freeze referendums have appeared in other communities this fall and in September, voters in

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Scenario:

As sporadic warring between Iran and Iraq continues and economic conditions within Iran worsen, leftist opposition to the fundamentalist Islamic regime is joined by other factions disenchanted by increased political repression and increased economic hardship. After a surprise

*The president, in a televised address to the nation, announces an

*Fearing a U.S. attack nent, the Soviet Union begin ficial evacuation of its maj areas.

*The Soviet Union launch strike against the U.S. weapons systems and other targets. Minutes after the U.S. leaders respond ...

Spectrum Sup



area one of N.D. targets if bombs fall

By Rick Olson What would happen if, God forbid. e F-M area was the victim of a science attack? The questions conming civil defense, survival planng and other related topics were cussed Sept. 28 at Concordia Col-

Experts lieve if the F-M area re the target of a direct hit, about percent of the population would

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The panel discussion, "Civil fense-Planning for Survival'' was unction with the Conance on National Security and s, held Sept. 26 through tson Center Centrum at

Moderator of the panel was Dr. H. emistry professor.

Members of the panel included ple from both North Dakota and nnesola. These persons were: nning, mayor of m Grondahl, director of mergency services; and supervisor of planning, mergency services for ay county byd Lund, a state of /linnesota.

Also on the panel were Jon Linden, mayor of Fargo and associate stor of pusiness administration SU, and Ron Affeldt, director of e North Dakota emergency sers department in Bismarck.

"For those of us who have been rough the conference, we have ot of different perspecear arms and national mann said. "This afterking a new tack, which y been dealt with." according to Hom

the almost unthinkable event of a ange.

there would be surors from such an exchange," he

One major question to be swered was how the survivors om a nuclear attack would be indled? ____mann asks what provions, if any, have been made to acmmodate the survivors of such a clear exchange.

"We all realize there are 30 nutes warning from the launch of ICBM to impact," he said. "If ere talking about an all-out nuclear exchange between the United States and the Soviet Union, preparation for all types of emergenthere will not be much time for civil defense of any kind.'

'There are many other scenarios that one could imagine, at least hypothetically, in which disaster emergency planning could be a very great benefit for people in this coun-

try. "I think, for example, of not only for a limited nuclear exchange, in which single weapons might be exchanged or perhaps a longer-term step up towards exchange," Homann said.

Homann says if we had hours. days or even weeks of warning before such an exchange were to take place, it would still take time.

"Several members of the panel have reminded me that there is a fair amount of nuclear material moved through the highways of the two states and there are nuclear materials associated with the various missile command bases.'

Homann feels it is very necessary for our well-being to be able to handle any emergencies that may arise from radioactive materials.

"The fact that we're a border city, Fargo-Moorhead, means we have to take into account the planning coming not only from the national level. but from two different states as well." Homann said.

The discussion then moved to Affeldt. His remarks centered on North Dakota's preparedness for a nuclear emergency and related areas of concern.

discussing civil defense and the survived," Affeldt added. lenning f r survival." Affeldt said

He said people hear many definitions about civil defense and what it **i**8

'Some people say civil defense is purely nuclear-type occurrences.'

Homann's office has always looked at civil defense in two ways: nuclear preparedness at all levels of government, federal, state, county and local under emergency conditions.

"We've also looked at the citizens, in general, under emergency conditions," Affeldt added. "They all have a particular responsibility as far as survival is concerned."

Affeldt's agency is responsible for cies under state law, "including a nuclear attack on this country and upon the state which I represent (North Dakota).

Affeldt and his agency has to take into account all information about an emergency and come up with a realistically workable plan.

"North Dakota is considered as, what is called, a counterforce area," Affeldt said. "We did not designate these areas, the Department of Defense did."

The two big areas that have been declared counterforce areas, according to Affeldt, are the areas surrounding Minot and Grand Forks Air Force Bases. Also, the area surrounding the immediate F-M metropolitan area.

"The reason Fargo-Moorhead was designated as a target area is because of a certain amount of population," he said.

Three areas of concern are looked at with regard to nuclear preparedness by Affeldt's agency. These are making sure operational plans are in place and responding to a nuclear attack, meaning to organize government to repsond to the needs of survivors.

"There will be survivors," Affeldt said. "As far as survivors are concerned, they will never, in my estimation, have as difficult a time as when they were pioneering this country."

He said it is a comparison. "The pioneers didn't have all the "Our task this afternoon is resources we have today, but they

Affeldt feels if we are to then government must be in place to deal with the emergency. He said legislation is in place for the government to keep operating in any way possible during a nuclear emergen-Cy.

He feels it is necessary to have facilities available and it must be assured that trained personnel are in place to deal with the emergency.

'Each of the 53 counties in North Dakota has an in-place plan." That means a plan to deal with an unannounced nuclear attack.

The plan includes properly infor-

ming the population of the country and making sure facilities are in place-good places for people to protect themselves from the nuclear fallout and overpressures.

"All these buildings are being inspected day-by-day to ensure some sort of survival," Affeldt added.

In the event of a nuclear attack, "We may lose 50 percent of our population," he said. "But 50 percent will survive." That is with just a minimal amount of information.

According to Affeldt, there is no way you can protect the population if they are at or near what is called "ground zero," the point of a direct. hit by a nuclear device.

'There's no planning that could do that," Affeldt remarked. "We could build blast shelters forever and we still could not protect the people from a direct hit."

Affeldt says there are plans in which the people in the "target areas" could be mass-evacuated to other areas if it became evident a nuclear exchange was going to take place.

He remarked the entire F-M area could be evacuated in as little as 36 hours. Experts believe that is not enough time since there can sometimes be as little as 30 minutes warning before an attack.

'If you perceive a threat, we have plans to move you to other areas," Affeldt said. These areas are known as host areas.

Plans are in place, according to Affeldt, to move those persons who want to move to other areas in North Dakota, which are away from the target areas or counterforce areas.

Now, we're not going to provide you with a room at the Holiday Inn, but we're going to provide you with some sort of survival," Affeldt said, "to protect you against the direct effects of a nuclear weapon."

Lanning's, Lindgren's, Grondahl's and Lund's remarks surrounded the general questions of nuclear preparedness. Lindgren feels somewhat uneasy about the plans being discussed and those that are in place.

Lund said the plans on the Minnesota side are guite similar to that of North Dakota's.

Official says United States is not inferior in arms race at local talk

By Andre Stephenson Contrary to claims from the Pentagon and the Reagan administration, the United States is not militarily inferior to the Soviet Union in the ability to wage nuclear war, an economic and political analyst said Tuesday.

The nuclear superiority of the Soviet Union was one of several myths debunked by Dr. Gordon Adams, senior research associate for the Council on Economic Priorities in New York. His speech at Concordia College capped off three days of presentations, panel discussions and films at the Conference on National Security and Nuclear Arms.

"I do not consider the U.S. position an inferior position. At worst, it's parity," Adams said. He advocates a freeze on further nuclear weapon deployment, followed by steps to reduce the strategic arsenals of the United States and the Soviet Union.

In attempting to determine which country has superiority, four characteristics of each country's respective nuclear arsenals are commonly evaluated, he said. they include the number of missiles each side has, how powerful the warheads are-what Adams called "throw weight"-the accuracy of the missiles and the number of warheads.

The Soviet Union leads in the number of missiles and "throw weight," he said. While the United States has better accuracy in its missiles, and multiple-warhead targeting systems.

The United States leads in the number of warheads, with about 12,000, compared to the Soviets' 8,000.

Evaluating these four categories as a whole, Adams gives a slight edge to the United States, because though the Soviets have heavier warheads, the superior accuracy of American missiles makes the lighter U.S. warheads just as effective.

"The margin of superiority clearly does not rest with the Soviet Union," he said.

Adams also disputed the claim that America's forces are too vulnerable to a first strike as they sit out in North Dakota's wheat fields. This claim often brings calls to put the new MX missile on rails, trucks or airplanes rather than in underground concrete silos.

But the Soviet defenses are actually more vulnerable, Adams contended, because U.S. forces are divided into a triad of long-range bombers, land-based intercontinental missiles and submarine-based missiles.

dollars, Adams said.

On the other hand, the United States has not allowed its strategic force to languish, he said.

"Every part of the defense triad has been upgraded in the past decade."

This upgrading of the strategic force is accelerating, Adams said, as weapon outlays comprise the fastest-growing portion of the defense budget.

In addition, the defense budget as a whole is the fastest-growing component of the federal budget, consuming 55 cents of each tax dollar, he said.

For fiscal 1983, which started Oct. 1, the defense budget totals \$260 billion, while the administration is requesting \$1.6 trillion over the next five years, according to Adams.

This amounts to \$3,200 for each American household this year, and \$20,000 per household over the fiveyear period, he said.

While the administration thinks such spending can restore America's military might as it also pulls the economy out of its threeyear slump, in reality, the military buildup will only "shoot their economic recovery plan in the foot," Adams said.

Renewed inflation is likely as defense contractors bid up the cost of machinery, materials and labor in their effort to build the new weapons ordered.

This will result in cost overruns which the taxpayers will be forced to pay and higher costs to the manufacturers of consumer goods, which taxpayers will also bear as inflation heats up, Adams said:

Unemployment rates are also not significantly affected by increased military spending as aerospace workers already enjoy a high level of employment.

Contracts to build sophisticated electronic-laden missiles and airplanes in the Sunbelt do little to help the masses of unemployed, who are primarily young, unskilled and a member of minority group, living in the inner city, Adams pointed out.

The military is also experimenting with designing and manufacturing planes using computers and robots, which also does little to increase employment, he said.

In addition, massive defense spending hinders the ability of the private sector to raise capital to improve productivity and create jobs, because high federal deficits are keeping interest rates high, the researcher and author, Adams said.

Adams believes if the current pace of nuclear weapons development is allowed to continue, "The next stage of the arms race will be far more dangerous than anything we've seen."

That's because the additional weapons, instead of buying more security, actually have a destabilizing effect on the delicate balance which keeps the United States and Soviet Union from throwing their missiles at each other, he said.

The increasing accuracy, speed and sophistication of the newest weapons increase the likelihood of destruction and, consequently, the



This sign warns people enta building for storing radioactive Photos

anxiety levels of milita political leaders in both co

As an example, the plan ment of Pershing missiles in Europe reduces the time to U.S. missile to Russia minutes to six minutes, Ad

This reduces the time the have to evaluate radar in and check with Washington a nuclear attack has indulaunched.

The result, Adams said "war by computer," whe puters will automatically counterattack in respons perceived threat, regard whether that threat is real

Former SALT chief negotiator offers opinions on Reagan administration

Paul C. Warnke is a partner in the Washington law firm of Clifford and Warnke. He previously was chief Strategic Arms Limitation Talks (SALT) negotiator, director of the U.S. Arms Control and Disarmament Agency (1977-78), and assistant secretary of defense for international security affairs (1967-69).

"I'm not really sure I would agree with Les Gelb that the administration's statements that the Soviets have a definite margin of superiority or that they're greatly concerned about verification are really statements of principle. Instead, I think what they bespeak is an attitude of hostility towards arms control. And what they're doing is searching for excuses to pursue a policy of all-out confrontation, which is the this shows is a dissatisfaction with any strategic nuclear balance in which we do not have that definite margin of superiority. They're after that definite advantage; they're after that ultimate weapon that enables us to dictate the terms of the Soviet Union's surrender. In other words, we have to have a nuclearwar-winning capability.

Now obviously that's incompatible with arms control, and therefore arms control is, as far as they're concerned, a readily available sacrificial lamb, and they're happy to see it bleed and die.

And I think the idea now that we should back away from the limit on testing negotiated under two Republican presidents, in the name of verification, reflects what I think is the inherent unvielding hostility toward nuclear arms control that comes from idealogues within the administration who want nothing else than an all-out confrontation with the Soviet Union, even though that risks the nuclear exchange. I think that this is an extraordinarily dangerous situation. I can't be very hopeful that anything good is going to happen during the next two-and-ahalf years. What I think can be done is to see to it that nothing irredeemably bad does happen, that we somehow preserve that which now exists by making it very clear that this is a political issue about with American public feels very Whatever else you can say who lead the present adminithey have proven themselve successful. Politicians don' successful, as a matter of don't remain politicians, if nore the voice of their const and I think we have to heard.

They're serious about it they recognize that their survival is at stake. I don't limited nuclear war is poss if it were possible, we could it and they couldn't. There such thing as a limited nuc that would be so limited as the Soviet system in place.

I'd like to think that if Wa

Only one-third of our strategic weapons are land-based missiles, while 75 percent of the Soviet nuclear arsenal is composed of iCBMs, he said.

It is also not true, Adams said, that the Soviets have been pouring billions of more dollars into defense while the United States has let its military spending stagnate.

Claims that the Soviet Union has outspent the United States by \$300 million to \$400 million a year throughout the 1970s are not valid because CIA estimates of Soviet defense spending cannot be accurately converted from rubles to

6

policy which ideologically they prefer.

I can't really believe that anyone who has studied the subject can believe that the Soviets have a definite margin of superiority when it comes to strategic nuclear weapons. I know of no military leader who is still in possession of his marbles who would switch the U.S. forces for those of the Soviets. And, in fact, responsible American spokesmen, such as the former chairman of the Joint Chiefs of Staff, David Jones, are on record as saying that they prefer our forces.

So then, I think that really what

disappeared, the rest of the might be at least marginal ful. And I do know that have a country. And if disappeared, I think t Kremlin, the leadership, is sure that they'd still have a And certainly, the centrifug that threaten the Soviet Uni present time would be suff my opinion, to shatter it. So look at it just from the stan selfish, national interest. T terested in nuclear arms because they should be. B would be irrational for the be.

Retired admiral answers arms questions

wing interview, retired I Gayler answers some lex and puzzling questly asked about nuclear He concludes that now r the United States and Union to negotiate

is reduction treaties. former commander in ed States forces in the 76) and former director onal Security Agency is also the former depuof the Strategic Target ff of the Joint Chiefs.

s interviewed by "Com-" magazine editor raves and associate

a Theiler. ally worried about the a nuclear war?

ak it's reason for grave I don't think it's likely, but it certainly is not impossible. There are very protical ways to cut back on the you ibility of nuclear war, velt certainly and we should lose no time adopting

What are some of those ways? The first thing I think we have to be to stop trying to convince the relate and get the Soviets to stop vine to convince us that we or they ally might contemplate nuclear or under some circumstances. We f both that they do not contemplate aclour war under any cir-A statement like that would be very important. I also think e should but an end to the inetween the United States user the United States and the

I have two observations about that argument, which you often hear. One is that it betrays a complete orstanding of the nature of nuclear weapons, and, as a mat-ter of fact, of the nature of war.

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ression about keeping s in line-well, to risk ucless war in any way in order to hings as the integrity of Europe, for manufacture just a complete confued without resort to pons. This is not a statetter Red than dead." It's that we need be neither ad. Furthermore, I think t's a very dangerous doctrine to Russians uncertain. constant if we do, the Russians are being to keep the Americans uncer-tain. Neither one of our societies indensionals the other very well. I've d at the misperceptions hat professional Russian observers ave about the United States. And I me is probably true of lerstanding of Russia. So hat we're going to keep r guessing is an extraorinarily ingerous idea, because y might guess the wrong thing. ht believe we were going to and feel the need to im us first.

Reagan says that we tinue the arms buildup e have a "window of y." Do you agree?

sking the nuclear forces as a re is no "window of y." There's no window of because there's no when it comes to our aber forces and our submarine

forces (which could not be easily destroyed). And it's quite dubious, I think, that even the fixed land-based missiles are as much at risk as people suggest. It would be suicide for the Russians to attempt to use a preemptive strike.

I don't think that the Russians are ahead of us. We have more of some things; they have more of others. I think it's interesting that if you ask senior military people in office if they would trade our own armed forces for the Russians', they would decline to do so.

The important thing to remember is that we now both have thousands of nuclear weapons, so there's nothing realistic even about the idea of being ahead or behind, for example, when he's got 6,000 and you've got 9,000 and it takes only 400 megatons to destroy a country. In point of fact, it makes more difference what the targeting policy is; it makes more difference what the fusing policy is, whether they choose to blow up at ground level and create fallout. It even makes more difference which way the wind is blowing, carrying fallout on a given day, than an extra thousand missiles on either side.

Then why do we continue to hear that the United States is behind?

You're in the public affairs business. You tell me why people can't see simple truths. The idea of strategic nuclear superiority and inferiority at these force levels simply has no meaning.

What is the mutual assured destruction (MAD) theory? Does it have any relevance?

It sure does. Mutual assured destruction is the idea that neither side will dare start a nuclear war because it knows that if it does, it will get it in return. That requires that a sufficient amount of the nuclear forces on on either side be relatively or totally invulnerable to a first strike from the other side. We're both in that position now, and as far as I can see we will be indefinitely. The attempt to attain nuclear superiority is an illusion. There is no such thing.

Is a first strike capability important?

A first strike capability is an illusion. It's generally used to refer to the idea that an adversary will strike the nuclear forces of the other country and keep it from attacking back. The fact is that it's impossible. First, it's impossible because the submarine forces of either side can't be effectively attacked. Second, it's impossible because not all of the bomber forces of either side can be effectively attacked. But this illusion is extremenly dangerous.

Many people are worried about negotiating with the Russians because they feel we just can't trust the Russians. That seems to be a major concern of many Americans.

Let's see why. Because the Russians might cheat? All right, what if they cheated? Suppose they cheated by a thousand weapons. It wouldn't make any difference, but we would be very likely to know it. If they cheated to 10,000 weapons, we would be certain to know it.

Isn't it important to have nuclear weapons as a deterrent against other war?

I can't prove it, but in my opinion,

it's certainly not true that nuclear arms have prevented war. As a matter of fact, we've had major wars all over the place and are continuing to have them right now. There has not been war in Central Europe, in my judgment, because the U.S.S.R. has correctly estimated that the potential gains are not worth the risk.

But you could still argue that nuclear weapons have served as a deterrent in Europe, for example.

I understand the argument. I'm telling you that I don't think it has any validity because nuclear weapons can't be used by us in any sensible way, and they can't be used by the Russians in any sensible way.

But since they can't be used in a sensible way, doesn't that mean they've served as a deterrent?

They don't serve as a deterrent to conventional war and they haven't. We remember Korea and Vietnam. there's a conventional war going on in Lebanon, Iran, Iraq. There's a conventional war still going on in Afghanistan. We just finished one in the Falklands. What good did their nuclear weapons do the British there? They did not prevent the U.S.S.R. from taking over Czechoslovakia by armed force, from abolishing the Baltic states, Latvia, Lithuania, Estonia, doing all of those things.

How do you think a nuclear war might start? Would it most likely be an accident?

I don't think an accident is as likely as a misguided attempt to use nuclear weapons in some limited way, with the exchanges escalating to a total nuclear exchange. I think that's the most dangerous possibility. Another quite dangerous possibility is the temptation to use nuclear weapons by some third country, perhaps in the Middle East. There are some pretty unstable figures out there. And we could be drawn into it.

For example, if there's a nuclear explosion in Leningrad, you could understand how the Russians might think we did it, but we might have had nothing to do with it.

I don't think the deliberate massive attack by Russia against the United States is something to worry about very much because I think it would be insane on their part. But these other things are things to worry about. And unfortunately, neither we nor the Russians have much credibility in inducing other countries to forego nuclear weapons because we're not foregoing them ourselves. In fact, we're not even doing anything very serious about reducing them.

We keep hearing talk about "a limited nuclear war." Is such a thing possible today? We had one in Nagasaki and Hiroshima, of course.

That was because there was only one nuclear power. Now there are two major nuclear powers, and a number of others. And the two major nuclear powers have roughly equivalent forces. It's a totally different situation.

The reason I don't think there could be a limited nuclear war is because any nuclear initiative will have a reply. And the reply will be bigger than the initiative. That's the way doctrine is on both sides, and that's the way people are. And so it's only a question of how many steps up

the ladder of escalation before you have the total holocaust.

What do you think about civil defense plans?

I think that civil defense for the purpose of disaster relief in the case of earthquake, flood, fires and so forth is a very valuable thing, but I think that the proposed civil defense program which is directed toward allegedly reducing the impact of nuclear war is totally impractical and will not work. It is bad because it tends to create the illusion that somehow or other nuclear war isn't so bad. That illusion is a very dangerous thing.

Do you think it's possible we could survive a nuclear war?

It depends on what you mean by 'survive." I think that depending on a lot of things, that some Americans might still be living after a nuclear exchange if they live in some place well away from targets and they don't get caught in the heaviest of the fallout. But I don't think that either the United States or Russia would survive as a civilization, and I don't think that those who were left would be very happy with living anymore.

Why do we keep hearing that the Soviet Union has an elaborate civil defense plan? -

Because it suits the purposes of peple who want to push a civil defense plan in this country, and it also suits the purposes of people who either enjoy the illusion or wish to push the idea that the Soviets somehow or other have got a strategic advantage.

If you go to competent, intelligent Soviet sources, you find out that while they spend a lot of money on civil defense, it's pretty much a sham, just like it is here. They, too, have been the victims of wishful thinking. It's a turkey, and there's no reason why we should copy it.

You don't think, then, that they know something that we don't know about civil defense or that they've got some sort of secret weapon?

No, I don't think that.

Do you agree with those who say that building more nuclear weapons reduces our security and increases the risk of nuclear war?

Yes, I do. It increases our risk because the more weapons there are, the more terrible the consequences of a nuclear war and also the more likely that a military commander might imagine that he could use them for some purpose or other. It also increases the chances of accidental or unauthorized use or the possibility that a weapon or two would fall into the hands or terrorists.

Do you think the MX missile is a good idea?

No, I don't think the MX missile is a good idea. I think it is a destabilizing weapons system because nobody has figured out a way yet to make it invulnerable to attack, and therefore it's in that position where officials would be tempted to use them or lose them. And it puts the Russians in the same bind-increasing the risk to us.

What about SALT II? Should we ratify SALT II?

I think that that would be a healthy first step. Do you think the Soviets are just

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Correspondent believes Soviets losing arms race

Leslie H. Gelb is national security correspondent for The New York Times. He previously was director of the Bureau of Politico-Military Affairs for the State Department (1977-81), director of policy planning at the Defense Department, and acting deputy assistant secretary of defense for policy planning and arms control (1967-69).

For senior administration officials, arms control policy isn't just a matter of politics; it is principally a matter of beliefs. They believe the United States has slipped into a position of general military-particularly strategic nuclear-inferiority with respect to the Soviet Union. And they don't believe that the United States has any chance of driving a fair bargain with the Soviet Union in negotiations until that military balance is righted.

So, their primary interest has been to increase American military

Questions From Page 7

as scared of us as we are of them? In the nuclear field, I think yes. I think they're very much concerned about what they regard as saberrattling and illogical behavior, and they're worried to death about nuclear war.

How do you respond to those who say the recent concern about the nuclear arms threat is just an overreaction that has been whipped up by the media?

I find it very hard to comment on that dispassionately. I think that is so wrongheaded that it's very difficult to be temperate about it. People who talk like that have never seen a nuclear weapon explode. They've never taken the trouble to look at what happened at Hiroshima and Nagasaki, and they've never taken the trouble to analyze what would happen with nuclear weapons exploding over our cities or theirs. I just think it's a totally irresponsible, damnable position to take.

But haven't we had the same threat of a nuclear war for years?

As a matter of fact that's not true. We have not had this threat for years. In recent years the total number of nuclear weapons and the disposition among the powers has more than doubled. Even more important, the level of rhetoric since about 10 years ago and the irresponsible cracks about potential ways inwhich you might fight war with nuclear weapons have increased. I think we're in worse shape than we have been.

Do you think that's why people seem to be worked up over this issue now?

capabilities and through various economic measures, try to put the squeeze on Soviet military capabilities. And their deep conviction is that until the balance is equalized in their eyes, they don't believe we can successfully negotiate an arms control agreement.

Their arms control proposals call for much greater reductions in Soviet forces than in American forces because they believe the Soviets are so far ahead that it's the Soviets who are going to have to do most of the reducing.

How far is the administration likely to go in response to political pressures? These are people who are not likely to be easily swaved in the substance of what they're trying to do. They can be affected in decisions of whether or not to negotiate. They can be influenced on matters of timing. They can be pushed to ex-

plain themselves, to keep a process going, not merely to reject negotiations. All that's possible, but as for the rest, I think if there's to be any real change, it's not going to occur within the administration but more likely within congress, Republicans and Democrats there coming to believe that unless something is done in the whole range of arms control negotiations over the next couple of years that once again we will have risen to a higher and much more dangerous plateau in military competitition with the Soviet Union.

A major issue in this debate is. what is the balance, because unless we can get some greater public appreciation of who stands where, who's ahead, what "ahead" means, you really can't do anything else. Over the last six to eight years, this debate has literally been dominated by people who are convinced or have reasons for seeking to com American people that the States is inferior to the Son in terms of nuclear capabil

I think this is profoundly only one respect are Sovie better than ours. Paul War that's in land-based m ICBMs. And even there it the sense that they cam warheads. Ours remain curate than theirs. Our missile firing submarines an better than theirs. Our crus program, by various estimat to eight years ahead of the Union. Our bombers, even ing, are in fact younger Soviet long-range bombers more capable.

When you look at these there's no question that the States is not in a position of ty.

those are all manageable, and that

they all pale into insignificance when compared to the importance of stopping the continuous buildup while we negotiate for deep arms reductions.

I don't think the freeze is a substitute for deep arms reductions, but I can't see how it does anything but help with the negotiating process toward them. I particularly reject the idea that we should or can build up our nuclear forces in order to gain an advantage over the Soviets before we can negotiate. I think that's nonsense. They can build up just as fast, and in my judgment, they will.

But you said before that you think we're about equal now.

That's my opinion, yes.

Can citizens make a difference on this issue?

If by citizens you mean voters, yes. And I think it's extraordinarily important that those citizens who feel strongly on this issue should become voters. At the same time I hope very much that this very sound revulsion against nuclear weapons doesn't spill over into a general antimilitary attitude.

We need to keep and improve a military capability to defend Europe by conventional means, so nobody will be tempted to use nuclear weapons. We need to keep the oceans open, because the Western alliance is an oceanic alliance. We need to be able to protect remote places in the world, such as the Middle East, for peacekeeping and because our vital interests are at stake there. These are things which we very much need. And they come together under the rubric of conventional weapons, and those are things that we need for our security and our freedom and much of the world's.

changes in policy.

Now let me make it clear that I'm not talking about unilateral U.S. actions. I'm talking about developing the political will here and in the U.S.S.R. to reduce the probability of nuclear war.

But how can we influence what the U.S.S.R. does?

They follow us very closely, and I think they pay a great deal of attention to what they perceive our intentions and our capabilities are.

In my judgment, what it really takes is the political will on the part of the United States and the political will on the part of the U.S.S.R. to tell their negotiators, "You find the means to take this terrible peril away." With that political will, I promise you there is no security obstacle, no physical obstacle, no technical obstacle, no economic obstacle to making massive reductions in nuclear weapons. All that it takes is the political will between the two of us.

Is that likely to happen?

I think so. I think that the present nuclear arms situation is 80

dangerous to the security United States and so dam the security of Russia that common sense should com get together and do something it. And in this area we and sians have two very strong interests. One is that we di to be blown up and the othe we don't want nuclear we over the world in the hands dafi and Khomeini and pe that. Do you think that the evidence that the Soviets willing to put down some

Yes, I think there's evidence-their pronouncen the highest levels in the Union, from Brezhnev on de have formally, of course, nuclear arms reductions negotiations of further nucle reductions. So I don't think any reason to doubt that the ing, if we can negotiate st that's clearly in the interest of us. And I think that's matter of political will.

arms?



I think it's a very reasonable thing to be worked up over. After all, it is a situation where you're going to get slaughtered without any warning and without your consent, you and your family and everybody you know, and your civilization and everything else. It seems that it ought to be something to get your attention.

Do you support a nuclear freeze? Yes, I do. I understand the arguments made about the imbalance resulting from a freeze; I understand the arguments about verification; I undertand the arguments about the time it would take to negotiate and so forth. I think

So do you think citizens should be voting for those people who want to do something about the nuclear arms buildup?

Yes, I think it is the most effective thing and, of course, sensitive political antennae will be out long before the voting even takes place. So the fact that there are citizens concerned about this and that they intend to vote will be registered by politicians, and it will result in

ow test scores may be linked to nuclear testing

or college-bound seniors rose again fter a 1-year decline, but ducators are still uncertain what auged the wo-decade decline or my this year's scores suddenly

Still, an a ndance of theories has nrfaced to cplain the fluctuation. hey range from the schools' reback-to-basics classes mphasis on the harming of above-ground uclear taxing.

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(CPS)-Stan lardized test scores year ago, experts were hopeful then last year's holding steady, is a that it signaled an upturn in the longrunning decline, but few were ready to predict scores would increase this vear.

> Yet performances on a variety of standardized tests-the Scholastic Aptitude Test, the Test of Standard Written English and the 15-subject College Board Achievement Testsindicate test scores may finally be on the path to recovery, College Board reports.

"This year's rise combined with

welcome sign for educators, parents and students that serious efforts by the nation's schools and their students to improve the quality of education are taking effect," says George Hanford, president of College Board.

Hanford remains noncommittal, however, on whether the rise is an ongoing trend or only a temporary interruption in the test score decline which began in 1963.

"There are several signs we think are encouraging," notes Fred Moreno, spokesman for College Board.

"Teachers have been reporting for some time that students are more interested in academic subjects and in good grades. And we know that the class of '82 had more math and physical science courses than ever before. Since most of the tests deal with these subjects, we think students were better prepared to answer the questions in these areas.'

Schools have also "tightened up in terms of basic academics." savs Dr. Larry Loesch, president of the Association for Measurement and **Evaluation in Guidance.**

"I think there's a growing emphasis on traditional academicsmath, science, and English-from the back-to-basics movement," Loesch **88y**8

"In the 60s and 70s, we had a more liberal attitude towards education. But as times have gotten tougher we've moved back to traditional courses."

Indeed, a recent study from the University of Iowa noted that in larger high schools where more traditional courses were offered, students also scored higher on standardized tests such as the SAT.

Not everyone is convinced better education is responsible for the rising test scores.

The decline in SAT scores which began in 1963 can be directly correlated with the beginning of aboveground nuclear testing," theorizes Ernest Sternglass, professor of radiology at the University of Pittsburgh.

Several years ago Sternglass predicted this year's rise in test scores based on the ending of aboveground testing in 1963.

And, he predicts, "there will be an upturn in scores for at least the next generation, except in areas very close to dirty, leaky nuclear reactors."

Sternglass claims mothers who were pregnant between the years of above-ground nuclear testing-roughly 1945 through 1963-gave birth to children who were mildly contaminated by radioactive iodine.

Those children mark the beginning and apparent end of the 19-year slump in SAT scores.

"The kids who take the SAT are typically 17-to 19-year-olds," Sternglass explains.

'Children born in 1945 would have taken the SAT in 1963. the beginning of the SAT score decline. And children born in 1963 when the last above-ground explosion took place in the United States would have taken the test in 1950 or 81. This year's rise in test scores took place because it is the beginning of the first group of kids not exposed to the radioactive iodine."

Sternglass says the iodine causes a mild form of retardation called hypothyroidism, which isn't actually identified until the children are tested in high school on examinations such as the SAT.

"I really can't comment on a theory like that," says College Board's Moreno. "For now, I think it's fair to say we really don't know for sure what single event or events are responsible for the increase."

Questionnaire tests government cials ideas on nuclear bombs To cope with the threat of nuclear States' self-interest. nerican people must

heir ability-and their poneibilli -to help shape policies hat help pi vent such war. It is vital that voters have a clear

lea of where candidates stand on uclear arms issue. While Common ause door not have a position on to of the issues covered in this pestiminate, we believe it is imhese issues public.

mmon Cause activists we been esigned to request your motors and representatives to commmon Cause questionear arms policy.

help by raising these ame quant ins during the 1982 cam-aign whenever you have an opertunity at candidate forums or bates, vollies, radio call-in shows ith condidates and by writing leters to both candidates" and

arms control is not an the "experts" should ical policy decisions by musives. In recent months, the blic entery for a meaningful angs in U.S. nuclear arms policy videspread and intense. re now turning to the nake their opinions felt. ber of Congress, what you take to help reduce nuclear war?

are various yardsticks sed to compare the size ed States and Soviet orces: launchers.

arheads, throw-weight, and . The strength of those o affected by the speed, ange and accuracy of different

tems. elieve that the United the Soviet Union have equivalent nuclear pabilities, or does one significant advantage r?

enate committee near-ALT II treaty, witnesses debated whether U.S. on in arms control with the U.S.S.R. should Soviet behavior in other non-military arenas.

at Soviet interventions tan and Poland have uestion of linkage in a y. Opponents of linkage at arms control negotiaot-and should not-be reward or punishment ehavior, and that the it of strategic arms conmuch in the United

Proponents believe that linkage provides important political leverage and that U.S. participation in arms control negotiations should be tied to Soviet behavior in international affairs.

Do you believe that the United States' willingness to negotiate and ratify future nuclear arms agreements should be linked to Soviet behavior outside the arms control arena?

4. The administration has requested roughly \$1.6 trillion over the next five years to modernize and build up U.S. nuclear and conventional military forces. This represents an average annual real growth rate (after inflation) of seven percent.

Proponents of this buildup assert that, in light of Soviet defense spending trends, anything less than the administration's proposal would be dangerously inadequate.

Many who support strengthening our defense capability nonetheless question the pace and magnitude of spending increases called for by the administration. They cite harmful side effects such as inflation, mounting budget deficits, and diversion of resources from social programs, and suggest instead that lower-cost alternatives be adopted.

Do you support the administration's proposed buildup? If not, how would you alter it?

5. By virtue of their accuracy and explosive power, the proposed landbased MX and submarine-based Trident II missiles might be capable of destroying Soviet land-based missiles in their silos.

Many opponents of these U.S. weapons believe that our posing such a threat would increase the likelihood that the Soviets would launch their missiles in a crisis rather than risk losing them.

Supporters note that the Soviets may soon be able to successfully attack our land-based missues, and argue that we must modernize our missile force with survivable and similarly capable weapons.

Do you favor deployment of the MX and Trident II missiles?

6. President Reagan has stated publicly that the United States will refrain from any actions that would undercut the unratified SALT II treaty so long as the Soviets do likewise. Some experts have suggested that SALT II, which places limits on missile launchers and heavy bombers, is an important step in the arms control process that should be preserved.

Others believe that the treaty does not adequately constrain the Soviet land-based missile force and should not be considered further. Will you support legislation that

binds the U.S. to abide by the SALT II treaty so long as the Soviet Union does the same?

7. On August 5, 1982, the House of Representatives considered and rejected, by a vote of 202 to 204, a nuclear freeze resolution that called upon the administration to enter into negotiations with the Soviet Union for an immediate, bilateral and verifiable freeze on the testing, deployment and production of nuclear weapons. Opponents, backed by the Reagan administration. argued that seeking a freeze at current force levels would lock in what they saw as existing Soviet nuclear advantages. They claimed that that would undermine the president's negotiating position in the Strategic Arms Reduction Talks (START). Proponents of the freeze resolution argued that the U.S. and the Soviet Union are now in rough nuclear parity, and that a freeze should be instituted without delay. In their view, a failure to halt the nuclear arms race now would make future arms reductions exceedingly difficult if not impossible to achieve.

If a similar nuclear freeze resolution were introduced in the next Congress, would you support it?

8. The Reagan administration has decided not to renew negotiations with Great Britain and the Soviet Union for a comprehensive ban on nuclear weapons testing. Conclusion of a comprehensive test ban treaty (CTB), talks for which were last held in 1980, has been a goal of every administration since 1960.

Do you believe that the U.S. should promptly resume negotiations for a comprehensive test ban treaty?

9. There is growing concern about the proliferation of nuclear weapons in other countries through the export of technologies that provide direct access to weapons-grade materials, such as reprocessed plutonium.

Do you favor the administration's plans to ease the existing controls on plutonium reprocessing?

10. Some people fear a nuclear exchange between the superpowers will be precipitated by the use of nuclear arms by terrorists or a third nuclear power.

Do you believe that creation of a U.S.-U.S.S.R. nuclear crisis management center would be a worthwhile initiative?

Japanese bomb survivors tell tales of blast effects on Hiroshima

The following descriptions of the Hiroshima bombing are from testimony given during a congressional hearing in March on a nuclear freeze proposed by Sens. Edward Kennedy (D-Mass.) and Mark Hatfield (R-Ore.).

It's not so far-fetched. It happened once, and it could happen again. Except instead of a limited nuclear attack, chances are likely it would be an all-out nuclear war. Today the Soviet Union and the United States have the equivalent of one million Hiroshima bombs or four tons of TNT for every man, woman and child on the planet.

At 8:15 one August morning 37 years ago, the Doomsday Clock struck midnight. To end World War II, the United States dropped the first atomic bomb on Hiroshima, Japan. The bomb killed more than 75,000 and injured nearly 100,000 of the 245,000 residents. The city was destroyed.

There was a great flash of light, as if millions of flashbulbs were ignited at the same time. It was so bright that we couldn't see anything. And instinctively, I started to run toward the air raid shelter.

Seconds after the bright light, there was a tremendous flash and explosion, and after that I didn't know what happened...

All through that day, morning to evening, people came walking, and all these people, most of them were naked, some of them you couldn't even recognize whether they were a man, a woman or-practically all of them were walking with their hands extended-their arms extended, their hands hanging down-and their knees slightly bent, almost on tiptoes. Large blisters on their bodies, with some fluid moving in the blisters. Staring ahead.

And during the night-we couldn't sleep because of the moaning and crying of these victims. These people crying for their mothers, for water; and that evening I climbed up a chimney near our home at a factory near our home. And I looked toward the city, and the city was burning.

The next morning I went up again, and then I saw that the city was no more...

I also noted that during the day when I went to the city that I came across a streetcar and saw people sitting and standing in the streetcar. and I felt strange that people would be resting in a streetcar at a time like this.

As I came by, I realized that all these people were dead. The people itting own were dead. They were burned beyond recognition. They were standing up with their hands on the crossbar.

were probably standing at that time. During the days and weeks that followed, I saw many people in our neighborhood with burns. There was very little medication, and even at the army hospital there were few doctors and nurses available. There were very few medicines. So the only thing they could use was the type of medicine like Mercurochrome or some sort of oil, ointment to put on their bodies. And soon their burns became infested with maggots; you could see the maggots crawling all over their bodies.

I can still remember the peculiar odor that these people had. I shall never forget the odor ...

I have seen people who didn't have their bodies. They were wearing a helmet at that time, and the skull was beneath the helmet, no bodies, just their skull.

And hundreds of thousands of people continued to flow towards the section of the city that I was leaving, because there was a post there, and they were evacuated there.

And [as for] people who died at the hospital, at their home, there were no facilities to cremate them or bury them, so they were just piled up in a huge pile of bodies, and burned close by.

And I still remember the looks in my friends' faces that had lost their parents and brothers and sisters. They just didn't know what happened. They knew it was some kind of bomb. They didn't know what kind of bomb it was. And we really realized that, and we thought that Hiroshima just like hell, hell on this earth; the city just turned into a desert of death.

Mitsuo Tomosawa

Every day, I would think, in case anything happens, I will duck under my workbench counter, because that was built right onto the wall and it was strong and sturdy. So I did, I bent down to get under, but the air pressure came and blew me out of the room.

Then I was floating on the air, like floating over this way and that way, and I felt-suddenly, I stopped moving. So I sat up and tried to look to see what happened.

Then a crash came over my head, and something crashed on my head. I felt a big slap on my left cheek, just like somebody had slapped me very hard.

So I covered my face with my hands, and my hands just went right into my face. Then I thought, "Well, I'm injured." So I bent down right on the floor again, but I couldn't hear anything. I didn't feel anything. So I started looking up again and everything was so dark, I could not see anything ...

outside. So I went to the communications office backyard, because I knew there was a great big pool there where they kept water all the time in case of fire. So I went there, because I needed water. It was so hot.

Then I saw the backyard was all orange up in the sky. I couldn't see blue sky anymore, and I didn't know what time of day it was. In that pool there were so many people, lying over on top of one another. The people on the bottom were drowning and the peple on top were hot and were trying to get in. So I pushed a few heads over so I could get some of the water, but I wasn't able to get water.

I could hear my hair was crackling, and my dress was curling up, and I noticed my dress-it was funnyall the seams were gone and all the pieces were just hanging there from my shoulders.

So I went back to the front of the hospital again. I remember we had a fire lane there, a little opening. So I went there and I found a water pipe that was broken and it was spraying water.

And I just sat there in the water. I lost all my-I felt like I had lost all the bones in my body. I just got so weak, and I looked around, and the ground was orange; the sky was orange. No way I could escape anymore.

Then I saw a woman trying to escape. She said that the fire was just there, and I could go out the side and escape. So she came into the water to get all her clothes soaking wet.

Then she started walking through it. Then she danced in the fire. I watched, but I couldn't do anything and nobody else could do anything for

And I saw my friend who was on the staff in the communications post office. She was walking with her mother and father's help to try and escape toward the west side of Hiroshima. And I saw her feet. They were cut at her ankles and were just hanging by a thin skin. She was walking on her ankles at that time. I did not see her until a year later, but I could never forget her on that day.

Then I saw my hospital doctor was being helped by the head nurse, and they were going to the west side, too. And the head nurse told me, "Come along with us, we're going that way to escape." And I tried to get up, but I couldn't move anymore. Then I think I passed out. Then I don't know how long I was there under the water spray.

Vhen I woke up, black rain was falling, and people were shouting about the black rain. We didn't know at the time-we all thought at the time that it was oil; that probably the B-29s had come back and dropped oil on us and would put fire on us. So everybody started moving, and whoever was able to move, they were trying to go away from that place. But I couldn't move. Then I passed out again. And the next time I came to, just everywhere were dead people. At that time, I could hardly get my eyes open because my head was so badly swollen, and I could only see the fire with my right eve. And my left eye was-I thought I opened it, but I couldn't see because it was

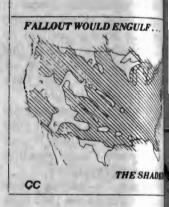
Predicted bomb blasts and burn ba

The U.S. Federal Emergency Managen Agency (FEMA) has designated them areas as "bigh risk" in the event of a scale nuclear attack. If these areas we almost the entire country would be a with lethal radioactive failout within 24

IN A NUCLEAR WAR



THESE TARGETS ARE LIKELYN



so swollen.

But I lifted my lid open finger and saw a beautiful and, what looked like a d Nobody was standing up was walking around. Just there looking at the building of me, the hospital and munications building.

So I started crawling. get up. I couldn't lift my an looked at my shoulder and about a six-inch-long piece stuck in me, and in my leg. just crawled; I couldn't w hospital. And I don't know it took me to get there. there, and the doctor saw came toward the door and me up. He said, "Oh, I'm soft you out there, but I thought dead." He picked me up and to the surgery room ...

Then three or four dod together and cleaned me up. pieces of glass out, and they to sew up my face. They they me, "We don't have anesth no special equipment." I just to leave me alone. Buth didn't let them do it, I would afterward-if I survived started sewing my face with heavy needle. I was screa the time, asking them to b please leave me alone... Kimute

And there were people sticking their heads in the water tanks that were prepared in case of air raid fires. They were dead with their heads in those water tanks.

People were lined up-many, many hundreds or thousands were lined up on the river bank that ran through Hiroshima, and they were dead.

Hundreds of bodies were under the bridges, piled up. And I also noted that on the bridge that I always walked over to my school there were footprints of people who

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[Finally,] I got up and I ran to the front way. Then I saw everybody was injured, blood all over, and I just went straight to the front door.

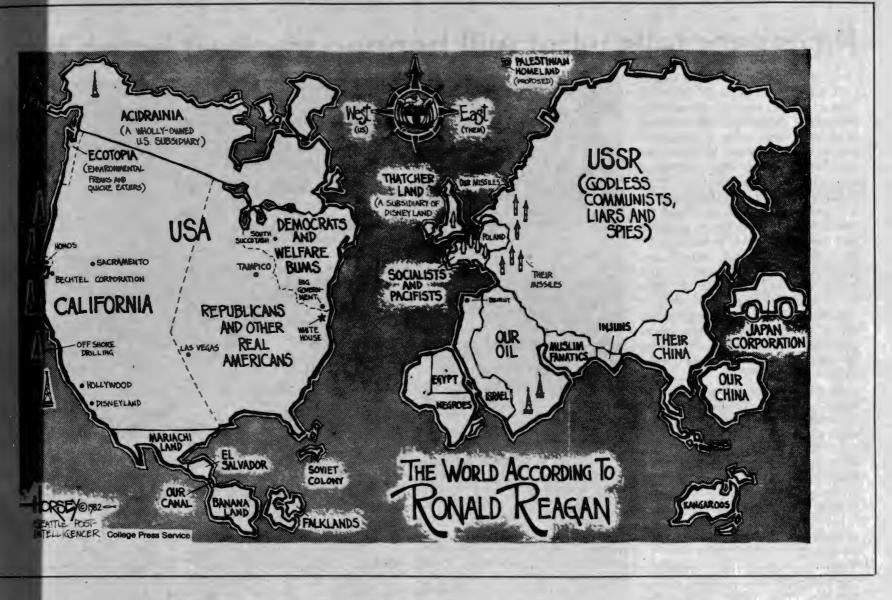
There I saw people burned, just like overcooked turkey, and some of them very badly burned so they couldn't see; just black people standing there with their skin hanging down from their cheeks and arms. It looked like they had long faces and long arms...

Then, at that time, it stared getting hot because there were fires

The first time I saw m couldn't believe that was m ed like a red monster. eyebrows, no eyelashes. face, with soft new skin tiss it took me a long time to " was me. The first time I real was me, somebody poured in over my back. And still remember that feeling. I w forget. Shiegeko S

Spectrum Sup

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Nuclear physicist offers bomb statistics

Feld's career as a ucint has been closely associated erican development of alwar pow er. He worked with rico Fermi in developing the first clear chai n reaction, and was a ist at the Los Alamos then the atomic bomb

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ntly is a professor of he Massachusetts Innology and is editor-in-**Bulletin of the Atomic** an internationally prum on science and Feld is a fellow of the sociation for the Adof Science and has seived the Public Service Award of Federation of American Scien-

Since 1945, when the first crude merican nuclear weapons stroyed the Japanese cities of ms and Nagasaki, the world ckpile of nuclear weapons has o been rising. Today, the United and the Soviet Union have arly 20,000 each, most of them ny times as lethal as the 1945 odela. These weapons are ployed nn long-range missiles BMs) cepable of spanning the ered ubmarines (SLBMs) apable of poaming the ocean botns for months at a time, and are arried on intercontinental-range rmanently on instant

The lenders of the two "super-wen" have it within their power, anally by pressing a button, to an-hillow all the major cities of their tagonists 10 times over. And it is equively beyond the power of that to prevent the other from car-ing out such apocalyptic destruc-on Truly, the United States and the avist Union have trapped

themselves in a situation of "two scorpions in a bottle."

But it is not just the nuclear giants that hold the world in this precarious state. Other nations, sometimes referred to as the "lesser" nuclear powers, have been striving to emulate them. Thus, England, France, China and India have already publicly demonstrated their capability of detonating nuclear explosives and, with the exception of India, are assiduously accumulating nuclear arsenals and effective means of delivering them long distances.

At this time, at least four other countries are close to joining them. Unless nuclear powers enact much more serious restraints and unless we have determined and honest international efforts to shore up the totterng non-proliferation agreement, we can be certain that the nuclear virus will have infected the entire industrialized world-and a large part of the Third World as well-before the end of this century. This is a frightening prospect, and although the political leaders of the "Western democracies" generally recognize the gravity of the situation, they have done little more than pay lip-service to the need for changing it.

Furthermore, allegedly responsible U.S. governmental leaders now refer to nuclear war as being "limitable," or even "winnable"; they extol the virtues of the neutron bomb because it only kills people and leaves property intact; they talk of emerging from a "protracted" nuclear war-in which only a few hundred million people are killed on both sides-to rebuild from the ashes and resume "business as usual" in just a few years.

Worse, it is not just "talk": elaborate and sometimes ludicrous

plans are being devised and detailed for "evacuating" our metropolitan centers in times of crisis. Reinforced underground shelters, stocked with the necessities required for survival therein for many months following a nuclear attack, are being constructed for our "leaders." A largescale business in "survival" equipment for Mr. and Mrs. Ordinary Citizen has evolved, of which a major item appears to be the firearms necessary to keep interlopers out of your shelter.

Is it any wonder that "The Bulletin of the Atomic Scientists' " "Doomsday Clock", now at four minutes before twelve-stands closer to midnight than at any time since 1963 (when, after 10 years of cold war, during which the clock had been frozen at two minutes, the signing of the Partial Test Ban Treaty signaled the beginning of a decade of "detente")?

Or is it any wonder that millions of American citizens are desperately looking for some way of expressing their convictions that the only way of dealing with the menace of the nuclear arms race is by doing away with nuclear arms?

Should we be surprised that both **Europeans and Americans are final**ly willing to take to the streets in a desperate attempt to convince their governments that what they want is a real change in approaches to making peace, not just cosmetic appearances?

Today we must ask: Will the inertia of a policy of bluster finally drive us over the brink of nuclear war? Or will an aroused citizenry in America, in Western Europe and, yes, in Eastern Europe as well, force our leaders to stop, to contemplate together our mutual dilemmas and, finally, to turn toward a disarmed, cooperative world?

What can we-you and I-do to influence the outcome of this race? We must speak up-individually and in groups-to let our leaders know where we stand on the issues of disarmament and nuclear war. We must emphatically support the mushrooming "freeze" movement as a. way of preparing to engage in serious negotiations for very substantial reductions. It is essential to halt the current rate of production, testing and deployment of new nuclear arms and their systems of delivery, lest the traditionally slow pace of negotiations again be overtaken by a new generation of even more ominous and lethal weapons, perhaps this time deployed in space.

And while we are using modern technology to build up the necessary physical barriers against nuclear weapons proliferation-both vertical and horizontal-we must strengthen the psychological barriers by means of a mutual, eventually universal nofirst-use agreement, as applied to nuclear as well as chemical, biological and other weapons of mass destruction. This is a minimum program of immediate actions dictated by the imperative of human survival.

We must introduce these issues into the electoral process at all levelslocal and national-and we must convince all candidates for office that they will be judged at least as much, even more, on their positions on these issues of survival as on the conventional "bread and butter" issues. It is only by putting nuclear war prevention and nuclear disarmament at the top of our priority list that we may still be able to reverse those national and international forces that seem to be driving the world towards that disaster from which there would be no return.

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Professor tells what will happen to city if bomb hits

By H. Jack Geiger

H. Jack Geiger, M.D., is Arthur C. Logan professor of community medicine, City College, City University of New York, and is a member of the board of directors of Physicians for Social Responsibility, of which he was a founding member.

To calculate the consequences of a thermonuclear attack on an American city is to try to describe and understand an event without precedent in human experience. Hiroshima and Nagasaki do not serve. The weapons used on those cities approximated 13 kilotons of explosive force. At one megaton—a small weapon by contemporary standards—we are trying to imagine 80 simultaneous Hiroshima explosions.

At 20 megatons we are trying to imagine 1,600 Hiroshima bombs detonated at the same time in the same place.

At the time of Hiroshima, there was one nuclear power and the world's total arsenal comprised two or three weapons. Today there are at least six nuclear powers and the total arsenal--conservatively estimated--exceeds 50,000 warheads.

But most important, Hiroshima and Nagasaki were isolated, limited disasters. They could, in time, be saved and reconstructed with help from the outside. In any full-scale nuclear exchange today there would be no "outside" that we could rely on for aid.

In a population-targeted attack, every community in the United States with a population of 25,000 or more might be destroyed.

The same is true, of course, of all the communities in the Soviet Union, Great Britain and Europe...There are so many warheads that there is a shortage of targets.

During the last 20 years, the consequences of nuclear attack have been calculated in exquisite detail in hundreds of scientific journals, books and government publications.

It is relatively easy, in scientific and medical terms, to predict the effects of overwhelming blast forces, searing heat and intense radiation on human beings and their environments.

It is the imagination that fails, because we are so unfamiliar with the scale and magnitude of these forces.

For example: a large conventional bomb explosion creates a heat of about 9,000 degrees Fahrenheit; a thermonuclear explosion creates a heat of 27 million degrees.

Or again: if we were able to divide



SU's system of underground tunnels would work in a pinch if fallout shelters are nowhere near. Will they protect you from Probably not. No shelter is safe from destruction if close enough to ground zero.

suitcase.

To calculate the effects, we need to know only the size of the weapon, the nature of the attack (air burst or ground burst, single or multiple strike), the nature of the terrain, the time of year, the day of the week and the time of day, and the prevailing weather conditions, especially the wind direction and velocity.

A single one-megaton air burst over the New York City metropolitan area, for example, would-according to the calculations of the U.S. Arms Control and Disarmament Agencykill 1,667,000 people and profoundly injure 2,838,000.

A single 20-megaton air burst would kill 7,698,000 and seriously injure 3,874,000.

These numbers, so large as to be almost beyond comprehension, are serious understatements, however.

Assuming something quite probable-that the attack would occur on a weekday when more people would be working in the central city, near ground zero-and something quite certain-that the nuclear explosion would create a Hiroshima-type firestorm burning for days at 1,800 degrees Fahrenheit, turning every bomb shelter into a crematoriumthe casualty count would increase 25 percent. Taking these factors into account. a one-megaton air burst would kill 2.000.400 and severely injure 3,405,600 for a total of 5,406,000, or 33 percent of the New York City metropolitan area. Again, taking the same factors into account, a 20-megaton air burst would kill 9.2 million and severely injure 4.6 million for a total of 13.8 million, or 85 percent of all the people in the New York City metropolitan area.

ed in one place in one moment.

There is no previous situation in which there were three to four million seriously injured human beings in one place.

And what would these injured "survivors" be suffering? Tens of thousands-in some circumstances, more than 100,000-people would have extensive third-degree burns.

The number of New York City metropolitan area burn cases alone would exceed by a factor of 1,000 the capacity of all the burn-care centers in the entire United States.

Hundreds of thousands of "survivors" would suffer crushing injuries of the chest, abdomen and limbs; skull fractures; spinal cord injuries; and multiple lacerations, hemorrhage and shock.

Many would have these injuries in conjunction with burns and acute radiation sickness. A moderate number would have ruptured lungs and eardrums from blast pressures, in addition to their other injuries.

Many would be blind, because as far as 35 miles from ground zero, a reflex glance at the nuclear fireball would produce severe retinal burns.

These would be the short-range

Another factor is that it be no hospitals, no ambulab equipment, X-ray plasma or drugs. In sh would be no medical care we commonly understand

What would be left buildings would be lying would be left of the street would be down; subways nels would be crushed.

But these are the conseq just one weapon-a sin megaton or 20-megaton ds in one strike. In the real many as 30 or 40 megatom the New York metropolit with strikes occurring over weeks.

In the real event, there 7,000 or 10,000 megatom on the United States-and or even larger number on Union.

Deaths would occur ev not just in the target radioactive contaminatio and as epidemic diseases tion followed.

There is no defense; cit is at best an illusion, a fraud.

the combined American and Soviet arsenals into Hiroshima-size bombs, and we were to explode one such bomb every minute-60 Hiroshima bombs an hour, 1,440 a day-we would have to do that for two years and three months before we exhausted the arsenals.

Since we cannot imagine a fullscale nuclear war, in order to comprehend the consequences of thermonuclear weapons we must consider the case of a single weapon and a single city-a one megaton warhead, let us say, the equivalent of one million tons of TNT.

That's enough TNT to fill a freight train more than 200 miles long; the actual bomb is about the size of a

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There is no identifiable event in human history in which two million to nine million people have been killproblems to which a medical response would have to be addressed.

Long-range problems would, of course, include the epidemic disease potential of millions of decomposing human corpses, lack of safe water, a burgeoning growth of insect carriers of infection, and rapidly decreasing stocks of food. But who would be left to respond?

Assuming a one-megaton air burst, one physician would survive for every 1,000 severely injured persons in New York City.

Working 20 hours a day, it would take eight days for every critically injured "survivor" to be seen once by a physician-for about 10 minutes.

The only true meaning vival" is social, not biolo ply to tally those who are or alive and uninjured, is biological body count the social meaning.

The biological "survive probability, merely have their deaths. Life in the would bear no resembla before a nuclear attack.

From a medical stand danger of nuclear war i health problem of unp magnitude.

There is no coherent re cure. Only one medical (strategy remains: preven

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