MEMBERS PRESENT: Chairman Jeffrey
Vice Chairman Redelsperger
Mr. Mello
Mr. Kovacs
Mr. Dini
Mr. Polish
Mr. Schofield
Mr. DuBois
Mr. Rhoads

GUESTS PRESENT: Please see attached Guest List

Chairman Jeffrey called the meeting to order at 2:05 p.m.

SB 381 DIRECTS GOVERNOR TO CONTRACT WITH FEDERAL GOVERNMENT FOR MONEY TO AMELIORATE FINANCIAL EFFECTS OF MX MISSILE PROJECT.

First to testify was Bob Erickson with the Research Division of the Legislative Counsel Bureau. Mr. Erickson explained that Section 1 deals with the acceptance of money for the MX, Section 2 deals with the creation of a state MX missile board, and Section 3 addresses how a request for money from local and state entities would be handled. Mr. Erickson then discussed the bill section by section. He distributed to the committee a copy of NRS 278.240 which is attached as EXHIBIT A.

G. P. Etcheverry, Nevada League of Cities, said his group endorses the concept of this bill after a series of various meetings with the State Project Coordinator's Office and the Senate Committee. He said an amendment was to be available today after a meeting with the State MX Oversight Committee. He said it concerned page 2, line3, subparagraph 4. The Governor did not want the State Board of Finance involved as another layer in this funding. Also, on page 2, line 44, they would like four words deleted, "MX project coordination office." On page 3, line 7, subsection 3, they would like it to read "shall" instead of "may." Mr. Etcheverry briefly mentioned the companion bill, AB 640.

Chuck Neely, Clark County School District, said that they are in support of SB 381, however, they would like clarification that the school district would be a member of the committee if the MX system in put in Clark County.

John Hawkins, representing the Nevada School Boards Association, said they are in favor of this bill, basically because the school districts impacted by this bill will need up front funding with a minimum of red tape in order to respond to rapid increases in student population. He said the make-up of the student population will change and public information will be a need as well.

Joe Denny, representing Clark County, and Brent Eldridge, Chairman of the White Pine County Commission and member of the Oversight Committee spoke next. They were also representing Mike Voliani representing Rural Counties.

Mr. Denny said they are in favor of the bill in concept. They agreed with previous amendments presented. He said they agree with language that says members shall represent areas that are financially affected by MX placement.

Ashley Hall, Deputy City Manager for the City of Las Vegas, said that they endorse suggested amendments made by the League of Cities and the others present.

Jim Wadhams, State Commerce Department Director, said he was representing the MX Policy Committee. He said they support AB 381, specifically the amendments proposed already. One point he wanted to make is to leave the bill flexible as to naming specific political subdivisions, because of the geographically widespread situation. He said it might be necessary to have the make-up of the committee change as the construction moves to another area.

Mr. Wadhams said the MX office should be created by this legislation with a very specific sunset clause, however he agreed that it should be deleted from page 2, line 44.

John Vettel, City of North Las Vegas, said they support the bill as proposed as it will provide needed impact mediation.

AB 634 DIRECTS EXCHANGE OF WATER RIGHTS AND COOPERATION TO IMPROVE QUALITY OF WALKER LAKE.

Assemblyman Ken Redelsperger, prime sponsor of the bill, said this bill is a first step for preservation of Walker Lake. He presented a proposed amendment which is attached as EXHIBIT B. He said the lake level is dropping year by year and the composition of the water and solids had changed which has affected the fish life.

Mr. Mello asked about the water allocated to wildlife. Mr. Redelsperger replied that it is floodwater and has nothing to do with the rights already allocated.

Mr. DuBois asked about the permit number in the proposed amendment. Mr. Redelsperger responded that it directly specifies the water they are discussing, the bill before spoke to all the water on the river. He said they are talking about 8,000 cubic feet per second.

Mr. Dini asked about the phrase on line 6, "rights of equal value." Mr. Redelsperger said this should be deleted out of the bill by the proposed amendment, but it could mean exchanging cutthroat trout or protecting wildlife on these waters.

Joe Greenley, Department of Wildlife, answered the question of where the waters are going now. He said that they are excess waters, if they are not used for irrigation, or stored, they go into the lake.

Mr. Greenley continued that they have not been able to prove up on the waters because they have not been able to get access to the waters on the reservation to install a water gauge.

Mr. Greenley said he was concerned when the bill was drafted to include all the water rights on the river, and concurs in the proposed amendment to include only that water affected by the specific permit.

Mr. Redelsperger said he has spoken with the State Engineer and he has no objections to this transfer happening, its just that the legislation was needed to expedite the matter. He said the area is growing rapidly and they need to work now to get fresh water into the lake and to slow down the deterioration as much as possible.

Alan Connley, member of the Mineral County Board of Commissioners, said the Walker River forms in the Sierra Nevadas and gave a history of the river and the lake. He said Walker Lake is an extreme economic benefit to the people Mineral County and Hawthorne and should be protected by the State of Nevada.

He said that even if all of the available water went into the lake, the lake would still diminish. All they are asking is that at least the flood waters be allowed to go into the lake to help as much as possible. He said the water is coming down now, but it needs to be "legitimized" and let Mineral County go on record as an "interested party" before the water goes to court for some other reason.

Mr. Connley urged passage of the bill with Mr. Redelsperger's amendment.

LeRoy Arrascada, an attorney representing the Walker River Irrigation District, introduced James Weishaupt, Manager of the District, and Ugo Giorgi, Chairman of the Board of Directors of the District. Mr. Arrascada said: The Walker River was litigated in the Federal Court. All interested parties were directed to come forward and protect themselves and let their rights be known. The Walker River is an overly appropriated stream system. Overly appropriated in the sense that there is not adequate water in the average year that comes down to take care of all of the demands and all of the vested water rights. All of the ranching community up and down that river from the State of California all the way down to the Schurz Reservation and reliance on the validity of those rights have gone forward and invested millions and millions of dollars in development of their properties. At this late date it seems that they are trying to devest them of those rights.

Mr. Arrascada continued: The Walker River Irrigation District has a pending application before the State Engineer's Office to construct a dam known as Hoy Canyon Reservoir. It is going to be primarily a regulatory facility and one that will lend to greater beneficial use of the water. There've been continuances year after year by reason that there's been threatened litigation from the State of California if we started construction and the District has not started construction or taken steps in that direction by reason of the Compact. Waiting for the Compact to be approved by Congress. This body has approved this Compact this year again and it is my

understanding it's been signed by the Governor. It's my understanding the State of California has done likewise. It's back before Congress. We'd like to go ahead and build that regulatory facility so that we can make further use of the water in the sense that we can control it and see that there'll be more water available for all concerned.

Mr. Arrascada said if this bill passes, it will not add one drop of water to the lake. He said it will create litigation already referred to that has been extensive. It will continue for many years to come.

Mr. Weishaupt said that he has figures to prove that this bill is to get standing in court rather than get additional water to Walker Lake, and to interfer with any upstream development including the Hoy Dam project.

Mr. Arrascada said this is not good legislation and should not be passed.

Bob Sullivan, Carson River Basin Council of Governments, said that one of his entities is Lyon County and they have taken a stand similar to the Walker River Irrigation District.

AJR 37 URGES CONGRESS OF UNITED STATES TO BASE MX SYSTEM AT SEA.

Assemblyman Paul Prengaman distributed to the committee a packet of newspaper articles attached as EXHIBIT C. Mr. Prengaman introduced Dr. Sidney Drell from Stanford. Mr. Prengaman said that deployment of the MX would virtually ruin Nevada. He said it does not belong in the west and it is time to push for it to go to sea basing.

Dr. Drell's written testimony and other pertinent information is attached as EXHIBIT D.

Mr. Mello asked about accuracy from a land shot vs a shot from the sea. Dr. Drell said that you just have to use other factors from the sea, such as Navstar satellites. They will provide the accuracy needed. He said they are considering ground based satellite navigation systems.

Mr. Mello asked about the ocean being transparent. Dr. Drell said that it is not a positive aspect of the sea based plan that will last forever, someone could be developing a better submarine tracking system right now. However, he said, no alternate plan is "home free." They all will have problems such as this.

Mr. DuBois asked about the 15 member board. Dr. Drell said that he thought it was a very high level committee. He felt they do not know what they will be doing yet nor what the results will be.

In response to a question about the MX missile coming in to port once a month, Dr. Drell said, "The MX missile itself is a great advance of technology but to have confidence in its initial learning phase that it would be all out, its guidance system and everything else, unattended for longer than a month is not a bet you would make." He said the base at Fairbanks is very attractive, suggested by the Navy, as its land range is 70% of that in Nevada to a probable target and the accuracy would be much better.

Next to testify was Fred Jenkins, a rancher in Lake Valley, representing the Nevada Cattlemen's Association. He said his Cattlemen's Association and the Woolgrowers Association represents almost all of the stockmen in Nevada.

Mr. Jenkins said the MX deployment in Nevada will be an offensive weapon instead of a defensive system. He said his Association is greatly concerned about what this will do to the ranching industry as we now know it in Nevada. Primary aspects of the system will affect 180,000 acres. Secondary impacts, such as soil disturbance, will affect 6.8 million acres. He said there will be 327,000 AUM's lost rather than the 7,200 predicted. He said the total loss approaches 700,000 AUM's out of a total of 900,000 AUM's that are now available for the livestock user in the deployment zone.

Mr. Jenkins continued that there has never been a clear account of water that will be needed for the MX. He said the greatest concern must be the economic impacts; it would eliminate the livestock industry in the deployment area. He said the construction phase of the system will "soak up" all available labor and the other industries will suffer, even in adjacent states.

He said other attached problems, social problems, are increased highway kills, fence cutting, more people looking for recreational land, rustling, and vandalism.

He quoted from the Office of Technological Assessment, "No basing mode is without technical problems, but the MX land based mode has the greatest technical risk. Of all MX deployment systems reviewed, small submarine basing has the best likelihood of surviving a major Soviet attack."

In conclusion he said, "By depleting the already scarce water supplies, by disrupting the present socio-economic fabric, the project will destroy the livestock and ranching industry of Nevada. It will have a severe ripple effect on the farming and livestock operators far beyond the deployment zone...We believe all the farms will end up as parched and dry, all the cattle and sheep will die, or be moved from the land, and finally, all the people will go away. The storms will come and the winds will blow but only through the concrete and steel that's left behind." He quoted from William Jennings Bryan, 1896, "Great cities rest upon our broad and fertile prairies. Burn down your cities, but leave our farms and your cities will spring up again as if by magic."

SJR 17 PROPOSES CONSTITUTIONAL AMENDMENT TO REGULATE MANAGEMENT AND DISPOSAL OF STATE LANDS.

Bob Erickson, Research Division, said this bill proposes to amend the Nevada Constitution to provide three things: the management of public lands controlled by the state, where the proceeds from such public lands would go, and how public lands could be disposed of. He then discussed the resolution section by section.

Senator Norman Glaser, northern Nevada, said this is an important bill because at the present time, the state has approximately 150,000 acres still under its management. He said another 300,000 may flow to the state from the Department of Interior soon. He said Nevada may also get the "checkerboard" lands, about 5.6 million acres, and if the Sagebrush Rebellion was successful in its entirety, a complete 49 million acres would be under this bill.

Jac Shaw said in the past eighteen months since the Legislature passed AB 413* he has met twice with every County Commission in the state and held over 100 public meetings in the state about the land issue. He said the major concern in every area was the fear that these lands would be sold off. "SJR 17, in a very fine fashion in its amended form, guarantees to the people of Nevada that this won't happen and verifies the intent of the '79 Legislature which said it wouldn't happen."

In response to a question about selling the land, Mr. Shaw said that it can only be done under the nine sections listed on page 2 of the resolution. He said they are very restrictive conditions.

Chairman Jeffrey adjourned the meeting at 4:35 p.m.

Respectfully submitted,

Judy Sappenfield

Judy Sappenfield,
Committee Secretary

*From 1979

ASSEMBLY

AGENDA FOR COMMITTEE ON ECONOMIC DEVELOPMENT AND NATURAL RESOURCES

MONDAY

Date May 11, 1981 Time 2:00 P.M. Room 222

Bills or Resolutions to be considered	Subject	Counsel requested*

THIS AGENDA CANCELS AND SUPERSEDES ALL PREVIOUS AGENDAS FOR THIS DATE

SB 381	Directs governor to contract with Federal Government for money to ameliorate financial effects of "MX" missile project.	
SJR 17	Proposes constitutional amendment to regulate management and disposal of state lands.	
AJR 37	Urges Congress of United States to base "MX" system at sea.	
AB 634	Directs exchange of water rights and cooperation to improve quality of Walker Lake.	

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*Please do not ask for counsel unless necessary.

2421

SB 381
SJR 17
AJR 37
AB 634

Date: May 11, 1981

GUEST LIST

ECONOMIC DEVELOPMENT AND NATURAL RESOURCES

PLEASE PRINT YOUR NAME	PLEASE PRINT WHO YOU REPRESENT	I WISH TO SPEAK FOR	AGAINST	BILL
Ugo Giorgi	Walker River Irrigation District	~~AB634~~	X	AB634
Jim Weishaupt	" " " "		X	
LeRoy Arrascada	Walker River Irrigation District		X	AB634
Chuck Neely	Clark County School Dist	X		SB38[illegible]
Fred M. Jenkins	Nevada Cattlemen's Assoc.	X		AJR37
Robert W. Millard	Imperial Farms Land and Cattle			
J. C. Denny	Clark County	—		
Pamela Cosby	NV MX Project Coordination Office			
Joe Thiele	White Pine Co. Sch. Dist			
Jim Wadhams	State Commerce Dept	X		381
Roland D. Westergard	Dept. of Conservation	X		381
John Hawkins	Nev State School Board Association	X		381
Tom Young	Nev. Environmental [illegible]			
Debi Langston	City of Reno			
Connie Ashcraft	Sutro & Co.			
Brent Eldridge	Rural Counties of Local Oversight Board	X		
John Vettel	City of North Las Vegas	X		381
G. J. Etcheverry	Nev League of Cities	X		381
[illegible]	[illegible]		X	

NRS

278.240 Acquisition and abandonment of streets, parks and construction of public buildings: Approval by planning commission.

1. Whenever the governing body of any city, county or region shall have adopted a master plan, or one or more subject matters thereof, for the city, county or region, or for any major section or district thereof, no street, square, park, or other public way, ground, or open space shall be acquired by dedication or otherwise, except by bequest, and no street or public way shall be closed or abandoned, and no public building or structure shall be constructed or authorized in the area for which the master plan or one or more subject matters thereof shall have been adopted by the governing body until the location, character and extent thereof shall have been submitted to and shall have been approved by the planning commission.

2. In case of disapproval thereof by the planning commission, the planning commission shall communicate its reasons to the governing body which may overrule the disapproval by a majority vote of its entire membership.

3. If the authorization, acquisition, financing or acceptance of such street, square, park, or other public way, ground, or open space, or the construction or authorization of such public building or structure be vested by law or charter provisions in some governmental body, commission or board other than the governing body of such city, county or region, then such governmental body, commission or board having jurisdiction shall first submit to the planning commission the location, character and extent of the proposed public improvement for its approval. In the event that the planning commission shall disapprove the same, its disapproval may only be overruled by such other governmental body, board or commission by a vote of not less than two-thirds of its entire membership.

4. Failure of the commission to act upon such submission within 40 days from and after the date of the official submission to the commission by the governing body or by such other governmental body, board or commission shall be deemed approval by the planning commission.

[12:110:1941; 1931 NCL § 5063.11]

Exhibit A

Exhibit B

SECTION I THE STATE ENGINEER SHALL TRANSFER TO THE BOARD OF COUNTY COMMISSIONERS OF MINERAL COUNTY WATER RIGHTS GRANTED UNDER PERMIT #25792 ALLOCATED TO THE DEPARTMENT OF WILDLIFE FROM THE WALKER RIVER.

RENO EVENING GAZETTE 4/4/80

5/11/11
Exhibit "C"

Reno Evening Gazette Friday, April 4, 1980

Santini: Submarine MX preferable

WASHINGTON (AP) — Submarine-based MX missiles would be preferable to the proposed MX land-based ractrack system proposed for the Nevada Utah desert, Rep. Jim Santini, D-Nev., says.

Santini made the comments Thursday after meeting with Defense Department officials and two top advocates of the Shallow Underwater Mobile system. Rep. John Seiberling, D-Ohio, was also at the meeting.

Although the administration and many congressmen — including Nevada's two senators — have been skeptical of the SUM system, claiming it would be impractical, Santini said, "The final bell on the SUM system has not rung."

The Administration now proposes to place 200 MX missiles in the Nevada and Utah deserts at a cost of about $56 billion. That plan, involving 4,600 missile silos and thousands of miles of road, has aroused protests that local economies, lifestyles and environments would be shattered by the massive project.

antini has been a major advocate of moving at least part of the MX system out of the Nevada-Utah area. The sub-based system would place MX missiles or other intercontinental missiles in small, conventionally powered submarines which would roam the secure coastal water of the United States.

About 50 submarines would be used in an area of several hundred thousand miles, Santini said. Proponents say that area is too large for the Soviets to attack even if it used its entire missile force.

"I like the SUM concept and would like to see the Air Force give it a much closer look," Santini said. "It seems to me that putting the MX missile on small submarines would be like having an initiate racetrack in the ocean. Needless to say, that is preferable to spreading it over thousands of square miles of Nevada."

The two experts who met with the congressmen and defense officials were Sydney D. Drell, deputy director of theoretical physics at Stanford University, and Richard Garwin, who consults the government on military technology and arms control.

Santini said they told him that a major objection to the SUM system is invalid. That is the claim that a nuclear explosion in the sea would produce tidal waves, shaking the submarines part.

But the experts said that effect only occurs at depths shallower than 400 feet. And Santini said the proposal is to place th subs deeper than that. Santini said the chief remaining argument against SUM is that a triad of land, air and sea based missiles is the best defense.

0528

NEVADA STATE JOURNAL 4/23/80

Expert: Question MX plans

NSJ 4-23

By MARTIN GRIFFITH

Nevadans should continue to raise questions about the $56 billion MX missile system and not accept "gobbledygook" from the Air Force, a leading American weapon systems expert said in Reno Tuesday.

Dr. Herbert Scoville, former CIA assistant director for scientific investigation, said he opposes the project's proposed "racetrack" basing mode partly because it could increase the risks of nuclear warfare.

In addition, he said he opposes it because its effectiveness depends on having more launch points than the Soviets have ICBM warheads to attack it, and there is no guarantee it can't become obsolete.

Scoville, a longtime government official and noted author, made the comments prior to a public forum on the MX Tuesday at the Sahara Reno. His appearance was sponsored by the newly formed NO MX organization.

Asked whether Nevadans' objections to the MX have been felt in Washington, he replied, "Yes, there's no question about it. The tide is certainly rising against it and that (complaints) has been a big reason.

"Before," he continued, "the MX was something only a few experts back in Washington talked about. Now, the objections have raised their consciousness . . . and have really raised a national debate."

Scoville urged Nevadans to "keep asking questions about it and make sure you get your questions answered. Don't let the Air Force wrap it up in the flag, and don't accept their gobbledygook."

HERBERT SCOVILLE
. . . no 'gobbledygook' . . .

Because of widespread opposition, Scoville said it's difficult to find support for the "racetrack" mode in Washington and predicted it would be killed by Congress next year.

Because the MX threatens a first strike at the heart of the Soviet strategic forces — its land-based ICBM's — it could increase risks of nuclear warfare, he said.

"Nuclear weapons are not for fighting, but for deterence," he said. "The last thing we want to do is get into a conflict and fire missiles at each other."

Scoville said the "racetrack" mode's other major drawback is it could encourage the Soviets to build more ICBM's, which could render the system obsolete.

Scoville threw his support to a submarine-based system, saying it makes "much more sense . . . It would be a difficult target for them to hit since they wouldn't know where it's at."

RENO EVENING GAZETTE 4/11/80

Retired admiral thinks MX should be scrapped

By BILL O'DRISCOLL

The proposed MX missile system should be scrapped because it would be "like honey to a bee" as a target for Soviet weapons, a retired U.S. admiral said Thursday.

Adm. Gene LaRocque said the "cruise" missile — an exclusive American weapon — would give the United States more flexibility than would the 200 land-based MX missiles proposed for the Central Nevada and Utah deserts.

LaRocque, director of the Center for Defense Information in Washington, D.C., said land-based missiles are "obsolete" compared to the cruise missile. The cruise missile seeks its targets through computer programming and can be fired from land, air or sea.

"I think we'd be wise to get rid of any targets in the United States that would act like honey to a bee for Soviet missiles," he said.

LaRocque, who studied "acute submarine warfare" in the Navy, said Trident submarines armed with cruise missiles "wouldn't even have to leave their ports to hit the Soviet Union" if this country were attacked. "They have up to 6,000-mile ranges they can go."

Submarines also would be harder for Soviet forces to find and destroy, he said. "You have to detect a submarine, identify it and destroy it. There's no way for the Soviet Union to detect our subs. But if so, they'd have to identify it, and there are 300 submarines in the world besides those of the U.S. and Soviet Union.

"And we're past masters and so are the Soviets of using decoys," he added.

LaRocque said submarine-launched missiles historically haven't been as accurate as those fired from land, and thus an MX missile would be more accurate than a submarine-fired weapon.

But he noted the cruise missile's flight close to land and its capability of correcting its flight pattern in mid-flight would give the missile "very good" accuracy.

Aircraft armed with cruise missiles also wouldn't have to penetrate Soviet borders to fire the weapons, he said. "All an airplane has to do is send it. I think the days of manned penetration are ended."

The admiral said the estimated $56 billion MX missile system is more "offensive-minded," which could cause the Soviet Union to consider striking first in a crisis.

"If I'm a Soviet planner and you've got the MX, and we have a period of crisis, I'll go after your MX missiles first because I know you've got to the capability of destroying us with it," he said.

LaRocque said the 15-member Center for Defense Information "analyzes Pentagon spending . . . stands for a strong defense . . . and opposes wasting money for things we don't need."

NEVADA STATE JOURNAL 7/15/80

MX submarine fleet 'feasible' — U.S. study

WASHINGTON (AP) - A Pentagon-sponsored study, released Monday, says it appears "technically feasible" to build a fleet of small submarines armed with big MX missiles as an alternative to the controversial land-basing of the weapon.

"However, many technical problems remain for resolution," said a summary of the report prepared by the Navy Sea Systems Command and two firms, System Planning Corp. and Lockheed Missiles & Space Co.

The report estimated a force of 50 small submarines carrying MX missiles in external capsules would cost about $1.7 billion more than the land-mobile system's $33.8 billion, and would become ready six years later.

The Pentagon's currently favored plan for deploying the MX calls for hiding some 200 missiles among about 4,600 shelters spread through desert land in Nevada and Utah.

Opponents of land-basing for the missile cite environmental concerns and say it would be vulner-

(See MX, page 5, col. 4)

MX

(Continued from Page 1)

able to saturation destruction by the Soviets.

As an alternative, some opponents have proposed placing the MX in a new breed of small submarine, which they contend would solve the environmental problem and reduce the weapon's vulnerability.

The new system of smaller submarines would be an adjunct to a fleet of giant Trident submarines which will roam far and deep through the world's oceans, each mounting 24 long-range nuclear-tipped missiles.

The newly released report rejected proposals to deploy small submarines in the Great Lakes or offshore on the continental shelf.

It said a force of submarines deployed in the Great Lakes would be vulnerable to a barrage attack of nuclear weapons and hampered by icing conditions in the winter.

As for deploying submarines on the continental shelf, the report said their survival could be threatened if the Russians exploded powerful nuclear weapons in the water.

The report indicated its finding of apparent technical feasibility applied to a concept of building 50 diesel-powered submarines which would operate in deep ocean waters as far as about a thousand miles from port.

But even with such a system, the report suggested there are serious technical problems involving, among other things:

— The extent to which land-based MX missiles would have to be modified for emplacement in the submarine capsules.

— Significant analysis would be necessary to provide an accurate assessment of the degree of accuracy such missiles could achieve when fired from such submarines.

— "There is a great deal of uncertainty concerning the underwater shock environment," and the design specifications that would be required to compensate for this possible vulnerability.

JAN 8 1981

Stanford scientist: Sub-based MX would save $10 billion

REG 1-8-81

By PATRICK O'DRISCOLL

The Stanford scientist who developed a submarine-based alternative to the controversial MX missile system says the Air Force and Navy both are refusing to give serious attention to his system, which he says would save the nation $10 billion.

Dr. Sidney Drell of the Stanford Linear Accelerator Center, a panelist in a University of Nevada-Reno MX seminar Wednesday, argued that his plan to base MX nuclear missiles on small submarines off American coasts also would improve the weapons' ability to survive a surprise Soviet attack.

The seminar was sponsored by the UNR College of Agriculture. The Air Force said it sent no representative to the seminar because it had not been informed of it. However, university officials said the military was not telling the truth, and they had been in contact with the Air Force on the program since November, but were informed only on Monday that the military would not take part.

Drell, whose "small-sub undersea mobile" idea, dubbed "SUM," has been rejected thus far by the military establishment, said his opponents repeatedly misrepresent the facts about the proposal.

He said that, contrary to Air Force pronouncements, SUM would not cost as much or more than the multibillion-dollar, land-based MX proposal, nor would it take longer to build and deploy.

He said putting MX missiles in small submarines would not weaken the land-sea-air "triad" of strategic defense that the Air Force says makes a land-based MX essential.

Drell said the Navy's reluctance to support SUM, which would put new, World War II-sized subs at sea with two MX missiles each, is tied to the massive Trident nuclear submarine project. "They view a submarine system such as this as a threat to Trident," he claimed.

Another panelist, Allan Torell, partner in Resource Concepts, Inc., explained the "significant impacts" on ranching from MX that his Carson City firm found in a study late last year.

That study, a subcontract job for the firm that prepared the huge environmental impact statement on MX, will be attached to, but not included officially in the impact statement, Torell said.

WHO'S IN OUR HOT TUB?

See page 41

Reno Evening Gazette

Reno, Nevada, Wednesday, February 4, 1981-25¢

A Gannett Newspaper

Sea-based MX getting new attention

By PATRICK O'DRISCOLL

Sending the MX missile out to sea on surface ships is one of several "alternative basing modes" getting attention from the new Department of Defense administration.

But a deputy undersecretary of defense in charge of MX development says he doesn't think new reviews of other ways to deploy the blockbuster nuclear missiles will change plans to put the system on land . . . in Nevada and Utah.

Still, Defense Secretary Caspar Weinberger's comments about a sea-based MX at his first Pentagon news conference Tuesday drew attention to a less-publicized idea to put the 200 MX missiles aboard ships.

He told reporters the idea of basing the controversial missile system at sea "does have some attraction," although he said there are "a number of accuracy problems" with such a basing mode.

In reply to a question, he suggested that the vulnerability of the missiles — the key reason why the Carter Administration rejected a sea-based MX, both in ships and in submarines — could be reduced by deploying "a large number of decoys" at sea.

Weinberger is concerned about mobilizing the MX missile system on schedule, without delay, public affairs aide John Goldsmith said today. He mentioned Weinberger's further comment at Tuesday's press conference that looking at other ways to base MX is particularly prudent if a land-based MX system in 4,600 concrete-and earthen missile bunkers is "going to snarled up with a separate lawsuit over each silo . . ."

Goldsmith added, "But he (Weinberger) doesn't want his review to delay deployment of MX."

Dr. Seymour Zeiberg, deputy undersecretary of defense for strategic and space systems, agreed Weinberger wants a speedy review of the alternatives so development and production of the missile itself won't be held up.

But Zeiberg, whose office oversees the MX missile system's development, added, "You shouldn't assume that anything has changed on the MX program. Everything is going ahead as planned. It's really a review that the administration

NEVADA STATE JOURNAL

FEB 5 '81

Sea-based MX system getting a new study

NSJ 2-5-81

By PATRICK O'DRISCOLL

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(Please see MX, P. 5)

MX

(Continued from page 1)

duced by deploying "a large number of decoys" at sea.

Weinberger is concerned about mobilizing the MX missile system on schedule, without delay, public affairs aide John Goldsmith said Wednesday. He mentioned Weinberger's further comment at Tuesday's press conference that looking at other ways to base MX is particularly prudent if a land based MX system in 4,600 concrete and earthen missile bunkers is "going to be snarled up with a separate lawsuit over each silo . . ."

Goldsmith added, "But he (Weinberger) doesn't want his review to delay deployment of MX."

Dr. Seymour Zelberg, deputy undersecretary of defense for strategic and space systems, agreed Weinberger wants a speedy review of the alternatives so development and production of the missile itself won't be held up.

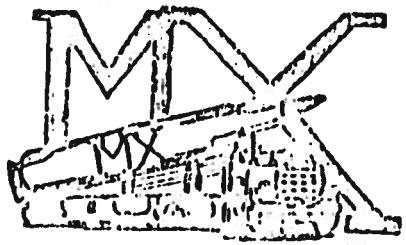
But Zelberg, whose office oversees the MX missile system's development, added, "You shouldn't assume that anything has changed on the MX program. Everything is going ahead as planned. It's really a review that the administration will conduct over the next few months."

Zelberg said Weinberger is "trying to express objectivity" and "indicating his open-mindedness" in reviewing and considering every alternative for basing MX.

But Zelberg and others remain convinced that basing MX on land, in the proposed Nevada-Utah deployment area, is better than putting missiles at sea on subs or ships.

He repeated a familiar refrain among defense and military experts: Don't weaken the "triad" — the three-legged posture of air, sea and land defenses.

Of his office's past negative reviews of the scrapping MX proposals, Zelberg said, "We were not convinced that it offered a totally different survival mode than what we offer at sea now." Unless it were different, Zelberg maintained, it would weaken the triad, the Pentagon's philosophical gospel for more than 20 years.



In a Reader's Digest article last September, "Should Our Missile Force Go to Sea?" one of Weinberger's predecessors, former Defense Secretary Melvin Laird, suggested putting MX missiles on ships.

Laird, the civilian defense chief from 1969 to 1973, argued: "Indeed, it is distinctly possible that we can spread our ICBM [intercontinental ballistic missile] force over much of the 70 percent of the earth's surface that is water and keep it there, constantly moving, far from our shores. Not just in submarines, as we already do, but in surface ships."

Laird's idea included putting missiles on both major combat ships and "ordinary merchant vessels," as well as studying the possibility of building a fleet of high speed ships "whose only mission would be to keep our ICBMs at sea and on the move."

Laird, too, suggested that building more ICBM ships than missiles would provide "a lot of decoys at sea," and he speculated that "no pilot ever want to play an at-sea shell game, periodically switching missiles from one ship to another. Such a deployment would be far more difficult for an enemy to find than a mobile MX force on land, and would be impossible to destroy in a short space of time."

The MX system as now proposed would play the nuclear "shell game" in remote desert valleys of Nevada and Utah, with the 200 missiles shifted periodically over 8,000 miles of roads connecting 4,600 missile shelters — 23 for each missile.

LAS VEGAS REVIEW JOURNAL
MAR 1 1981

Sunday, March 1, 1981—Las Vegas Review-Journal—7B

Ex-Navy missile chief backs sea-launched MX

By Jeanne M. Hall
Staff Writer

The former chief of the Navy's program to develop a sea-launched missile contends basing the MX missile at sea would shave $16 billion from the program, provide just as effective a nuclear deterrent and avoid transforming eastern Nevada and western Utah into a nuclear sponge.

"If you go to sea basing you accomplish some very desirable strategic functions," retired Navy Capt. John Draim said in a telephone interview from his Vienna, Va., home. "You can attack from almost any quadrant. If they (the U.S.S.R.) did attack it, it would not create all the havoc and collateral damage as you would have if an attack was launched against Nevada and Utah."

"It is a simple method of deployment and much cheaper than the MX," Draim added.

Placing the MX at sea would cut $16 billion from the $33 billion price tag the Air Force has placed on constructing the 200-missile, 4,600-system in the desert valleys of Eastern Nevada and Western Utah, Draim projected.

The Reagan administration is examining the sea-basing mode as an alternative basing method President Reagan is expected to make a basing decision by July.

"That is going to be re-examined because we never want to ... and on tests made in the past as to technical feasibility," said John Lehman, secretary of the Navy, in testimony before the Senate Armed Services Committee on Feb. 5.

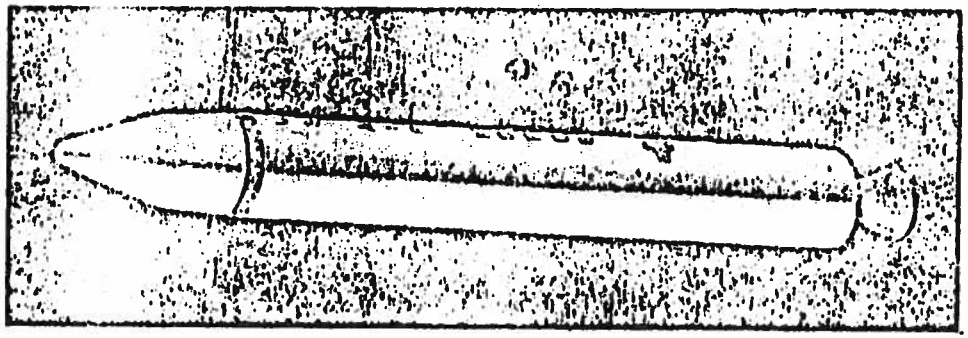
"The problem we face today is the vulnerability of our land-based missile force and it is in that context that HYDRA (sea-basing) is always raised as a cheap and less intrusive alternative to MX basing," Lehman said.

Draim was in charge of the development program for the vertical-floating, or HYDRA, launch in the late 1950s and early 1960s. The missiles were floated in the manner of a spar buoy, and used the ocean as a launch pad.

The launchings were successful, Draim said, and high waves did not affect the missiles ability to lift. Using the HYDRA launch, the Navy successfully blasted probe rockets about 200 miles into space, he said.

"Once the HYDRA missile is developed, it can be either dropped, slid, or rolled from a surface ship; alternatively, it can be floated up from a submerged submarine. By experimenting, the Navy HYDRA team found that almost any variety of ship, barge, or seagoing platform could, with little or no modification, be used as a transporter of HYDRA missiles," Draim wrote in the Dec. 12, 1980 issue of "National Review."

Despite its success, the Navy canceled the HYDRA program in 1965, Draim said.



MX MISSILE
... center of controversy

"We went through the whole thing in sufficient depth to know that we do not believe it was a viable option and dropped it," Admiral Thomas Hayward said in testimony Feb. 5 before the Senate Armed Services Committee.

The Soviet Union, however, has not neglected development of the sea-launch method, Draim said.

"By contrast, the Russian SLBMs (Submarine Launched Ballistic Missiles), which use storable liquids rather than the solid propellants typical of American SLBMs, do employ the floating launch. Being buoyant, these missiles are merely floated up from their launching submarine and then fired at the surface," Draim said.

The Carter administration, which made the decision to proceed with the MX missile system and build it in Nevada and Utah, rejected a sea-basing mode as being too vulnerable to Soviet detection and attack.

"Finding and keeping track of ships and keeping them identified is harder than the Navy says," Draim said. "You can mix them up in the shipping lanes, use decoy ships or transfer the missile secretly to another ship," he said.

In addition to being easy to track, the Navy contends sea-basing the MX missile would raise communications and operational problems, according to Admiral Hayward.

The Air Force has contended the triad (land, sea and air) nuclear defense system is essential to national security. If one leg of the triad system becomes obsolete, which is what Air Force officials say has happened with the current land-based intercontinental Ballistic Missiles, there are the other two legs to fall back on.

Placing the MX missile at sea would create a dyad theory of defense, which the Air Force contends is not as fail safe.

Draim argues the triad theory may be out of date. Rather than looking at the basing mode, defense experts should examine the missile system itself. A complete examination of basic strategic system concepts by the Department of Defense needs to be undertaken, Draim said.

"You could redefine your triad and still have your three different types of systems," he explained.

By basing the MX missile system at sea, money that would have been spent to construct the elaborate launching system, the 4,600 hardened shelters and the 8,400 miles of roadway could be better spent building more missiles, Draim said.

"Laying down more and more concrete is not the answer to our defense problems," Draim wrote in the "National Review" article. "A system based on this simple launch technique (HYDRA) could provide a strategic deterrent much less costly than the present MX system, while at the same time removing the 'ground-zeroes' for enemy nuclear weapons from American soil. Deployed, the sea-based deterrent would truly protect and defend our territory and our people, rather than acting as a magnet for nuclear attack."

Another advantage of sea-basing the MX missile system, Draim said, is that it would have a smaller environmental impact.

"Scarce water supplies in the desert regions would remain unaffected if the sea-based HYDRA-MX were used. The flora and fauna of the desert would remain undisturbed (as would the fish at sea, for that matter), according to Draim.

"Environmentally it is more attractive," admitted a Defense Department spokesman.

The spokesman, however, said basing the MX at sea would not prevent nuclear attack on the United States.

"If a nuclear war was to start, don't you think they would go after all targets," the Defense Department spokesman asked. "There are just no states that don't have any targets."

MX base mode still undecided

NA 3/11/81

By JOHN DIAZ
Appeal Washington Bureau

WASHINGTON — A "political judgment," not technological advantages, will determine how the MX missile system will be deployed, according to the Office of Technology Assessment.

The team of controversial researchers told a House Interim Committee Tuesday that each of the prospective MX basing modes has significant pros and cons from a technical standpoint, leaving the choice to "a political judgment."

The OTA is evaluating the alternatives of placing the missiles in the desert, existing Minuteman silos or at sea.

No matter which method is selected — the White House has set a June deadline for a decision — the OTA panelists said they "are skeptical" that the Pentagon can meet its goal of deploying the MX by the end of the decade.

While the OTA researchers withheld any conclusions of which system might be best, their report contained a large arsenal of ammunition for advocates of any of the three primary schemes.

Submarine-based missiles, for example, would have the best chance of survival against a major Soviet attack but would take the longest to deploy.

A linear alignment of 4,600 shelters in the western desert, on the other hand, would be deployed quicker and be more effective in a limited nuclear war but would carry the most severe environmental impact.

The OTA findings, which countered several key Air Force contentions favoring a land-based system in the Nevada-Utah desert, caused Rep. Jim Santini, D-Nev., to call the pending report "the first independent and objective study of man's largest project."

Santini said he agrees with the Pentagon that there is a need to build the strategic MX missle but argued that sufficient attention has not been given to alternatives to desert deployment.

Unlike Pentagon studies, Santini added, the OTA study has understood overal drawbacks to placing the 200 missles in Nevada and Utah.

The OTA has found that Air Force projections understate the likely number of missiles and area of land that will be necessary for the MX.

If the Soviets were allowed to build up their missile forces unconstrained by an arms-limitation agreement, the OTA reported, the ultimate number of MX shelters could balloon from 4,600 to 15,300 by the year 2000.

This could compound the expected environmental, social and economic impact on rural Nevada and Utah communities, the OTA study said.

"However, it is not certain that the Soviets would attempt to build

(See MX, Page A-8)

MX base mode effectiveness may depend on Soviets' moves

(Continued from Page One)

as many re-entry vehicles as they could in order to overwhelm MX," Dr. Peter Sharfman of OTA testified. "One of the characteries of MX is that it makes their (Soviet) silos vulnerable and they may choose to put their rubles into reducing their own vulnerability."

Much of the questioning from subcommittee members zeroed in on the submarine versus desert basing options. Some lawmakers wondered whether the Air Force's objections to submarine basing were based more on inter-branch rivalries than technical judgment.

Alluding to the struggle, the OTA noted "There are serious institutional problems raised by putting an Air Force missile on a Navy submarine.

The OTA, however, also supported several Air Force contentions favoring a linear alignment over a sea-based mode.

While the accuracy of the desert-based missiles "would be unprecedented," the OTA noted the relative accuracy of submarine-launched warheads is undetermined.

But the OTA experts added steps could be taken to give the submarines "most of the flexibility and weapon effectiveness of the land-based inter-continental ballistic missiles (ICBMs) As examples, they suggested the use of satellite guiding equipment and moving the submarines near Russia, such as in the Gulf of Alaska.

Disadvantages to a small submarine system for the MX, as identified by OTA include:

• There would be "local impacts" associated with the constuction of the large bases — perhaps as many as three — that would be required for the system. The system would also need "highly skilled personnel not currently available.

• Shortages of manpower and materials could delay the system. OTA reported that U.S. shipyards with the expertise and facilities to build submarines "are already backlogged."

• Uncertainity. "Weapon system effectiveness depends on a complex set of interdependent technical issues which are still to be resolved," the OTA preliminary study said.

Other potential MX basing modes under OTA study include using the existing Minutemen silos, merchant ships or aircraft.

• Rep. Dan Marriott, R-Utah, concerned that the $56 billion missile system would interfere with mining and energy production in his state, asked OTA experts whether the "best solution" might be to upgrade the Minuteman system.

• Marriott said the "launch under attack" strategy behind a Minuteman deployment mode might be a more effective deterrent to the Soviets than a survivable U.S. desert-based MX system.

"We could put our money into early warning systems," he said.

However, the OTA panelists said a launch-under-attack missile force is "plainly unsuited" for a limited or prolonged war.

And, Sharfman added, the Soviets could knock out communication and warning systems.

"Decision-makers might well lack crucial information at the time when a launch decision would have to be made," he said.

Defense agency plans new MX base study

By PATRICK O'DRISCOLL
Journal staff writer
and Journal wire services

NSJ 3/13/81

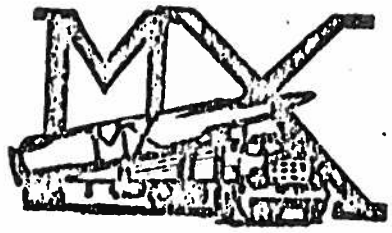
The Department of Defense plans to start a new, independent study of MX missile basing modes by April 1, a ranking defense official said Thursday.

Seymour Zelberg, deputy undersecretary of defense for strategic and space systems, confirmed that Defense Secretary Caspar Weinberger is recruiting "an outside group of distinguished people" to review once more the numerous methods suggested for basing the controversial new nuclear missile.

Meanwhile, representatives of the General Accounting Office hurled verbal bombs of disbelief at the Air Force draft environmental impact statement on the huge MX missile system proposed for Nevada and Utah, saying it has numerous flaws.

Defense officials said Weinberger is recruiting engineers and other outside experts for a team to reconsider 35 different MX missile deployment schemes that had been examined in the past and discarded by Defense Department technical committees and independent "think tank" organizations.

The new review follows an "in-house review" of MX basing modes, said Zelberg, a Carter administration holdover



who oversees MX missile development.

Zelberg, who favors the Air Force proposal to base 200 MX missiles in 4,600 concrete shelters in Nevada and Utah, said he doesn't believe any new information will be learned from the review. He said Weinberger wants the study so the Reagan administration can consider the MX on its own.

The study is the latest move in Weinberger's developing stance on how the multibillion-dollar missile should be based. He ultimately will recommend a method of basing the missile system to President Ronald Reagan, probably in June.

Early in his Pentagon tenure, Weinberger seemed to lean toward basing the missiles aboard surface ships at sea, rather than on land in the arid West.

But last month, a Pentagon spokesman said Weinberger had come

(Please see MX, P. 8)

MX

(Continued from Page 1)

around to the view that sea-basing is "a very long shot."

Still, Weinberger has indicated he wants a plan that would avoid a series of prolonged environmental lawsuits that could delay land-based deployment of the missile by its mid-1986 target date.

A congressional investigator threw a little more cold water on land-basing of MX in his testimony Thursday before the House Interior Committee's public lands subcommittee.

Hugh J. Wessinger of the General Accounting Office said the Air Force's 1,900-page draft environmental impact statement on MX, which makes a case for basing the system in Nevada and Utah, was marred by weaknesses in the way information was collected, the report's bulky size and the "several questionable assumptions" it makes.

Rep. Jim Santini, D-Nev., asked for the GAO report after the Air Force released its draft impact statement last Dec. 18. Santini, who called the environmental impact statement "superficial," said it "represents a hurry-up, patchwork attempt to comply with the letter and not the spirit of the law."

Rep. James Weaver, D-Ore., had even harsher words: "I have no trouble styling the draft EIS as a $20 million farce and note that even Hollywood has done better."

To almost every question posed by congressmen, Wessinger and other GAO officials answered, "That was not addressed in the EIS (environmental impact statement) . . . We have no specifics on that. Again, the statement was shallow."

The Air Force's MX impact statement said the projected effects on natural resources and residents of the Nevada and Utah desert valleys, where the MX would be based, "are not negligible, (but) they certainly are manageable."

But Wessinger testified the Air Force's assumptions on the easy availability of water in the arid Great Basin are questionable.

In addition, he said the estimate of 85,000 people being drawn to Nevada and Utah during construction is low, and he disputed the Air Force's contention that wilderness study areas would not be touched by the project.

"It seems inconsistent that the Air Force would include Coyote Spring Valley as one of the suitable locations for an operating base because parts of the valley are included in three current wilderness study areas," the GAO report said. "Siting at Coyote Spring (northeast of Las Vegas) clearly violates the Department of Interior policies and the Federal Land Policy and Management Act."

Wessinger also said the Air Force report assumed the MX system would involve 200 missiles rotated in "shell game" fashion among 4,600 land shelters, when it is very possible that a larger operation may be needed even if a new strategic arms limitation treaty is negotiated with the Soviet Union.

The Air Force plans to issue a final impact statement in mid-June, but Wessinger said he wonders whether that tight a schedule can produce a report "of sufficient reliability."

LAS VEGAS REVIEW-JOURNAL 3/14/81

Defense rift develops over MX

Walter Pincus
L.A. Times/Washington Post News Service

WASHINGTON — Defense Secretary Caspar W. Weinberger has refused so far to support land-basing for the new MX intercontinental missile, and his position has deepened the rift between him and defense hardliners within the Reagan administration and in Congress.

Weinberger has said his concern about the system, which would scatter some 200 MX missiles among 4,600 concrete shelters in Nevada and Utah, is partly that expected environmental lawsuits could delay deployment beyond 1986.

Weinberger's latest action, to appoint a panel of non-government experts to review deployment of the MX missile, was drawing fire from his critics Friday; they fear the committee will give the basing system only mixed reviews.

The panel, to be chaired by Dr. Charles H. Townes, a Nobel Prize winner now at the University of California at Berkeley, is to report to Weinberger before June 1, the date on which the MX basing decision is now scheduled to be made.

Although Weinberger characterized the group in a television interview Wednesday as having "impeccable credentials," a top-ranking military man noted that one of those on the list, Dr. Wolfgang K.H. Panofsky, had led the opposition in 1969 to the anti-ballistic missile, and now advocates putting the MX out to sea in a submarine.

Another source within the Reagan White House said that the panel "was bound to come in with some dissenting views" on the cntroversial land-basing system for the MX, making it even more difficult to sell to the public.

Still another administration source indicated that Secretary of State Alexander M. Haig Jr. may be applying pressure to have the MX decision made in favor of the currently approved basing plan.

Haig, according to this source, told his colleagues at a recent National Security Council meeting that the European NATO members were watching how the Reagan team reacted to opposition to the MX basing because there is political pressure in their countries against the current plan to put new medium-range missiles in England, West Germany and Italy.

A Capitol Hill source pointed out that Weinberger, at a closed-door session of the House Armed Services Committee Tuesday, refused to give his support to a basic principle of the defense establishment: the need for a land-based ICBM system that could not be destroyed by a Soviet first strike.

He "would not commit to a land-based, survivable missile system," according to this source, even when pressed by Rep. Robin Beard, R-Tenn., one of the leading congressional advocates of a stronger defense.

Weinberger has made it clear that he is in favor of building the MX missile, which will carry 10 separate hydrogen bombs, each with explosive power equivalent to 335 kilotons, or 335,000 tons, of TNT.

Because of the size of the MX, it cannot be fitted on any U.S. submarine now being built. Weinberger flirted briefly after taking office with the idea of putting the missile on surface ships, but reportedly was talked out of that by both Air Force and Navy officers who pointed out how vulnerable to attack the ships would be.

Pentagon officials and defense experts, who have been studying the problem of basing the new missile for almost 10 years, point to the decision of the Carter administration, which was not considered hardline on defense, as proof that the present multishelter plan, costly as it may be, is the only way of assuring an ICBM that could survive, and thus deter, a first strike by Soviet missiles.

One Pentagon source said the military services have begun pointing out that Weinberger's fear of environmentalist lawsuits on the MX is ironic, "given that this is the same administration that has approved drilling for oil off the Santa Barbara coast and moving against regulations particularly in the environmental field."

NEVADA APPEAL, 3/17/81

Weinberger favors MX ship basing

WASHINGTON (UPI) — Defense Secretary Caspar Weinberger would like to base MX intercontinental ballistic missiles aboard ships at sea instead of provoking the wrath of environmentalists by burying them beneath Utah and Nevada.

Pentagon officials have dismissed his idea as an impractical alternative to the Air Force plan for deploying the new missile, but the possibility of basing the MX on or even under the sea gained new ground Monday.

Weinberger appointed three naval experts to a 15-member panel that will recommend a basing mode for the MX by July 1, when a decision is due on where to put the 10-warhead missile.

The panel is chaired by Dr. Charles Townes, a Nobel Prize-winning physicist at the University of California at Berkeley.

Weinberger has expressed concern about an Air Force proposal to shuttle 200 of the missiles among 4,600 shelters in Utah and Nevada. Environmentalists and economists have warned the complex system would have an adverse impact on those states.

A great deal of Weinberger's concern centers on lawsuits that could be brought against the basing

(See WEINBERGER, Page A-10)

Weinberger appoints MX basing panel

(Continued from Page One)

program, thus delaying deployment of the missile beyond 1986. The program is estimated to cost more than $40 billion.

Weinberger has mentioned the possibility of deploying the MX aboard small surface ships, while other proposals would place them aboard submarines.

The appointment of three naval experts to the panel suggests Weinberger has not totally dismissed the concept of sending the missile to sea, in part to make it more invulnerable to Soviet attack.

The land-based shuttle system also is designed to prevent Soviet detection.

The naval experts include Retired Adm. Worth Bagley, who specializes in surface ships, and Prof. William A. Nierenberg, an authority on antisubmarine warfare and oceanography. He is director of the Scripps Institution of Oceanography at the University of California at San Diego.

The third is R. James Woolsey, a former undersecretary of the Navy and an expert on nuclear force balance.

Other panel members:

Retired Air Force Lt. Gen. Brent Scowcroft, a National Security adviser in the Nixon administration; former Deputy Defense Secretary David Packard, who served in the Nixon administration under Melvin Laird; Lt. Gen. A. J. Goodpaster, superintendent of West Point; Dr. Solomon J. Buchsbaum, a former member of Pentagon advisory boards who is executive vice president, Customer Systems, Bell Laboratories; Dr. Simon Ramo, a technical adviser to the Air Force during development of the first ICBM and an adviser to President Reagan; Dr. Henry Rowen, an economist at Stanford University and a past president of the Rand Corp.; Retired Air Force Gen. Bernard Schriever, an ICBM expert; Dr. Albert Wheelon, a space communications expert and vice president and group manager of Hughes Aircraft Co.; Stephen Aties, an attorney who chaired an independent review of the environmental impact of MX; Retired Air Force Lt. Gen. Glen Kent, who chaired an MX review board last year; and Dr. Michael May.

RENO EVENING GAZETTE 3/19/81

Committee to study, recommend alternatives to MX deployment

By SHEILA CAUDLE
Gannett News Service

WASHINGTON — An independent panel will be given total freedom to recommend alternatives for deployment of the massive MX missile system, a Defense Department specialist said Wednesday.

But during questioning by congressmen, Dr. Seymour L. Zeiberg also said the Air Force has been proceeding on the assumption that the system will be land-based in Nevada and Utah.

Zeiberg, appearing before a House Appropriations subcommittee, also said the "myriad of lawsuits" expected over the MX environmental impact statement don't bother him as much as the prospect of court injunctions.

Zeiberg said Defense Secretary Casper Weinberger has charged the independent study panel, consisting mostly of civilians although several are retired military men, with "examining all reasonable alternatives" to MX deployment.

"This is being done in the spirit of full objectivity," said Zeiberg, deputy undersecretary of defense for strategic and space systems.

Congressmen on the panel questioned that statement, noting the Air Force already has signed several subcontracts dealing with the MX and where it will be based. Those contracts, the legislators suggested, meant that the decision already has been made and the panel study would be, in the terms of one, "a farce."

But Zeiberg, himself a proponent of the land-based concept in which 200 nuclear missiles would be shuttled among 4,600 concrete shelters to avoid detection, said the panel "has a free license on the subject. The secretary has made it clear that the panel has every option to do whatever they think is appropriate."

One congressman said the panel is being established "just to placate somebody because the decision has been made."

But Zieberg said, "That somebody is the president. It's not a pro forma review. It's a serious review."

The dozen-member panel, whose chairman is Dr. Charles Townes of the University of California, will meet April 1, Zeiberg said, and have been told to make recommendations to Weinberger by July 1.

Zieberg said the panel will not have to plow new technological ground; all the information on the various systems is being readied for its review and a decision shouldn't take too long.

"The administration has indicated that before making any final commitment, it will review all the alternatives so what we do is in the best interest of the country," he said after congressmen once more questioned the effectiveness of the independent panel.

Rep. Ralph Regula of Ohio said it appeared the work will be only for form, citing an $11.8 million contract that already has been awarded for MX operating base design.

To that, Zieberg replied, "As long as the land-basing mode has a chance of being accepted, it's necessary to keep on track. You can't turn big projects on and off . . . The design of that facility is on the critical path to the initial operation."

The Air Force still hopes to begin building the MX system next spring, with the first 10 missiles operational by mid-1986 and the whole system running by the end of 1989.

The Appropriations subcommittee also questioned the missile system's effect if it is land-based instead of operating from the sea or the air.

Surely, members said, environmentalists will file lawsuits to block construction.

Zeiberg said environmental impact hearings scheduled soon by the Air Force might answer enough questions to defuse lawsuit threats. "Lawsuits won't bother us," he said in a lighter moment.

LAS VEGAS SUN 3/29/81

Underwater Missile A Step Backward?

U.S. Defense Secretary Caspar Weinberger, who said the MX "shell game" basing concept proposed by the Air Force is an expensive and impractical solution to the Minuteman vulnerability problem, recently named a 15-member panel to review the ICBM basing options rejected by the Carter Administration.

This Sunday series will examine, in brief, a number of alternatives to "multiple protective shelter" deployment.

By GARY C. GERARD
SUN Staff Writer

In 1976, Dr. Richard Garwin, former director of applied research at IBM, and Dr. Sidney Drell, director of the Stanford Linear Accelerator Center, approached Congress and the Defense Department with a plan to deploy American intercontinental ballistic missiles at sea.

The "Shallow Underwater Missile" concept, hereafter referred to as SUM, was brought before members of the House Armed Services Committee 1979 and discussed on the Senate floor during the fiscal 1980 Defense Department budget hearings.

Pentagon officials, however, shelved the plan in 1980 because "the initial high hopes for the SUM concept were not sustained when thorough technical analyses were performed" and "deploying SUM would represent a step backward in U.S. sea-based missile system capability."

Garwin said SUM would be cheaper than building 4,600 concrete MX missile shelters in the Great Basin, and have simpler communications and guidance systems than existing submarine-launched missiles.

"When the submarine wants to fire a missile, it releases a capsule which bobs to the surface and fires the missile as the missile breaks the surface of the water," Garwin said in a letter to Oregon Sen. Mark Hatfield.

"It should be noted that recognition of the desirable aspects of the SUM system for invulnerability of basing and low operating cost go back to the mid 1960s," Garwin said. "The technical preference was clearly toward the use of a 'wooden round,' or low-maintenance missile, which would be carried in a horizontal capsule outside the pressure hull of the submarine."

The idea was to mount two MX — or four Minuteman III — missiles on the outside of a small diesel-electric submarine, similar in design to the HDW-600 manufactured by a West German shipbuilder.

However, a technical report prepared by Defense Secretary Harold Brown's office concluded that all "submarines already designed would require extensive structural modification to support missiles capsules at or near the surface."

In addition, "The HDW-600 has about 10-percent reserve buoyancy. With the two MX capsules, buoyancy would drop to about 4 percent, which is insufficient for safe operation.

"Because the HDW-600 was not designed for a strategic mission, the existing submarine lacks space for sonar, missile control and support, navigation and communications."

An April 9, 1980, report on SUM prepared for Dr. Seymour Zeiberg, deputy defense undersecretary for research and engineering, noted that SUM "is unlikely to be cheaper than MX."

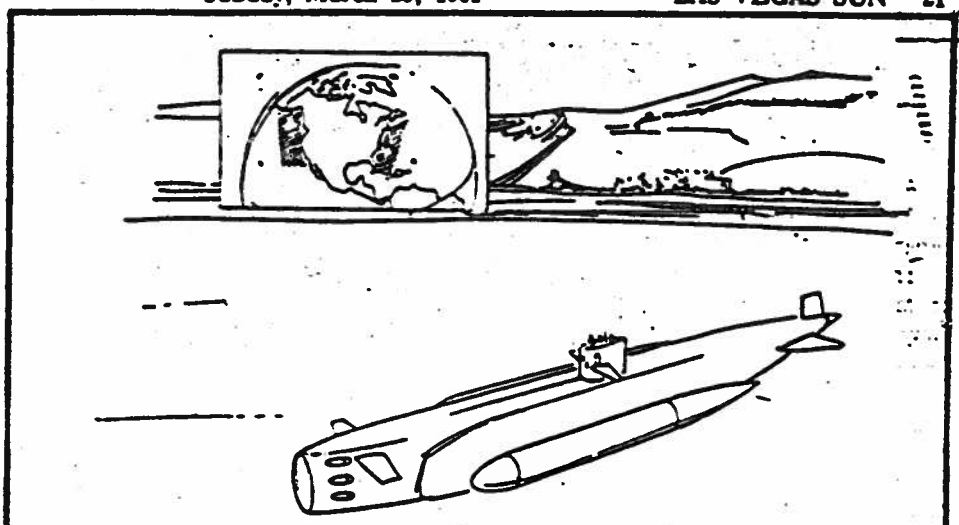
Moreover, "SUM must operate in deep waters as a short-range submarine with no apparent advantage over conventional design ballistic missile submarines" — namely Polaris, Poseidon and Trident.

"Therefore, substituting SUM for MX would represent abandonment of the Triad in favor of a Dyad of bombers and submarines."

A May 1980 "Assessment of Small Submarines and Encapsulation of Ballistic Missiles" prepared by the System Planning Corp. of Arlington, Va., the Naval Sea Systems Command and the Lockheed Missiles and Space Co. came up with these findings:

"It appears technically feasible to build, deploy and logistically support small submarines with encapsulated missiles. However, many technical problems remain for solution," the report notes.

"In water that supports the formation of convergence zones and long-range acoustic



A sketch of the Shallow Underwater Missile

propagation, the diesel-powered submarines could be vulnerable to detection and tracking by high-gain towed arrays."

Moreover, "Of the non-acoustic sensors examined, satellite and airborne radar appeared to pose the greatest threat against the diesel-powered submarine."

Recently, in their March 10, 1981, preliminary report on MX basing alternatives, Drell and 16 other members of an Office of Technology Assessment review team said, "It is technically feasible to build, deploy and logistically support MX on diesel-electric submarines.

"However, the small submarine system could have a common mode of failure with Trident and Poseidon if an unforeseen anti-submarine threat developed in the future."

The report added: "There are logistical and industrial problems which would delay submarine and base construction schedules into the early 1990s. U.S. shipyards, which have the expertise and capabilities to build submarines, are already backlogged and there are shortages of skilled workers needed for submarine production."

(Next week: Putting MX missiles on board surface ships.)

LAS VEGAS VIEW-JOURNAL 3/30/81

PRESIDENT REAGAN
...questions about MX

Reagan questions MX plan

L.A. Times/Washington Post
News Service

WASHINGTON — Expressing a grim view of U.S. relations with Moscow, President Reagan said in an Oval Office interview that he will refuse to lift the grain embargo at this time and that any summit meeting with the Russians would have to include discussion of "the imperialism of the Soviet Union."

During a 40-minute interview with The Washington Post, reviewing his first two months in office, the president said he entered office wanting to lift the grain embargo, as he repeatedly promised to do during the campaign. But, he said, "I do not see how we could lift it at this time without sending the wrong signal."

In his first private White House interview with a newspaper, Reagan expressed himself on a number of crucial policy questions:

—The president has serious doubts about Pentagon plans for land-basing of the MX intercontinental missile because that scheme is "so elaborate, so costly, and I'm not sure that it is necessary or would be effective." He said he supports the idea of the MX missile, intended to protect the United States from Soviet missile attack, but the question of whether the MX should be sea-based, land-based or kept in conventional missile silos is wide open.

—Reagan would like to provide U.S. food to aid the hard-pressed Polish people, but such a decision would be contingent upon whether there is a Soviet invasion of Poland or internal suppression of the free trade-union movement.

—The new administration's

See MX, Page 2A

MX

From Page 1A

focus of U.S. policy in southern Africa will be to seek a peaceful solution of the Namibian crisis. "We think it begins with an election ... that just as we did in Zimbabwe should follow the adoption of a constitution that guarantees equal rights to all people in that country, property rights, minority rights," Reagan said.

—The president described the government of Angola as a puppet "dominated by the presence of Cubans, surrogates for the Soviet Union." He said he sympathizes with the anti-Marxist Angolan rebels, but he complained that U.S. ability to aid the Angolan rebels is restricted by the Clark amendment, which the administration wants Congress to repeal.

—Reagan gave mixed signals on how he will resolve one of the most important arguments in his young administration: The question of whether to restrict Japanese auto imports. He described himself as a believer in free trade and an opponent of "protectionism," but observed the Japanese had spoken of observing "voluntary restraints" in their export policies.

Reagan's questioning of the present proposal to scatter 200 MX missiles on a drag-strip system through the Nevada and Utah deserts is a blow to Pentagon and congressional hard-liners who have argued that present national security estimates are dependent on this basing system.

It indicates that the president shares the skepticism expressed by Secretary of Defense Caspar W. Weinberger, who argues that environmental lawsuits could delay land deployment of the MX system beyond 1986. Weinberger has appointed a panel of experts who will report back to him by June 1 on the best solution.

A number of Western politicians in the region of the country where Reagan has the strongest support have objected to the desert deployment of the MX. But Reagan's questioning of the land-basing system goes beyond the rangeland it would require.

"It's not only that," he said. "It's so elaborate, so costly, and I'm not sure that it is necessary or would be effective. It's again an indication of this whole effort such as in the SALT talks to have verifiability so you can create a great, elborate, costly system in which you can hide the missile except that the enemy has to know the missile is there. And it doesn't make much sense to me."

The president was asked if his reply means that sea-basing of the MX is under consideration.

"I think there are any number of (options) ranging all the way from silos such as we presently have," Reagan replied. "Silo, sea-based, they're all being looked at."

The presidential interview, conducted Friday afternoon, reflected Reagan's customary optimism as he discussed the range of problems facing his administration.

NEVADA STATE JOURNAL 3/24/81

Navy men float their ideas on MX

By SHEILA CAUDLE
Gannett News Service

WASHINGTON — The MX missile battleground went to sea Monday.

A fleet of Navy men and other defense experts suggested a variety of ocean-based alternatives to deploy the large MX missile as a deterrent to the Soviet nuclear threat.

At the same time, the sea-basing proponents tried to scuttle the Air Force's plans for a massive missile system based on land — great swaths of land in Utah and Nevada.

Those at a special congressional briefing Monday heard no one talk about the proposal for shuffling 200 missiles among 4,600 shelters in a racetrack system running across Nevada and Utah. That's because no one from the Pentagon sent a representative, although an invitation was extended.

So the session was dominated by those who favored putting the missiles on surface ships or small submarines.

Although the Reagan administration seems committed to the MX missile itself, its deployment has charted an unclear course. Defense Secretary Casper Weinberger has asked for an independent panel to make its basing recommendations by July 1, and a decision is expected after that.

Monday, those testifying scoffed at the racetrack proposal for the two western states. Retired Adm. Thomas H. Moorer, former chairman of the Joint Chiefs of Staff, argued the land-based system should be scuttled.

Moorer, his voice sometimes rising to a shout, said that a sea-based system would be much cheaper than the land-based one, and the fallout from a strike on the concentrated racetrack region would be disastrous.

He struck out at land-basing proponents who vow that the Soviets wouldn't be able to detect missiles that could be moved from one shelter to the next, but that missile-carrying ships

(Please see MX, P. 5)

MX

(Continued from Page 1)

and subs would be easy targets.

"Everything is vulnerable when you drop a nuclear weapon on it," he said to the laughter of congressmen and congressional staffers packing a Capitol room. "There are, for example, more than 10,000 ships on the sea lanes. If they were on ships, the Soviets would have a hell of a time finding them."

The retired joint chiefs chairman also questioned some who say that it would take too long to build subs for the MX. He said the missiles could be put on surface ships as an interim step. Then they could go on the subs when they were ready.

Sidney Drell, a Stanford University scientist, joined Moorer in his argument. "I think the subs are the ultimate answer," he said. "The ships are gap-fillers until the subs could be deployed in the late 1980s."

Much of the discussion centered on how many U.S. missiles would survive in the event of a Soviet strike. Drell said any policy must be tailored to the current threat, while Moorer took issue with the U.S. policy of gearing its systems to a defensive posture, assuming someone else will strike first.

Las Vegas Sun 3/30/81

LV Sun 3-30-81

Landed MX Would Shoot Budget

By GARY C. GERARD
SUN Staff Writer

Deploying a land-based MX in the Great Basin would, in the long run, "hopelessly complicate" Reagan administration attempts to balance the federal budget, an aide to the Senate Appropriations Committee chairman said.

A Soviet build-up of strategic nuclear forces in the absence of SALT II, the aide said, would force the United States to double, even triple, the size of the Air Force's proposed MX "shell game" missile system.

Jack Robertson, Oregon Sen. Mark Hatfield's foreign policy and national security adviser, said escalation of the nuclear arms race would force the Air Force to build more MX missiles and concrete shelters.

That, Robertson said, would end up costing American taxpayers $175 billion. The General Accounting Office had estimated the cost of building 200 missiles and 4,600 shelters at $56 billion. The cost figures are in 1989, inflation-adjusted dollars.

The Republican senator's aide said Defense Secretary Caspar Weinberger, who recently named a 15-member panel of non-governmental experts to review MX deployment options, should support the sea-based "Shallow Underwater Missile" concept.

SUM, developed in the late 1970s by former White House defense consultants Richard Garwin and Sidney Drell, envisions a fleet of conventional submarines patrolling the open sea with MX missiles.

Robertson said "SUM makes more sense than the MX grid scheme proposed by the Air Force" and "answers the need for a strong national defense and a balanced federal budget."

Critics of the SUM concept argue that making MX a "blue water" weapon would weaken the strategic Triad of nuclear forces — which consists of B-52 and FB-111 bombers, missile-carrying deep water submarines, and silo-based Titan II and Minuteman missiles.

The Air Force has said that the United States would be left with a "vulnerable" Dyad of strategic forces -- bombers and missile-carrying subs — if SUM were adopted as Defense Department policy. Sen. Hatfield, however, argued that SUM would add, not eliminate, a leg to the Triad.

"There are no technical problems with SUM," Robertson said. "The problems are political. The Air Force simply does not want to lose control of the missile."

He said, "If you look at the environmental, economic and strategic elements of SUM and grid-based MX, SUM comes out ahead."

SUM, Robertson said, would cost $35 billion and "never will have to be added to." The sea-based concept also "does not require an Anti-Ballistic Missile defense," which would require the abrogation of the ABM Treaty signed in 1972.

LAS VEGAS SUN 4/1/81

Placing Of MX Missiles In Great Basin Up In Air

By GARY C. GERARD
SUN Staff Writer

Defense Secretary Caspar Weinberger said this week that the Great Basin may not be the best place to hide a fleet of MX intercontinental ballistic missiles.

However, he reserved comment on where he preferred to see the nuclear weapons based.

"I have not made up my mind necessarily," Weinberger told the SUN during a telephone interview Monday.

Selection of the MX deployment area, he said, "will depend almost entirely on its technical, strategic and military aspects."

The secretary, who has expressed concern about Air Force plans to bury 4,600 concrete missile shelters in the Nevada and Utah desert, recently named a 15-member panel of non-governmental experts to review all of the MX basing options rejected by the Carter administration.

The review team, chaired by University of California-Berkeley physicist and Nobel laureate Dr. Charles Townes, has been asked to report to Weinberger "before the end of June."

Weinberger, testifying before the Senate Armed Services Committee in February, said he "would like to see MX based at sea if it can be done."

A great deal of Weinberger's concern centers on lawsuits that could be brought against the Air Force.

CASPAR WEINBERGER

The defense project's estimated cost — $56 billion, according to the General Accounting Office — also worries Weinberger, who earned the nickname "Cap the Knife" for his fiscal restraint as President Nixon's budget director.

"Cost will be a driving consideration," the secretary said. "Obviously, if one alternative is enormously more expensive than another, we want to be able to justify it."

Weinberger said he does not, and would not, endorse a plan that called for building half the MX system in the Great Basin, and half in New Mexico and western Texas.

This "split-basing" concept, detailed in a Defense Department report presented to Congress in January, would cost close to $3.5 billion more than the Air Force's Great Basin deployment plan and enjoys "no military advantages," Weinberger said.

"You gain little by doing that," he added.

The secretary, on another matter, said he was "generally familiar with the argument" expressed by a handful of lawmakers on Capitol Hill that funds to develop the MX should be frozen until the United States ratified a new SALT agreement.

Weinberger, however, argued that the United States cannot afford to sit back while the Soviet Union stocks its strategic arsenal.

"We want to meet the planned operating capability scheduled for mid-1986," Weinberger said. Ten MX missiles are to be activated that year, while all 200 missiles would be "on alert" in 1989.

"It's very important to keep those dates," he said.

Reno Evening Gazette

Reno, Nevada, Friday, May 1, 1981—25¢

A Gannett Newspaper

List: MX will ruin Nevada

By JACK McFARREN
Gazette Capital Bureau
and PAMELA GALLOWAY FAY
Gazette staff writer

Location of the MX missile system in this state would "obliterate the heart of Nevada," Gov. Robert List said today.

"While this nation needs an MX missile system for its national security, to put it in the state of Nevada would cause horrendous effects here," the governor said in his strongest statement yet on written reply to the Air Force's draft environmental impact statement on MX.

List said the 1,900-page, nine-volume Air Force document is "fundamentally flawed" and "woefully inadequate."

"I've called upon the Air Force to resubmit a revised environmental impact statement to this state for review and comment," he said.

"As written now, it's incomplete, it's inadequate and it's inaccurate in many respects. The Air Force has simply failed to live up to its responsibilities."

List also would not rule out the possibility of legal action by the state over the document, which makes the Air Force's case for putting more than two-thirds of the 200-missile, 4,600-shelter MX system in Nevada, with the rest in Utah.

The Air Force study of MX's potential effects on Nevada's human and natural environments is so full of holes "it's like a piece of Swiss cheese," the governor added.

An Air Force spokesman replied today that "everyone knew there were problems" with the impact statement but that it was a draft, intended to allow comments like List's, and then incorporate the response into a final report.

"The purpose of the environmental impact statement is to let the people in deployment areas know the impact and to allow comment," said Maj. Ron Huff, the Air Force's MX liaison to Nevada. "We are glad for the response. The Air Force has a responsibility to respond to every comment."

A Pentagon spokesman today said government officials have not had time to examine List's statements but would address all the issues raised by the governor.

While damning the Air Force document, List lavishly praised Nevada's 1,200-page response.

He called the four-inch thick, two-volume docu-

(Please see LIST, P. 17)

*List releases state MX reply

(Continued from Page 1)

ment "an unprecedented effort by Nevadans to truly measure the impact of the system."

Nearly 400 Nevadans, mostly volunteers, served on teams which reviewed the MX impact statement from 31 different perspectives and subjects.

"The document leaves no stone unturned . . . It truly and accurately states the state's concern in a number of very, very critical areas," the governor said of the state report.

List said the response was submitted to the Air Force late Thursday to meet today's required deadline for public comment on the draft impact statement, which the Air Force released last Dec. 18.

Preliminary copies of Nevada's MX report were leaked to reporters in March, and many of the teams' comments carried dire predictions and scathing criticism of the impact statement.

In particular, the quality of life team wrote of "substantial and irreparable changes in the state's quality of life."

List agreed. He said in his cover letter to Air Force Secretary Vern Orr that the MX project represents a threat to Nevada's quality of life. "It means a loss of solitude, of open space. That part of Nevada will be gone forever," he said.

Referring to the impact statement, List said, "Fundamental flaws permeate the entire report. Vital areas of concern are either not addressed in detail, or ignored completely.

"There are fundamental areas of concern that are not addressed or are addressed inadequately and incompletely.

"No where in this 1,900-page draft environmental impact statement is there a complete inventory of the land that would be utilized or withdrawn or disrupted by the MX system."

List asked, "How can anybody adequately judge the environmental impact of a project without knowing which part of the environment is going to be impacted?"

The state's official response indicates five major areas of fundamental weaknesses which run through statement:

• Lack of adequate project description.

"You cannot read this and find out where it is this system can be put with any specificity," said List.

The statement also does not address the problem of area vs. point security, the governor said.

If fencing off each individual missile system does not allow the Air Force to adequately conceal the location of the missles, the potential exists for fencing off the entire area, he said.

"That's a vastly different impact on the people of this state and our access to the land and resources of Nevada," he said.

• Lack of appropriate "tiering document."

Over the past several months, the Air Force narrowed its MX plans down to Nevada without adequate public comment, analysis, advice on other options such as submarine basing, or retrofitting the existing Minuteman missile system.

Alternatives were eliminated without going through the same impact statement and public comment process, List said.

• No mention of cumulative effects of other projects on the region, including energy and synfuel projects.

Such projects "will have an enormous drain upon manpower, resources and materials," List said.

• Lack of time for public comment.

"We've had 120 days from the time we got the original document, but only 90 days from the time we got all the technical backup review materials," List said.

"Those constraints have been so significant, we haven't been able to do as much work or get into as much detail as we should have been allowed."

• Future expansion of the MX project is not addressed.

Federal officials have indicated it might be necessary to expand the system to as many as 15,000 missile shelters as opposed to 4,600 which are presumed to be the limit, according to the impact statement.

"The difference, of course, is a minimum of threefold," List said. "The law requires when you do a (impact statement), you honestly address the full potential and scope of the project. This does not."

Responding to List's charge that as the Soviet Union beefs up its military presence, MX would have to expand, Huff said the Air Force has no plans to expand the project beyond 4,600 missile shelters.

The argument that unrestrained Soviet growth would result in more shelters and missles does not consider that other methods could be instituted to counter the Soviet Union, he said.

"MX is not the only way to respond. We could build up our submarine system, or our airborne system, or our antiballistic missle system. The state has brought this up before, and other agencies have looked at it as . . . the only thing we could do to overcome Soviet buildup."

Responding to List's criticism that other areas were not considered for MX placement, Huff said many other areas were considered originally, but potential sites were narrowed to Nevada-Utah and New Mexico-Texas because others did not fulfill certain land and water requirements.

Before work on the environmental impact statement was begun, he said, some 50 different areas were considered in Nevada, California, Arizona, Nebraska, New Mexico, Colorado and Texas. Those areas, on a map, would resemble a horseshoe shape around the Rockies, he said.

NEVADA STATE JOURNAL 5/2/81

Building MX would kill Nevada's 'heart,' List says

By JACK McFARREN
and PAMELA GALLOWAY FAY
Journal staff writers

Location of the MX missile system in this state would "obliterate the heart of Nevada," Gov. Robert List said Friday.

"While this nation needs an MX missile system for its national security, to put it in the state of Nevada would cause horrendous effects here," the governor said in his strongest statement yet on the MX.

List's statements came during a press conference in which the state's response to an Air Force draft environmental impact statement was released.

"I'm not coming out against national security," the governor said. "This nation is lagging behind the Soviet Union severely in its strategic nuclear missile program. We need to catch up.

"But it shouldn't be done at the expense of the state of Nevada."

List said the 1,900-page, nine-volume Air Force document is "fundamentally flawed" and "woefully inadequate.

"I've called upon the Air Force to resubmit a revised environmental impact statement to this state for review and comment.

"As written now, it's incomplete, it's inadequate and it's inaccurate in many

(Please see LIST, P. 3)

List

(Continued from Page 1

respects. The Air Force has simply failed to live up to its responsibilities."

List also would not rule out the possibility of legal action by the state over the document, which makes the Air Force's case for putting more than two-thirds of the 200-missile, 4,600-shelter MX system in Nevada with the rest in Utah.

But he said court action is not "currently in the game plan."

Asked why he did not invoke the Sagebrush Rebellion law, which calls for state takeover of 40 million acres of federal land, to stop the MX, List joked, "The Air Force has more planes than the Nevada Air National Guard."

In a more serious vein, he said it would be doubtful if "technicalities" would stop the project. The action would provoke a court case, and "courts are reluctant to step into national security matters," he said.

List said the Air Force study of MX's potential effects on Nevada's human and natural environments is so full of holes, "it's like a piece of Swiss cheese."

An Air Force spokesman replied Friday that "everyone knew there were problems" with the impact statement but that it was a draft, intended to allow comments like List's, and then incorporate the response into a final report.

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• Lack of time for public comment.

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"Those constraints have been so significant, we haven't been able to do as much work or get into as much detail as we should have been allowed."

• Future expansion of the MX project is not addressed.

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"The difference, of course, is a minimum of three-fold," List said. "The law requires when you do an (impact statement), you honestly address the full potential and scope of the project. This does not."

Responding to List's charge that as the Soviet Union beefs up its military presence, MX would have to expand, Huff said the Air Force has no plans to expand the project beyond 4,6[illegible]

NEVADA STATE JOURNAL 5/4/81

Congress begins to drag its heels on MX

By SHEILA CAUDLE
Gannett News Service

WASHINGTON — Uncertainties about the basing mode for the massive MX missile system have caused the House Appropriations Committee to recommend denial of funds for the missile's design and engineering.

The money was just a piece of MX missile pie. Scattered throughout the budget are line items providing funds for the system, even though the Reagan administration is not expected to decide where it will be deployed until this fall.

Last week, the committee had been asked to approve $28.5 million for the missile's design and engineering as part of the 1981 supplemental appropriation packages for the military.

However, the committee said the picture is so uncertain about what will happen with the MX that it

would be imprudent to authorize money.

In another setback for MX proponents, it recommended deferral of $92 million which already had been appropriated for engineering and design.

Committee members indicated that would imply a commitment to the multiple protective shelter basing mode — putting 200 missiles among 4,000 concrete and steel shelters in the desert valleys of Nevada and Utah.

They preferred a clear signal from the administration, which is awaiting the July 1 recommendations of a national review panel which is studying all deployment options, including air and sea basing.

Another House group, the Armed Services subcommittee on military installation and facilities, took another tack, authorizing $345 million as its portion of the overall budget for MX. The subcommittees had been asked to approve $760 million to allow construction to support the MX.

In trimming the authorization, it also recommended that no funds be approved for anything except the multiple protective shelter basing mode. If Defense Secretary Caspar Weinberger and President Reagan decide not to go with land basing, the subcommittee said it should have to come before Congress and ask for money for any other deployment system.

Earlier last week, the Senate Armed Services Committee authorized $2.4 billion for MX, but said it couldn't be spent until the administration makes the basing decision.

The actions in the money committees are an indication that Congress is beginning to drag its heels on MX, which has been a subject of controversy since it was introduced as the "racetrack" or "dragstrip" plan by the Carter administration.

The Air Force maintains that time is of the essence, that the nation's fixed-silo Minutemans are vulnerable to a sophisticated Soviet attack, and MX — able to "hide" in shelters — is the answer.

Last year, Congress said it wanted the system in the field by 1986.

But the thinking of a new administration, as well as vocal opposition to the MX land-based deployment, have stalled a system which would cost $56 billion to construct and $450 million a year to operate.

Sidney D. Drell
March 23, 1981

5/11/81
Exhibit 'D'
Pages 1-14

Problems with the Land-Based MX Racetrack System

The racetrack basing mode presents such severe operational and strategic problems - its sensitivity to the threat, the requirement that essentially the entire system be deployed before it contributes survivable megatonnage, and the necessity for maintaining high confidence in secrecy, deception, and simulation in the middle of our open society - I do not regard it as a satisfactory response to the threat. Furthermore, the racetrack adds new difficulties to our ability to verify limitations on force deployments. This not only detracts from our security, but it adds new difficulties for future progress for verifiable arms control.

It is characteristic of any multiple aimpoint system, such as the racetrack, that it is sensitive to the numbers of threatening Soviet warheads. In particular, the total number of shelters must exceed the number of threatening warheads for us to have confidence in the survivability of a finite portion of the deployed missiles. Currently the U.S. plans assume survival of 100 of the 200 MX's being deployed. However, in sizing the total racetrack system as 200 grids with 4600 shelters, one must be able to forecast accurately the number of threatening warheads the Soviets will be deploying. In particular, the SALT II restraints on numbers of warheads per missile, as well as on total numbers of missiles, are required in order to plan the number of shelters and dummy missiles we will have to deploy. In the absence of current or future SALT limits on the maximum number of threatening Soviet warheads, a multiple aimpoint system has no assurance of catching up with the threat. It may lead to nothing more than an open-ended race between Soviet warheads and U.S. concrete shelters.

It is also clear that anything less then the full deployment of the racetrack system against an accurately projected threat is of little real value to the U.S. Only when the racetrack deploys more aimpoints than the number of threatening warheads do we even begin to realize an appreciable gain in retaliatory capability as measured by survivable megatonnage. This is illustrated in Figure 1. The SUM system that has been proposed has no such deficiency. As a result of its mobility and concealment under water, it cannot be effectively barraged by the entire Soviet ICBM force. Hence, <u>each</u> additional missile that is deployed contributes significantly to the survivable megatonnage.

An additional difficulty of the racetrack is that it relies on deception as well as concealment for its survivability, in contrast to SUM which depends only on concealment based on the submarines' operational procedures and characteristics. There is the risk in successfully developing the required technology for maintaining position location uncertainty of the MX amidst the decoys. At the same time, in order to give confidence to the Russians that no more than the stipulated number of missiles (200 MX's) are deployed in the guise of decoys (totalling 4,400), cooperative operational procedures are included in the design requirements of the racetrack. These procedures, which include barriers on access roads and removable plugs in ceilings of assembly buildings and shelters to allow periodic satellite viewing, will further stress the verification requirements of an enforceable arms control treaty. This will be a particular problem for the United States if the Soviet Union follows our example by deploying a multiple aimpoint system of their own as their response to the extensive countersilo threat against their ICBM's that will be posed by the 2,000 very accurate MIRV's on our 200 MX missiles. The U.S. then will have to be assured that the Soviets would not be deploying more than the stipulated number of missiles in the guise of decoys.

I find it difficult to imagine an advantage for the United States with its open society in competing with the closed Soviet society to maintain secrecy and deception. The U.S. would be choosing Soviet home turf for a competition almost bound to occur if past Soviet tendencies to follow the U.S. lead in weapons programs are a valid guide to the future. The Soviet system is far better adapted to the imposition of controls, secrecy, and limitations on its population; and they have a much larger land mass in which to deploy and "hide" mobile ICBM's. We should prefer to compete with the Soviets on our own home turf of mobility based upon new systems and reliable technologies. The SUM deployment is preferable to a deceptively based MPS system in this regard. Being at sea like our present SLBM's, it would rely heavily on concealment, based on mobility and its technical characteristics, rather than on deception and strict secrecy and compartmentalization of information in the midst of our society which is essential to the racetrack deployment.

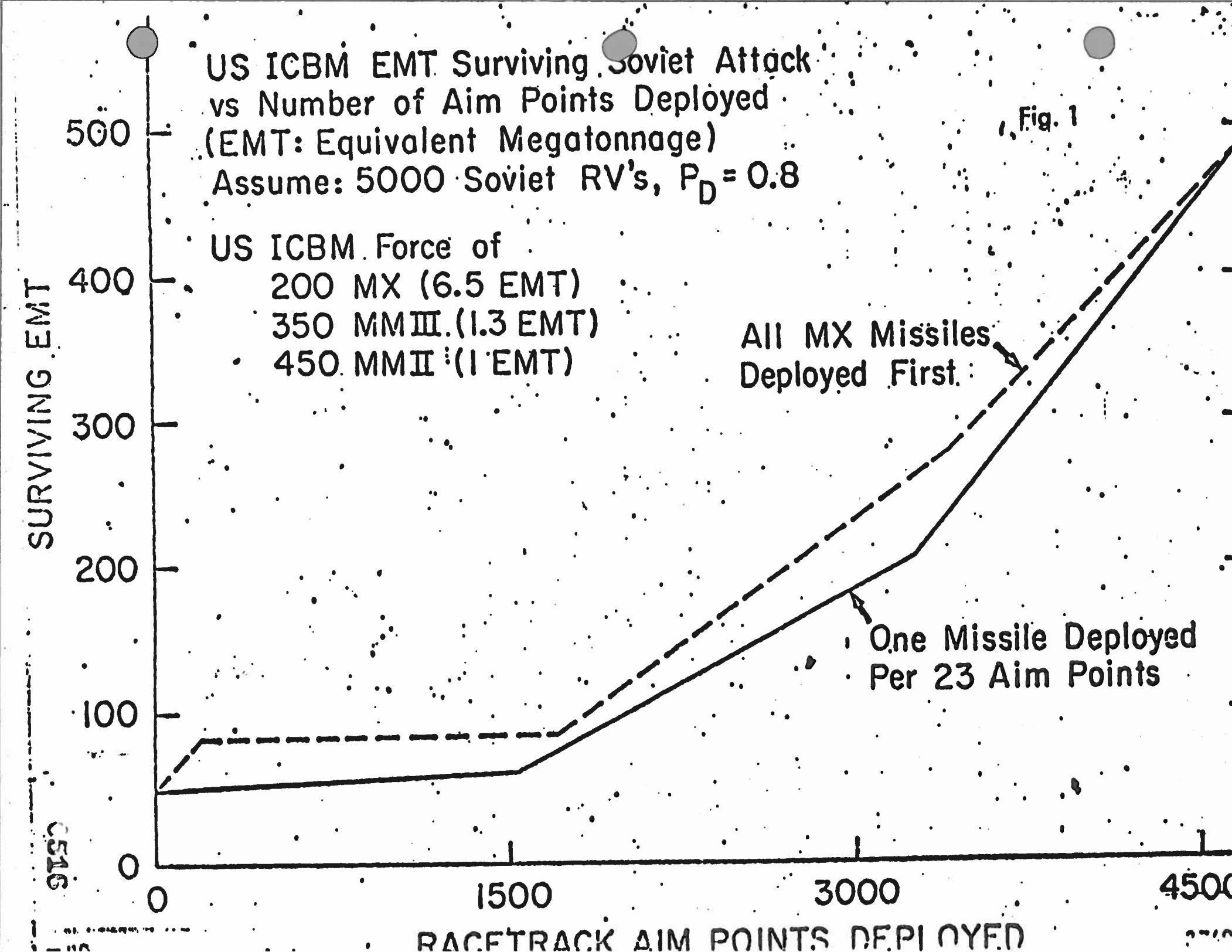
US ICBM EMT Surviving Soviet Attack
vs Number of Aim Points Deployed
(EMT: Equivalent Megatonnage)
Assume: 5000 Soviet RV's, $P_D = 0.8$
US ICBM Force of
200 MX (6.5 EMT)
350 MMIII (1.3 EMT)
450 MMII (1 EMT)
All MX Missiles Deployed First
One Missile Deployed Per 23 Aim Points
SURVIVING EMT
0
100
200
300
400
500
0
1500
3000
4500
RACETRACK AIM POINTS DEPLOYED

Fig. 1

Sidney D. Drell
March 23, 1981

RESPONSE TO CRITICISMS OF SUM

CHARGE: SUM would not be available before the 1990's.

Some defense analysts have alleged that construction of a naval base for berthing, maintaining, and resupplying a portion of the SUM force (one-third, if 3 bases are built) would take more than 12 years, but there is no technical support for this claim. Our own analysis based on conservative practice (allowing 7 years until deployment of the first SUM boat) leads us to conclude that initial system deployment can be realized by 1988, with full deployment completed by 1992.

In comparing this deployment schedule with that of the MX racetrack, it is important to realize that each SUM boat deployed contributes to survivable megatonnage for the U.S. deterrent. This is not the case for the racetrack, which will add significantly to the survivable U.S. megatonnage only when it presents so many targets that they cannot all be destroyed. Hence it is the time until completion of most of the racetracks that must be compared with the initial deployment of SUM. The current racetrack schedule calls for initial deployment in late 1986, with full deployment by 1990. However, this schedule is threatened by serious delays; litigation by citizens' groups in Nevada and Utah over this huge project's environmental impact (both from construction and operation), and a proposed congressional requirement that the racetrack basing be split with Texas and New Mexico, will surely delay the completion date. Thus SUM is likely to be a more timely response to the problem of Minuteman vulnerability than is the racetrack, and it has a relatively modest environmental impact, particularly if its initial deployment is at an existing naval base.

The SUM system requires no major technological advances, nothing like the innovations for developing nuclear submarines and solid-fuel submarine-launch ballistic missiles. It is a substantial change in operational concept, relying

on small crew size and efficient operation, but only modest advances in technology, such as radio guidance improvements for accuracy. The allegation that SUM could be available only by the 1990's is not only unsubstantiated by analysis, it denies the capabilities of our industrial and defense establishments to respond in a timely fashion to national needs.

In considering the number of years required till initial deployment of SUM it is of interest to recall the history of the Polaris project. Less than 4 years were required to proceed from the existence of a nuclear powered attack submarine (SSN) in 1957 (the Nautilus, commissioned in 1955, was the first SSN and itself took less than 5 years to complete) to a deployed fleet ballistic missile boat (SSBN) in November 1960. Indeed, by the end of 1960, 4 years after initiation of the Polaris project, 2 SSBN's were on patrol and 12 were in various stages of outfitting or construction. Major technical accomplishments during that short period included solid fuel missiles with adequate thrust for a 1200-mile range and the technique for launching missiles from submerged submarines. The hull of an SSN was "cut open" and redesigned in this period to accomodate the 16-tube missile mid-section. The entire nuclear submarine revolution from the 1949 go-ahead given by the Chief of Naval Operations for the Nautilus to the deployment of the first Polaris SSBN boat in 1960 required only 11 years!

CHARGE: SUM will be more expensive than the racetrack.

I recognize the inaccuracies and uncertainties of making any cost estimates whatsoever for so large a system. Nevertheless, the question of cost differences can be addressed with greater confidence because they are computed on the basis of the same set of assumptions in both cases. In this context I estimate that SUM is at least $10 billion less expensive than the racetrack for deploying and operating the same number (850) of survivable and effective

warheads. In making this calculation I am assuming, along with the Defense Department, that SALT II limits on the number of threatening Soviet ICBM warheads are in effect. Otherwise, the racetrack deployment would have to grow even larger and more expensive, or would require an active and costly ballistic missile defense (in conflict with the SALT I treaty limiting such defensive deployments).

CHARGE: Sum would have no advantages relative to the Trident force. It would mean abandoning the triad in favor of a less desirable dyad and, by putting too much of our deterrent at sea, making it potentially vulnerable to the possibility of the "oceans becoming transparent".

There are major differences, both technical and operational, between SUM and Trident with respect to anti-submarine warfare. Operational advantages include the very much larger number (55) of SUM boats at sea. This gives SUM a major edge against any attempt at continuous trailing of the entire force. Moreover, SUM's proximity to U.S. shores would not concede a benign operating environment for Soviet anti-submarine forces; U.S. naval assets could obviously be used more extensively and aggressively. Physical advantages for the SUM boats include their relative silence (because of their electric-drive propulsion) and their much smaller size (displacing 1,700 tons, as opposed to the 18,000 tons displaced by the nuclear-powered Trident boats).

The near-coastal waters of the SUM deployment are a complex operating medium for anti-submarine warfare (ASW), because ASW relies, at present, almost entirely on acoustics. In particular, these waters are for the large part acoustically "shallow": they do not support long-range propagation of low-frequency sonar without loss of signal from repeated bounces of the acoustical energy off the ocean bottom. Moreover, the SUM deployment area can readily be filled with decoys and with noise by sound generators, thereby raising the background noise level and making the quiet submarines even more difficult to find, if such

countermeasures were ever needed in the future. On the other hand, the Trident system has major advantages in its own right: a much larger ocean operating area ($\sim 17 \times 10^6$ vs. $\sim 10^6$ sq. nmi.) and no need to surface and snorkel.

Diesel-electric submarines have been relatively noisy while snorkeling to recharge their batteries. They may also be viewed by radar while at the surface. This raises the possibility that a fraction of the SUM force could be vulnerable to future Soviet Anti-submarine capabilities. But since only 10 percent of the fleet snorkels at any time, a single barrage would not threaten a significant number of SUM ships. This concern, should it ever emerge as a serious threat to SUM, could be addressed by eliminating the need to snorkel: converting to fuel cells for submarine propulsion. This option for SUM should be available in the mid-1990's and could be implemented when individual boats are overhauled.

Both Trident and SUM, with good operating procedure and technological care, will be highly survivable for the foreseeable future. In an era in which "Stealth" technology is supposed to render our aircraft unobservable to real radars, it is hardly conceivable that analogous techniques could not help submarines to hide. As Vice Admiral Charles H. Griffiths, Commander of the U.S. Submarine Force, recently commented (quoted by Norman B. Chandler in an interview in the Los Angeles Times on September 13, 1980) the oceans are a great place to hide because "they're becoming more opaque as we understand more about them".

A specific advantage of SUM relative to Trident is that the launch of one MX missile exposes the location of only one additional missile on the same boat - as opposed to 23 for a Trident boat.

An important advantage of a mixed deployment of SUM and Trident systems is that they have very different characteristics - including different operating areas and numbers of ships. Hence, they present very different challenges to

Soviet anti-submarine efforts which could not be concentrated against one or the other alone. Together, they preserve an important deversity of the U.S. deterrent forces.

Sidney D. Drell

Seminar on MX Basing

Congressional Research Service

The Library of Congress

March 23, 1981

Two Basic Assumptions:

1. It is not an acceptable policy for the U.S. to simply ignore the growing vulnerability of our fixed land based ICBM force.
2. It is desirable for the U.S. to maintain a broad diversity of strategic nuclear deterrent forces with different operational characteristics and potential vulnerabilities and failure modes.

My recommendation is this:

We should move more of our deterrent to sea where we can hide it confidently, taking advantage of our great naval strength and tradition, as well as the complex properties of water. Water is an inhomogenous, dirty medium that frustrates efforts to see through it reliably or accurately by the way it grotesquely distorts and effectively absorbs energy propagating

We could simply enlarge and enhance the sea-based force. One Trident sub adds the same survivable equivalent megatonnage to the U.S. deterrent as does the entire first half - i.e. 2300 shelters and 100 MX's of the racetrack deployment. Better yet, in the interest of maintaining the broad diversity of our current triad and thereby preventing the Soviet Union from concentrating all of its ASW resources against one single kind of U.S. system we should deploy a mixed force of Trident and numerous small subs.

SUM - the acronym stands for Smallsub Undersea Mobile is a deployment of small non-nuclear submarines operating in near-coastal waters of the continental United States and in the Gulf of Alaska (within 600 miles of shore).

This concept can be adapted to a wide variety of missiles with ICBM range, but here we assume that each submarine will carry two encapsulated MX missiles, mounted horizontally, external to its pressure hull. A limited operating range, a short mission duration (of no more than four weeks) and a small crew (of about 20-25, consistent with safe, efficient operation aided by automation where practical) all make possible the concept of small submarines with hull displacements of no more than about 1,200 tons. The total displacement of a SUM boat carrying 2 encapsulated missiles is about 1,700 tons. This is comparable with World War II submarines and about one-tenth the size of the new Trident missile submarines.

The primary function of the crew would be to maintain sovereignty over the nuclear-armed MX missiles; guard against piracy, sabotage, or interference; perform safety checks and maintenance; and, of course, operate the submarine. Full power of decision to launch the missiles would reside with the president (or his successor as National Command Authority) and orders would be transmitted by secure encypted communication to the missile. The submarine commander would retain veto power in the event of a failure, as indicated by on-board instrument checks.

With limited mission range and duration, power requirements for the SUM submarines are very modest. Therefore, nuclear propulsion is neither necessary nor desirable. Various (relatively inexpensive) propulsion schemes may be considered, including diesel-electric and an electric-drive fuel-cell system. We foresee an initial operation with familiar, tested diesel-electric power. This system could evolve in the mid-1990's to one that utilizes fuel cell propulsion and thereby avoids any need to snorkel. The technology of fuel cell propulsion exists and has been extensively tested, but operational at-sea use of the required fuel and oxidizer still requires further research and system development work.

A conservatively designed SUM boat (state-of-the-art for missile capsule and hull) operating at a 200-300 foot depth in deep water would be safe from the shock effects of a 1-megaton detonation at distances greater than four miles. By this criterion, more than 20,000 megatons - a number that far exceeds the total Soviet arsenal - would be required to barrage a total SUM deployment area of more than 1 million square miles. And further fractionation (MIRV'ing) of their ICBM force would not increase the threat to SUM.

The SUM force can reliably achieve high accuracy, comparable with that envisaged for the land-based MX. During the few minutes of operation of powered flight the missile would receive radio signals from the NAVSTAR-Satellite Global Positioning System (GPS) or from a network of onshore transmitters forming an inverse GPS system (ground beacon, or GBS system). Line-of-sight contact with a large and inexpensive network of such beacons could be achieved for near-coastal launches from a submarine deployed as far as 500 miles offshore. The missile would still be in its early boost phase and could correct errors in flight parameters on the basis of the radio input. There is adequate flight time available to make these corrections, during which the missile is in line of sight of the ground stations and still below the ionosphere. Hence, this information would not be distorted by high altitude nuclear detonations. The ground stations would consist of many unmanned, relatively inexpensive transmitters supplemented by even more inexpensive decoys and would be turned on only if NAVSTAR were destroyed, thereby minimizing system vulnerability to enemy attack. The SUM submarines themselves would not need a good inertial navigation system of their own; they would rely on the very capable guidance system of the MX for accurate position location of the submarine (supplemented, for example, with occasional receipt of radio signals to update its reference coordinates).

An important aspect of SUM has to do with reliable command, control, and communication (C-3). The current U.S. submarine missile force is credited

with a robust and redundant C-3 system, but which is ordinarily viewed as providing less confidence and security than the bomber and land-based ICBM components of the triad. These reservations do not apply to SUM. As a result of its coastal deployment, SUM need not rely only on worldwide communication network. Hence, existing very-low frequency (VLF) transmitters can be supplemented by equipment at dispersed survivable ground stations or by airborne transmitters much less powerful than those now carried by the TACAMO aircraft. Ultimately, other means of communication are available, such as ultra-high frequency (UHF) from satellites. Improved techniques are available for receiving these communications as well. A system of expendable buoys, for example, has been proposed for SUM as well as for other submarine-launched ballistic missile systems. A new buoy would be ejected every few hours from the submarine and float awash, while the submarine paid out fine slack insulated wire or fiber optic thread to receive the signals relayed by the buoy.

The SUM system would be designed to maintain about 55 boats with 110 MX missiles at sea, corresponding to the design goal of survivable warheads for the proposed land-based drag-strip deployment of MX. Although SALT II would limit the drag-strip MX to 10 - MIRV's, it would permit submarine-launched ballisti missiles to have upt to 14 warheads per missile, and the SUM-MX could carry 11-14 assorted Trident-I and Mk-12A warheads.

The encapsulated MX missile makes it possible, as foreseen in the massive 1967 STRAT-X study, to provide a clean interface between the missile and the submarine. The actual launch consists of freeing the capsule from the submarine, pushing on the capsule with the expulsion actuator to give it a horizontal velocity of a few feet per second, and blowing water from "soft tankage" in the front of the capsule by means of a contained gas generator. The capsule then becomes buoyant and accelerates to and through the surface of the water. As the capsule broaches, explosive cutters free the forward and rear dome-retaining

clamp bands. The missile booster then fires, and the missile emerges from the capsule as it would from a normal land launch. A gas generator in the capsule then inflates an airbag so that it cannot sink and collide with the submarine. The submarine then refairs to its initial shape by inflating a rubberized fabric fairing the seawater to about 2 psi overpressure.