Turkmen gas. The share of gas in the Caspian hydrocarbon reserves can be much higher than those suggested by the most optimistic forecasts. On the one hand, Caspian gas should be available when the industrial world needs it badly. On the other hand, Caspian gas won't be a rival for Russian gas and a source of contention between Russia and its neighbors in Central Asia.

Where the two huge pipelines run side by side, where a joint exploitation system exists, one will naturally expect to have a transcontinental highway and info-highway—a powerful communication line originating from Europe and going further to the south.

These prospects are both exciting and distant. However, they should be taken into account when addressing today's problems. No doubt, the global economy does have enough investment resources for such a large-scale project. The U.S. Congress has given $40 billion for primary measures to safeguard national security. Much less investment is needed to ensure energy security of the industrial states. Especially as it is much more reasonable and profitable to invest in crisis prevention than in recovering from them.

A pipeline bridge between the Caspian region and Western Europe, Central Asia and the world's oceans will help solve the problem of the globalization of Eurasian energy resources. It could become a basis for an ''arc of stability'' in Europe. It not only shifts the so-called arc of tension running close to Russia from the Balkans via the Caucasus, Central Asia, Iran, and Afghanistan, but will also exclude the Caspian states—the critical link—from this chain. When involved in the global economy, these countries could turn into strongholds of stability in a part of Asia that today poses major threats to the world.●

IN HONOR OF LUCY S. CICILLINE ON HER 90TH BIRTHDAY

● Mr. REED. Mr. President. I would like to take a moment to recognize a dear friend on her 90th birthday.

Lucy Cicilline, the daughter of Italian immigrants, was born Lucy Miragliuolo on December 26, 1911 in Providence, RI.

Lucy is the mother of four, the grandmother of twenty-one and the great grandmother of twenty-five. But more than this, Lucy is a vital, active personality who has always lent a helping hand to others.

When I was a boy, Lucy lived close to our family's summer home at Scarborough Beach in Narragansett, RI. Together with her husband, John, and her children, she was a wonderful friend to me and to my family. Always a kind and caring person, she showered her affection and attention on all her neighbors. As a nurse, it was Lucy who tended to my injured elbows and knees, and sometimes bruised spirit, during all the times I fell down and encountered the other mishaps of childhood.

As a Registered Nurse, employed at St. Joseph's Hospital in Providence, Lucy shared her kind and giving personality with her patients until her retirement.

But retirement did not stop her either. In 1980, at the age of sixty-nine and after the death of her husband of forty-seven years, Lucy decided it was time for her to learn how to drive.

Lucy approached this task with the same dogged determination and positive attitude that she has with everything in her life. She took driving lessons, received her license and continued to drive for the next ten years until her declining eyesight took her off the road.

Still, despite her eyesight and her getting on in years, Lucy is an important member of her community. For over fifty years, she has been contributing to the St. Joseph's Indian Tribe and has been named an honorary member of their community.

Now at the Village at Waterman Lake in Smithfield, RI, Lucy is an active adult who exercises and socializes with her fellow residents.

When I think of Lucy Cicilline, I recall the magic days of youth when I was surrounded and protected by adults like my parents and the Cicillines who set an extraordinary example of kindness and commitment to faith and family and country. At many moments in my life, I drew on those memories for inspiration and strength. Her example is with me today.

So today, I would like to thank Lucy for her kindness and her friendship and also wish her the happiest of birthdays.●

THE URGENT NEED FOR BALLISTIC MISSILE DEFENSE

● Mr. KYL. Mr. President, I rise to submit for the RECORD an article written by Brian T. Kennedy, vice president of the Claremont Institute, entitled ''The Urgent Need for Ballistic Missile Defense.'' Published in the Imprimis publication of Hillsdale College, Mr. Kennedy persuasively argues that ''the United States is defenseless against [the] mortal danger . . . of a ballistic missile attack.''

In view of the events of September 11, I commend this article to the Senate for review as a cautionary warning to the U.S. Government of the potential danger of failing to meet its fundamental constitutional obligation to ''provide for the common defense.''

The article follows.

[From Imprimis, Nov. 2001]

THE URGENT NEED FOR BALLISTIC MISSILE DEFENSE

(By Brian T. Kennedy)

On September 11, our nation's enemies attacked us using hijacked airliners. Next time, the vehicles of death and destruction might well be ballistic missiles armed with nuclear, chemical, or biological warheads. And let us be clear: The United States is defenseless against this mortal danger. We would today have to suffer helplessly a ballistic missile attack, just as we suffered helplessly on September 11. But the dead would number in the millions and a constitutional crisis would likely ensue, because the survivors would wonder—with good reason—if their government were capable of carrying out its primary constitutional duty to ''provide for the common defense.''

THE THREAT IS REAL

The attack of September 11 should not be seen as a fanatical act of individuals like Osama Bin Laden, but as deliberate act of a consortium of nations who hope to remove the U.S. from its strategic positions in the Middle East, in Asia and the Pacific, and in Europe. It is the belief of such nations that the U.S. can be made to abandon its allies, such as Israel, if the cost of standing by them becomes too high. It is not altogether unreasonable for our enemies to act on such a belief. The failure of U.S. political leadership, over a period of two decades, to respond proportionately to terrorist attacks on Americans in Lebanon, to the first World Trade Center bombing, to the attack on the Khobar Towers in Saudi Arabia, to the bombings of U.S. embassies abroad, and most recently to the attack on the USS Cole in Yemen, likely emboldened them. They may also have been encouraged by observing our government's unwillingness to defend Americans against ballistic missiles. For all of the intelligence failures leading up to September 11, we know with absolute certainty that various nations are spending billions of dollars to build or acquire strategic ballistic missiles with which to attack and blackmail the United States. Yet even now, under a president who supports it, missile defense advances at a glacial pace.

Who are these enemy nations, in whose interest it is to press the U.S. into retreating from the world stage? Despite the kind words of Russian President Vladimir Putin, encouraging a ''tough response'' to the terrorist attack of September 11, we know that it is the Russian and Chinese governments that are supplying our enemies in Iraq. Iran, Libya, and North Korea with the ballistic missile technology to terrorize our nation. Is it possible that Russia and China don't understand the consequences of transferring this technology? Are Vladimir Putin and Jiang Zemin unaware that countries like Iran and Iraq are known sponsors of terrorism? In light of the absurdity of these questions, it is reasonable to assume that Russia and China transfer this technology as a matter of high government policy, using these rogue states as proxies to destabilize the West because they have an interest in expanding their power, and because they know that only the U.S. can stand in their way.

We should also note that ballistic missiles can be used not only to kill and destroy, but to commit geopolitical blackmail. In February of 1996, during a confrontation between mainland China and our democratic ally on Taiwan, Lt. Gen. Xiong Guang Kai, a senior Chinese official, made an implicit nuclear threat against the U.S., warning our government not to interfere because Americans ''care more about Los Angeles than they do Taipei.'' With a minimum of 20 Chinese intercontinental ballistic missiles (ICBMs) currently aimed at the U.S., such threats must be taken seriously.

THE STRATEGIC TERROR OF BALLISTIC MISSILES

China possesses the DF–5 ballistic missile with a single, four-megaton warhead. Such a warhead could destroy an area of 87.5 square miles, or roughly all of Manhattan, with its daily population of three million people. Even more devastating is the Russian SS–18, which has a range of 7,500 miles and is capable of carrying a single, 24-megaton warhead or multiple warheads ranging from 550 to 750 kilotons.

Imagine a ballistic missile attack on New York or Los Angeles, resulting in the death of three to eight million Americans. Beyond the staggering loss of human life, this would take a devastating political and economic toll. Americans' faith in their government—a government that allowed such an attack—would be shaken to its core. As for the economic shock, consider that damages from the September 11 attack, minor by comparison, are estimated by some economists to be

nearly 1.3 trillion dollars, roughly one-fifth of GNP.

Missile defense critics insist that such an attack could never happen, based on the expectation that the U.S. would immediately strike back at whomever launched it with an equal fury. They point to the success of the Cold War theory of Mutually Assured Destruction (MAD). But even MAD is premised on the idea that the U.S. would ''absorb'' a nuclear strike, much like we ''absorbed'' the attack of September 11. Afterwards the President, or surviving political leadership, would estimate the losses and then employ our submarines, bombers, and remaining land-based ICBMs to launch a counterattack. This would fulfill the premise of MAD, but it would also almost certainly guarantee additional ballistic missile attacks from elsewhere.

Consider another scenario. What if a president, in order to avoid the complete annihilation of the nation, came to terms with our enemies? What rational leader wouldn't consider such an option, given the unprecedented horror of the alternative? Considering how Americans value human life, would a Bill Clinton or a George Bush order the unthinkable? Would any president launch a retaliatory nuclear strike against a country, even one as small as Iraq, if it meant further massive casualties to American citizens? Should we not agree that an American president ought not to have to make such a decision? President Reagan expressed this simply when he said that it would be better to prevent a nuclear attack than to suffer one and retaliate.

Then there is the blackmail scenario. What if Osama Bin Laden were to obtain a nuclear ballistic missile from Pakistan (which, after all, helped to install the Taliban regime), place it on a ship somewhere off our coast, and demand that the U.S. not intervene in the destruction of Israel? Would we trade Los Angeles or New York for Tel Aviv or Jerusalem? Looked at this way, nuclear blackmail would be as devastating politically as nuclear war would be physically.

ROADBLOCK TO DEFENSE: THE ABM TREATY

Signed by the Soviet Union and the United States in 1972, the Anti-Ballistic Missile Treaty forbids a national missile defense. Article I, Section II reads: ''Each Party undertakes not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided for in Article III of this Treaty.'' Article III allows each side to build a defense for an individual region that contains an offensive nuclear force. in other words, the ABM Treaty prohibits our government from defending the American people, while allowing it to defend missiles to destroy other peoples.

Although legal scholars believe that this treaty no longer has legal standing, given that the Soviet Union no longer exists, it has been upheld as law by successive administrations—especially the Clinton administration—and by powerful opponents of American missile defense in the U.S. Senate.

As a side note, we now know that the Soviets violated the ABM Treaty almost immediately. Thus the Russians possess today the world's only operable missile defense system. Retired CIA Analyst William Lee, in the ABM Treaty Charade, describes a 9,000-interceptor system around Moscow that is capable of protecting 75 percent of the Russian population. In other words, the Russians did not share the belief of U.S. arms-control experts in the moral superiority of purposefully remaining vulnerable to missile attack.

HOW TO STOP BALLISTIC MISSILES

For all the bad news about the ballistic missile threat to the U.S., there is the good news that missile defense is well within our technological capabilities. As far back as 1962, a test missile fired from the Kwajaleen Atoll was intercepted (within 500 yards) by an anti-ballistic missile launched from Vanderberg Air Force Base. The idea at the time was to use a small nuclear warhead in the upper atmosphere to destroy incoming enemy warheads. But it was deemed politically incorrect—as it is still today—to use a nuclear explosion to destroy a nuclear warhead, even if that warhead is racing toward an American city. (Again, only we seem to be squeamish in this regard: Russia's aforementioned 9,000 interceptors bear nuclear warheads.) So U.S. research since President Reagan reintroduced the idea of missile defense in 1983 has been aimed primarily at developing the means to destroy enemy missiles through direct impact or ''hit-to-kill'' methods.

American missile defense research has included ground-based, sea-based and space-based interceptors, and air-based and space-based lasers. Each of these systems has undergone successful, if limited, testing. The space-based systems are especially effective since they seek to destroy enemy missiles in their first minutes of flight, known also as the boost phase. During this phase, missiles are easily detectible, have yet to deploy any so-called decoys or countermeasures, and are especially vulnerable to space-based interceptors and lasers.

The best near-term option for ballistic missile defense, recommended by former Reagan administration defense strategist Frank Gaffney, is to place a new generation of interceptors, currently in research, aboard U.S. Navy Aegis Cruisers. These ships could then provide at least some missile defense while more effective systems are built. Also under consideration is a ground-based system in the strategically important state of Alaska, at Fort Greely and Kodiak Island. This would represent another key component in a comprehensive ''layered'' missile defense that will include land, sea, air and space.

ARGUMENTS AGAINST MISSILE DEFENSE

Opponents of missile defense present four basic arguments. The first is that ABM systems are technologically unrealistic, since ''hitting bullets with bullets'' leaves no room for error. They point to recent tests of ground-based interceptors that have had mixed results. Two things are important to note about these tests: First, many of the problems stem from the fact that the tests are being conducted under ABM Treaty restrictions on the speed of interceptors, and on their interface with satellites and radar. Second, some recent test failures involve science and technology that the U.S. perfected 30 years ago, such as rocket separation. But putting all this aside, as President Reagan's former science advisor William Graham points out, the difficulty of ''hitting bullets with bullets'' could be simply overcome by placing small nuclear charges on ''hit-to-kill'' vehicles as a ''fail safe'' for when they miss their targets. This would result in small nuclear explosions in space, but that is surely more acceptable than the alternative of enemy warheads detonating over American cities.

The second argument against missile defense is that no enemy would dare launch a missile attack at the U.S., for fear of swift retaliation. But as the CIA pointed out two years ago—and as Secretary of Defense Rumsfeld reiterated recently in Russia—an enemy could launch a ballistic missile from a ship off one of our coasts, scuttle the ship, and leave us wondering, as on September 11, who was responsible.

The third argument is that missile defense can't work against ship-launched missiles. But over a decade ago U.S. nuclear laboratories, with the help of scientists like Greg Canavan and Lowell Wood, conducted successful tests on space-based interceptors that could stop ballistic missiles in their boost phase from whatever location they were launched.

Finally, missile defense opponents argue that building a defense will ignite an expensive arms race. But the production cost of a space-based interceptor is roughly one to two million dollars. A constellation of 5,000 such interceptors might then cost ten billion dollars, a fraction of America's defense budget. By contrast, a single Russian SS–18 costs approximately $100 million, a North Korean Taepo Dong II missile close to $10 million, and an Iraqi Scud B missile about $2 million. In other words, if we get into an arms race, our enemies will go broke. The soviet Union found it could not compete with us in such a race in the 1980s. Nor will the Russians or the Chinese or their proxies be able to compete today.

TIME FOR LEADERSHIP

Building a missile defense is not possible as long as the U.S. remains bound by the ABM Treaty of 1972. President Bush has said that he will give the Russian government notice of our withdrawal from that treaty when his testing program comes into conflict with it. But given the severity of the ballistic missile threat, it is cause for concern that we have not done so already.

Our greatest near-term potential attacker, Iraq, is expected to have ballistic missile capability in the next three years. Only direct military intervention will prevent it from deploying this capability before the U.S. can deploy a missile defense. This should be undertaken as soon as possible.

Our longer-term potential attackers, Russia and China, possess today the means to destroy us. We must work and hope for peaceful relations, but we must also be mindful of the possibility that they have other plans. Secretary Powell has invited Russia and China to join the coalition to defeat terrorism. This is ironic, since both countries have been active supporters of the regimes that sponsor terrorism. And one wonders what they might demand in exchange. Might they ask us to delay building a missile defense? Or to renegotiate the ABM Treaty?

So far the Bush administration has not demonstrated the urgency that the ballistic missile threat warrants. It is also troublesome that the President's newly appointed director of Homeland Security, Pennsylvania Governor Tom Ridge, has consistently opposed missile defense—a fact surely noted with approval in Moscow and Beijing. On the other hand, President Bush has consistently supported missile defense, both in the 2000 campaign and since taking office, and he has the power to carry through with his promises.

Had the September 11 attack been visited by ballistic missiles, resulting in the deaths of three to six million Americans, a massive effort would have immediately been launched to build and deploy a ballistic missile defense. America, thankfully, has a window of opportunity—however narrow—to do so now, before it is too late.

Let us begin in earnest.●

MARGARET MEAD'S 100TH BIRTHDAY

● Mrs. CLINTON. Mr. President, I ask that the following statement, and the excerpt from the Mead Centennial press release, be printed in the RECORD in honor of Margaret Mead's 100th birthday: