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Folder Title:
National Missile Defense (NMD) - Biden Letters (6)

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Summary of Biden NMD Letters

On July 13, 2000, after the failure of IFT-5, Senator Biden sent Senator Daschle a letter raising six NMD concerns. He followed that letter with one on July 14 on the first concern and one on the 19th on the second. We do not as yet have letters from him on the succeeding ones. Below are brief summaries of the concerns and the two elaborations.

1. **What is the post-Cold War rationale for a national missile defense?** NMD proponents argue that rogue states might not be deterred by our retaliatory capability, or, more precisely, that without NMD we might be deterred by their ICBM capability – our freedom of action could be limited. Biden argues that, in the past, Soviet and Chinese ICBM capabilities have not prevented us from defending our interests in Europe, Korea, and Taiwan. He says that, in an NMD future in which states of concern have weapons of mass destruction, a President would need to consider his or her actions in the context of a realistic estimate of NMD effectiveness. He omits discussion (here) of alternative delivery means. He notes that accidental launch of Russian and Chinese weapons is better addressed through de-targeting agreements. He notes that, as a first step toward a layered defense against a massive attack, more arguments against NMD would come into play.
2. **What concrete intelligence do we have on the ballistic missile threat to the U.S.?** The 1995 NIE and the 1996 independent review by the Gates Panel estimated no indigenous capability to strike the U.S. before 2010. The Rumsfeld Commission in 1998 differed by saying that ICBMs *could* be built based on existing Scud technology within 5 years of a decision to do so and that such a system *might* be operational after its first test. Biden notes that, except for North Korea's Taepo Dong-1 flight there has been no long range ballistic missile test by a prospective enemy and there has been no test of a re-entry vehicle. He notes that the newer NIE has a diversity of views on when North Korea, Iran, and Iraq might develop ICBMs – but all tend to put *likely* dates much further away than the *possible* dates of Rumsfeld. He emphasizes the absence of facts. Biden goes on to note that the NIE tends to give more credit to third world states' abilities to develop effective countermeasures than BMDO and that it saw ship-borne, short-range missiles and non-missile delivery systems as much easier to develop.
3. **What is the technical capability of the pentagon's NMD (or alternatives) to work as designed?**
4. **How would our adversaries react to U.S. missile defense deployment?**
5. **How would the rest of the world react to U.S. missile defense deployment?**
6. **Are there realistic alternatives to the proposed NMD system (systems or negotiations)?**

TO: PRESIDENT

FROM: BIDEN, JOSEPH R

DOC DATE: 20 JUN 00
SOURCE REF: 424434

Ed Lane
KEYWORDS: NATIONAL MISSILE DEFENSE

CO

PERSONS:

SUBJECT: FWD LTRS RE NATIONAL MISSILE DEFENSE

ACTION: PREPARE MEMO FOR BERGER

DUE DATE: 08 AUG 00 STATUS: S

STAFF OFFICER: ANDREASEN

LOGREF: 0004826

FILES: PA

NSCP:

CODES:

D O C U M E N T D I S T R I B U T I O N

FOR ACTION
ANDREASEN

FOR CONCURRENCE
~~BERSTEIN~~
LACKEY

FOR INFO
BOLTON
CULLOM

*Do you think
Neal would
want this
level of
depth?*

COMMENTS: IF FINAL REPLY CANNOT BE PREPARED BY DUE DATE, AN INTERIM RESPONSE
MUST BE PREPARED FOR MILES LACKEY'S SIGNATURE.

DISPATCHED BY _____ DATE _____ BY HAND W/ATTCH

OPENED BY: NSTCG

CLOSED BY:

DOC 1 OF 1

THE WHITE HOUSE
CORRESPONDENCE TRACKING WORKSHEET

ID# 424434
PAGE 1

DATE RECEIVED: 07/25/2000

NAME OF CORRESPONDENT: THE HONORABLE JOSEPH BIDEN

SUBJECT: ENCLOSURES A COPY OF THE ATTACHED LETTER THAT WAS SENT TO ALL HIS FELLOW
DEMOCRATS IN THE SENATE ON THE SUBJECT OF A NATIONAL MISSILE DEFENSE

		ACTION		DISPOSITION		
ROUTE TO: OFFICE/AGENCY	(STAFF NAME)	ACTION CODE	DATE YY/MM/DD	TYPE RESP	C D	COMPLETED YY/MM/DD
LEGISLATIVE AFFAIRS	CHARLES "CHUCK" BRAIN	ORG	2000/07/25		C	00/07/27

ACTION COMMENTS

NSC Robert A. Brath 1 1 1 1

ACTION COMMENTS:

1 1 1 1

ACTION COMMENTS:

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ACTION COMMENTS:

COMMENTS BATCH #424430

ADDITIONAL CORRESPONDENTS: 0

MEDIA: LETTER

INDIVIDUAL CODES:

REPORT CODES:

USER CODES:

ACTION CODES:

A - APPROPRIATE ACTION
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D - DRAFT RESPONSE
F - FURNISH FACT SHEET
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R - DIRECT REPLY W/ COPY
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DISPOSITION CODES:

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B - NON-SEPC-REFERRAL
C - COMPLETED
S - SUSPENDED

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TYPE RESP = INITIALS OF SIGNER
CODE = A
COMPLETED = DATE OF OUTGOING

REFER QUESTIONS AND ROUTING UPDATES TO RECORDS MANAGEMENT (ROOM 72, OEOP) EXT-62590

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**EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
494 OLD EXECUTIVE OFFICE BUILDING
WASHINGTON, D.C. 20502**

DATE: 18 Aug 00 **PAGES (Including Cover):** Many

FROM: Terry Kelly

TO: CAPT Hasslinger

Comment: Here is a copy of the Biden letters on NMD – not air-tight, but pretty convincing, I thought.

TK

RICHARD G. LUGAR, INDIANA
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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, DC 20510-6005



424434

June 20, 2000

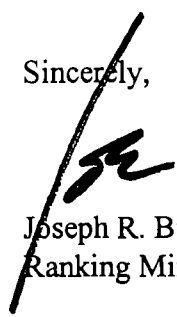
The President of the United States
The White House
Washington, D.C.

Dear Mr. President:

You know well the concerns that I have on the subject of a national missile defense. I want to keep you up to date on what I am doing to heighten people's awareness of this complex issue. During the past week, I sent the attached letters to all my fellow Democrats in the Senate, and I will send additional letters next week. As you will see, I am trying to give my colleagues criteria – similar to yours – by which to understand and judge the merits of missile defense proposals.

You are already coming to grips with all aspects of this issue. If we can get others to do the same, I am confident that even the "inside the Beltway" missile defense advocates will give you the slack to do what's best for the country.

Sincerely,


Joseph R. Biden, Jr.
Ranking Minority Member

enclosure

*RF - Now is not the time to
"pour cement in Alaska"
Mr President.*

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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, DC 20510-6225

July 13, 2000

The Honorable Tom Daschle
United States Senate
Washington, D.C. 20510

Dear Tom:

In a few months, the American people will choose a new President. This is not merely a contest, like the All-Star Game. Neither is it some political pageant, in which the players change, but the words are always the same. America's choices today will have a vital impact on the tomorrows of our children and grandchildren.

Our choice of a new President – *and President Clinton's decision* on deploying a national missile defense – will determine America's *strategic doctrine* for the post-Cold War world, affecting everything from U.S. relations with Russia and China to arms control and alliance cohesion – in short, America's political and military role in the 21st century. This choice is both vital to our future and possibly irreversible. An national missile defense deployed at the expense of strategic arms control could result in a Chinese ICBM build-up, a nuclear arms race in South Asia, and pressure on countries like Japan and South Korea to build their own nuclear weapons. If those consequences came to pass, moreover, we could not simply backtrack and resume the current framework of strategic stability; once tossed aside, the treaties and understandings that have kept the nuclear peace for fifty-five years may be lost forever.

Saturday's failure of the third flight-test of the Pentagon's proposed national missile defense makes it abundantly clear that, even on technical grounds alone, we should not go forward this year with deployment of that system. The test failed before most of its objectives could even be pursued, let alone fulfilled. The review panels chaired by Gen. Larry Welch, former Air Force Chief of Staff, had already highlighted the risk of a "rush to failure" and warned that "[m]eeting the 2005 IOC schedule goal with the required technical performance remains high risk." Saturday's test failure can only exacerbate the "continuing schedule compression and its effect on schedule and performance risk" that the review panel cited as a major program issue. The review panel also reiterated that the decision criteria for the Deployment Readiness Review "include two successful intercepts, one of which must be an Integrated System Test." Neither of those decision criteria has been met.

The Honorable Tom Daschle
United States Senate
Washington, D.C. 20510
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Despite the strong case against deploying this missile defense, Republican insistence on going ahead with deployment will leave Secretary Cohen and President Clinton with a difficult political decision. I urge each of you, therefore, *whatever* your *general* views on national missile defense, to *tell President Clinton that he should not move to deploy the Pentagon's proposed missile defense*. As the *New York Times* said on Monday, "[p]artisan political considerations should not drive such an important defense decision." *USA Today* also aptly summarized the choices that we face:

"There's no need to rush, anyway. The administration had hoped to decide by late summer so construction could start next spring. Under that timetable, the system could be finished by 2005, when North Korea is expected to have a missile able to hit U.S. territory. There is also political pressure to make a decision soon to spare the presidential candidates a thorny debate.

"But North Korea is abiding by a ban on missile testing, which should slow its own technology. And as the test Saturday showed, the proposed system has much to prove. That being the case, prudence dictates that before committing tens of billions to a system that uses even more complex technology, we be sure it is both feasible and effective. Test by all means. But for the moment, do no more."

Looking to the future, we must analyze the national missile defense issue systematically. Despite the immense power that the United States wields in the world today, we are not omnipotent and we cannot afford to build every military capability that we might like. If we are not to squander our material wealth and our world leadership, we must consider carefully not just whether a missile defense is technologically feasible, but also whether it will maximize our overall national security. I find it useful to pose six sets of questions in this regard:

1. What is the post-Cold War rationale for a national missile defense? What realistic scenarios are there for such missiles to be used against us? (Do we really expect Kim Chong-Il, or some Iranian or Iraqi leader, to wake up one morning and say, "I'm going to attack the United States with my long-range missiles, despite the consequences for my own country?" Would these missiles deter us from intervening to stop a North Korean attack on South Korea, or an Iranian or Iraqi attack on the Persian Gulf states? Or would they only deter a U.S. nuclear attack or the destruction of the North Korean, or Iranian, or Iraqi regime?)

2. What concrete intelligence information do we have on the ballistic missile threat to the United States? How much of the United States could North Korea target, with what sorts of warheads, using the long-range missile it has tested or the one that it has yet to test? When will these threats become imminent? When could Iran or Iraq achieve these capabilities? What assumptions regarding technology, foreign assistance, intentions, or political evolution underlie these estimates? How much disagreement is there among intelligence analysts?

3. What is the technical capability of the Pentagon's national missile defense (or of alternative proposals) to work as designed? How perfect must a defense be, in order to maintain U.S. freedom of action in a crisis? How difficult will it be for various proposed systems to meet that standard? What are the implications of the compressed development and deployment program for the Pentagon's proposed system, with only 19 flight-tests and parallel deployment activities? How serious are concerns regarding countermeasures that a country with ballistic missiles could use to thwart a missile defense? What are the best-case and worst-case scenarios for how any of the proposed missile defenses will perform, how long it will take to field them, and what it will cost?

4. How would our adversaries react to a U.S. missile defense deployment? Is there any realistic hope of a U.S.-Russia deal on modifying the ABM Treaty? What force structure changes could Russia implement, given its economic condition, if the United States were to withdraw from the Treaty? How would China react to a defense that could severely limit its retaliatory capability? Would a Chinese build-up have a significant ripple effect in India (and then in Pakistan), or in Russia (which must plan for contingencies on its eastern border, as well)? Would Russia and/or China forsake their non-proliferation obligations?

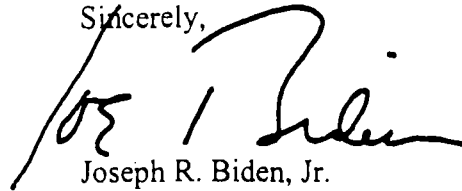
5. How would the rest of the world react to a U.S. missile defense deployment? How would our European allies deal with their fears of being left in the lurch or dragged into unwanted wars? Would our Asian allies feel driven by an Asian nuclear arms race to arm themselves, as well, with nuclear weapons? How would an end to strategic arms reductions or an increase in Russian or Chinese arms proliferation affect regional tensions and allied attitudes?

6. Are there realistic alternatives to the proposed national missile defense – either alternative systems or alternative negotiations? Would Russia and China live more easily with a boost-phase defense that was clearly aimed at North Korea, Iran and Iraq? What are the prospects for North Korea giving up its long-range missile and nuclear weapons programs? Will Russia and China help persuade North Korea and Iran to give up their missile programs, so as to avert a U.S. missile defense deployment? Would the high cost of a national missile defense be better invested in inducing other countries to drop their long-range missile programs, or perhaps on defenses against ship-borne short-range or cruise missiles that might be launched at us more easily and anonymously?

The Honorable Tom Daschle
United States Senate
Washington, D.C. 20510
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In the coming weeks, I will set forth my own views on the above questions. In the meantime, I invite any questions you may have. Decisions this year on national missile defense will affect our country for many years to come. We owe it to the American people to think through their implications.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Biden", with a large, stylized flourish extending from the end of the name.

Joseph R. Biden, Jr.
Ranking Minority Member

RICHARD G. LUGAR, INDIANA
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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, DC 20510-6225

July 14, 2000

The Honorable Tom Daschle
United States Senate
Washington, D.C. 20510

Dear Tom:

Yesterday I wrote to you regarding national missile defense and argued that it does not suffice to base a deployment decision on whether a missile defense is "technologically feasible," as so many Republicans do. Rather, if we are not to squander our material wealth and our world leadership, we must consider carefully whether a missile defense will maximize our overall national security. I listed six sets of questions that we could usefully pose as part of a systematic analysis of any national missile defense.

Today I would like to share my views regarding the first set of questions that I posed:

What is the post-Cold War rationale for a national missile defense? What realistic scenarios are there for such missiles to be used against us? (Do we really expect North Korean leader Kim Jong-Il, or some Iranian or Iraqi leader, to wake up one morning and say, "I'm going to attack the United States with my long-range missiles, despite the consequences for my own country?" Would these missiles deter us from intervening to stop a North Korean attack on South Korea, or an Iranian or Iraqi attack on the Persian Gulf states? Or would they only deter a U.S. nuclear attack or the destruction of the North Korean, or Iranian, or Iraqi regime?)

During the Cold War, when missile defense research began and some early systems were even deployed, our adversaries were the Soviet Union and China, countries with significant nuclear-weapon capabilities. Most proposals for a *limited* national missile defense, however, are aimed at defending against Third-World countries like North Korea, Iran or Iraq, that would have no hope of defeating the United States in a nuclear war. Such countries already realize that any long-range ballistic missiles fired at the United States – especially if their warheads contained weapons of mass destruction – would readily be tracked to their source by U.S. satellites, and would invite an utterly devastating American response. What do these countries seek to achieve with their missiles, then, and is a U.S. missile defense even relevant?

Now and then, somebody in the Administration or on the Republican side will argue that a national missile defense is needed because a so-called "rogue state" cannot be deterred by our overwhelming offensive might. This argument rests upon the stated or implicit assumption that someone like Kim Jong-Il or Saddam Hussein will be less rational – when weighing the risk of causing the nuclear annihilation of his country – than such supposedly "rational" leaders as Nikita Khrushchev or Mao Tse-tung.

I don't know about you, but I find that argument a far stretch. I simply cannot imagine any leader of North Korea, Iran or Iraq is going to wake up one morning and decide to attack the United States with long-range missiles armed with weapons of mass destruction. For 47 years, North Korea has been deterred – thanks to U.S. might and resolve – from again invading South Korea, even though it could inflict massive damage on its neighbor before losing such a war. Similarly, in the Gulf War, U.S. warnings deterred Iraq from using its chemical or biological weapons even in a theater context, let alone against U.S. territory.

Even intelligent conservatives understand that "rogue states" can be deterred by the credible threat of utter annihilation. Robert A. Kagan, one of the more articulate supporters of national missile defense, made this point clearly last May in his *Washington Post* column:

Of course the government ought to protect Americans from "rogue" warheads; it probably ought to protect them from comets and asteroids, too. But even the crazies are unlikely to fire a warhead at the United States out of the clear blue sky. The reason the United States needs a robust missile defense system has less to do with the actual launching of a strike against us than with how the mere threat of a missile attack will affect a future president's thinking during a crisis. Or even before a crisis.

What matters most is deterrence. Not our ability to deter others, but their ability to deter us.¹

Kagan is right, of course. Missile defense supporters should end their fear-mongering about the United States being undefended against some surprise attack. That attack isn't coming, and it would distort our strategic policy to focus on it.

What about the "freedom of action" argument for a limited national missile defense in the post-Cold War world that Mr. Kagan and others use? In his *Washington Post* column, Kagan goes on to paint quite a gloomy picture of how an America without a national missile defense would react to a world in which additional countries had long-range missiles:

¹Robert A. Kagan, "A Real Case for Missile Defense," *The Washington Post*, May 21, 2000.

The United States could find itself less and less willing to undertake the risks that come with global leadership. Adversaries would be emboldened by American timidity, and friends would begin to look elsewhere for their security. The ties that bind America to its allies would loosen. In time, the fabric of the international order, now dependent on American military power and on American will to use it, would unravel altogether.

Is that parade of horrors a realistic concern? Would 5 or 10 long-range missiles in North Korea deter us from defending South Korea? Think about our relations with the Soviet Union and China in years gone by. Did the Soviet Union's ability to devastate the United States prevent us from defending Europe for a generation and West Berlin in 1961, even in the face of superior Warsaw Pact strength on the ground? No. Did it stop us from forcing the removal of missiles from Cuba in 1962, or from supplying the Afghan *mujaheddin* in their successful struggle against Soviet forces? No. Has China's ability to deliver a nuclear strike against a dozen or more U.S. cities prevented us from defending Taiwan? No, again.

This does not mean that the United States retains *complete* freedom of action in dealing with a missile-armed state. It is generally assumed that we would refrain from trying to *conquer* Russia or China in a war, and surely their nuclear-armed missiles would tend to restrain us from mounting a "bolt out of the blue" attack, although such external restraint would never be needed because we do not entertain any grandiose dreams of conquest.

Thus, a country that developed the ability to strike the United States with long-range missiles armed with weapons of mass destruction might indeed acquire *some* ability to deter the United States. Such weapons might provide a country some insurance against a U.S. effort at military conquest. There is precious little chance, however, that it would *ever* be able – or even *think* it was able, given our record for over 50 years – to deter us from coming to the defense of our allies.

What if Mr. Kagan were right, however? What are the implications of the "freedom of action" argument for a national missile defense?

During the Cold War, the objective for any national missile defense was to limit our casualties – both in human lives and in retaliatory forces – in a nuclear exchange with the Soviet Union. Missile defense supporters saw *even an imperfect* national missile defense as helping to deter a Soviet attack, because it would bolster our ability to respond to that attack. (Of course, President Nixon eventually concluded that it was better to bar such defenses than to engage in an arms race involving both offensive and defensive weapons.)

If the purpose of a national missile defense is to maintain U.S. "freedom of action" in a crisis, however, I find it hard to believe that an imperfect defense will suffice. Imagine yourself as a U.S. President, asked to defend South Korea or Kuwait from invasion by a foe armed with long-range missiles and weapons of mass destruction. Would you feel perfectly free to do so

because a national missile defense could ensure that no more than one or two U.S. cities would be obliterated? The nuclear theologians might think so, but I doubt that any of *us*, if we were in the President's shoes, would take comfort from such a limited defensive capability.

Yet, *limited* protection is all that any realistic missile defense would afford. Nobody promises a *perfect* missile defense. Rather, if press reports are accurate, the Pentagon hopes, by firing multiple interceptors at each incoming warhead, to achieve a 95% likelihood of destroying each warhead.

The laws of probability dictate, however, that if the likelihood of destroying each incoming warhead is 95%, then the likelihood of destroying *every* incoming warhead in, say, an 8-warhead attack is only 66%. (If a missile defense were to achieve a 98% probability of destroying each incoming warhead, the attacked would need to fire 21 warheads at us in order to gain a 1-in-3 chance of getting 1 or more warheads through our defenses.) I cannot believe that a President, if told that there was 1 chance in 3 of losing one or more American cities, would feel that our national missile defense had truly given him "freedom of action."

These calculations leave out, moreover, the question of whether the *proposed* national missile defense would achieve *anything like* a 95% kill probability in the real world, where booster reliability is a constant problem and enemies use *real* countermeasures or biological weapon sub-munitions. I will return to this concern in a later letter, relating to the technical capabilities of the Pentagon's proposed system.

There is also the argument that a limited national missile defense is needed to defend against an accidental launch of missiles at the United States. This argument has important implications regarding the nature of a national missile defense. As I will explain in later letters, *boost-phase* interceptors based near countries of particular concern would get around some of the inherent technical limitations of the Pentagon's "mid-course intercept" system and would offer more reassurance to Russia and China that we were not upsetting long-standing deterrence relationships. But an *accidental* launch could occur in *any* country that has long-range missiles -- in theory, even a U.S. ally like Great Britain or France -- or even with *our own* missiles. If we must build a missile defense against such an unlikely eventuality, then boost-phase alternatives to the Pentagon's proposed system (other than space-based approaches) would not suffice.

Despite the fact that any country with long-range missiles could accidentally launch them, however, we have never felt a great need to defend against the missiles fielded by Great Britain, France, or ourselves. Why is that? It's because those missiles *are not targeted at us*. If they *were* to be launched by accident, they would go somewhere else; and therein lies the key to "defending" against an accidental launch. *De-targeting* agreements, such as that between Russia and the United States, may not offer much protection against a *purposeful* launch, since a country can readily and speedily re-target its missiles. Such agreements offer an *excellent* "defense," however, against an accidental launch, because a "de-targeted" missile is actually targeted to land

The Honorable Tom Daschle
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in the middle of the ocean, where it would do little or no harm. Thus, if an accidental launch is the concern that drives the need for a national missile defense, "de-targeting" is a much less expensive – and probably a more effective – means of addressing that concern.

I have not addressed two aspects in which a limited national missile defense might *not* be intended to be limited. One is the possibility that a supposedly limited system would still be intended to deny China the "minimal deterrence" capability that its 18 ICBM's have given it for many years. Certainly China sees that as the likely impact of the Pentagon's proposed missile defense, as do many experts. China warns, however, and the experts again largely agree, that China could and would *overcome* that threat by investing in more missiles, deploying MIRV'ed missiles, and/or employing sophisticated countermeasures on its missiles. I will address the implications of those reactions to a U.S. missile defense deployment in later letters; I believe that other countries' *reactions* to a U.S. national missile defense might well produce a world in which our national security would be *reduced*, despite whatever benefits the missile defense provided.

There is also the possibility that a limited national missile defense would evolve into a *universal* missile defense. That is what was envisioned in President Reagan's "Star Wars" approach, and some proponents of a "layered defense" see that as their ultimate objective. We had lengthy debates on that issue in the 1980's, and this letter is already long enough. Suffice it to say that the technical challenges of such a system are far greater than those facing the system proposed by the Pentagon, that such a system – and especially the *transition* from mutual deterrence to such a system – holds severe implications for U.S.-Russian relations and strategic stability, and that the Administration should be taken at its word when it insists that a defense against a massive Russian attack is not its intention, either now or in the coming years. Were a future administration to change that approach, then even more arguments against a national missile defense would come into play.

In summary, one of the justifications offered for a limited national missile defense – the "deterrence won't work" argument – has little substance and has been rejected even by strong supporters of missile defense. Another justification – the accidental launch concern – is readily addressed by other means. That leaves only the "freedom of action" justification for a truly limited defense, which I believe is also highly overstated and which, if accepted, forces one to demand perfection of one's missile defense system. I will make the case in later letters that the Pentagon's proposed national missile defense fares no better by other standards.

Sincerely,



Joseph R. Biden, Jr.
Ranking Minority Member

RICHARD G. LUGAR, INDIANA
CHUCK HAGEL, NEBRASKA
GORDON H. SMITH, OREGON
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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, DC 20510-6225

July 19, 2000

Senator Biden's Third Letter on National Missile Defense

The Honorable Tom Daschle
United States Senate
Washington, D.C. 20510

Dear Tom:

As we and the President wrestle with the issue of national missile defense, one major issue is the nature of the long-range ballistic missile threat to the United States. This issue has been the subject of political and expert debate for several years, and it is one of President Clinton's four deployment criteria.

Threat analysis is an important element of defense planning. If we fully understand the threat, we can find efficient responses to it. On the other hand, if we get it wrong, then we will waste our money. (That's why we ask what countermeasures a Third-World ICBM will incorporate.) Finally, if we construct a *strategy* around a mis-characterized threat, we may divert our energies and our forces from much more important concerns and suffer a "Maginot Line" disaster.

Threat estimates have been especially important in the debate on a national missile defense. In 1996, responding to Republican pressure that began with the 1994 "Contract with America," the Administration adopted the "3+3" policy to develop, within three years, a national missile defense that could be deployed within three years of a determination that a maturing Third-World ballistic missile threat warranted deployment of a defense. This approach locked the program into two rigidities that would come to haunt it: a short development program, which biased the decision in favor of the land-based, "mid-course intercept" system that was a descendant of past missile defense programs; and a "threat-driven" deployment schedule that the Administration perhaps did not realize would become a driving force so quickly.

In my first letter last week, I set forth some questions that we should pose regarding the threat:

What concrete intelligence information do we have on the ballistic missile threat to the United States? How much of the United States could North Korea target, with what sorts of warheads, using the long-range missile it has tested or the one that it has yet to test? When will these threats become imminent? When could Iran or Iraq achieve these capabilities? What assumptions regarding technology, foreign assistance, intentions, or political evolution underlie these estimates? How much disagreement is there among intelligence analysts?

It isn't easy to determine the extent or the imminence of the long-range ballistic missile threat to the United States from Third-World countries. They don't generally advertise their plans. True, missile tests are hard to hide, so our intelligence agencies usually observe them and the testing countries usually admit to them. But months or years can pass between tests – witness the two years between Iran's first flight-test of its 800-mile-range Shahab-3 missile and its second test, over the week-end – and it's often hard to tell where or how well a program is going.

In November 1995, the U.S. Intelligence Community estimated that no Third-World country would develop an indigenous capability to strike the continental United States with a long-range missile before 2010. Republican outcry led the Director of Central Intelligence to commission a panel led by former director Robert M. Gates to review National Intelligence Estimates (NIE's) on the issue. In December 1996, the Gates panel strongly supported the Intelligence Community's basic conclusion.

Meanwhile, Congress in September 1996 established (and then appointed) the Rumsfeld Commission to make its own assessment of the threat. The Rumsfeld Commission, which issued its report almost precisely two years ago, reached a radically different conclusion. It departed from the common wisdom on two points: how a Third-World country might build an ICBM; and how much warning the United States would have before such a missile became operational.

U.S. Government analysts had assumed that to build an ICBM, a country would have to develop technology beyond that used in the shorter-range Scud missiles that many Third-World countries have acquired, and that a flight-test program of several years would precede the operational deployment of such a missile. The Rumsfeld Commission concluded, however, that with help from other countries, a Third-World national could readily use Scud technology to jump to a long-range missile "within about five years of deciding to do so. During several of those years the U.S. might not be aware that such a decision had been made."¹

This conclusion reflected a judgment that Scud technology was more adaptable than U.S. analysts had argued – for example, that it could be used with lighter-weight missile bodies. In addition, the Commission saw few restraints on countries assisting others to develop long-range missiles. The Rumsfeld Commission's conclusion was also driven, however, by a sense that Third-World countries would cut corners in ways that previous developers of ICBM's had not, because the new ICBM's would be intended to meet much less exacting performance criteria:

Early production models would probably be limited in number. They would be unlikely to meet U.S. standards of safety, accuracy and reliability. But the purposes of these

¹*Executive Summary of the Report of the Commission to Assess the Ballistic Missile Threat to the United States*, July 15, 1998, p. 11.

nations would not require such standards. A larger force armed with scores of missiles and warheads and meeting higher operational standards would take somewhat longer to test, produce and deploy. But meanwhile, even a few of the simpler missiles could be highly effective for the purposes of those countries.²

The Rumsfeld Commission's analysis was rooted in North Korea's development of the No Dong medium-range missile. That missile was tested only once or twice before it was deployed, and even its "successful" test may not have gone according to the script. Its reliability was thus still quite uncertain. North Korea's willingness to deploy the missile after so little testing – and the willingness of both Iran and Pakistan to buy that barely-tested missile – were seen by the Commission as a harbinger of things to come regarding ICBM's. As a result, the Commission concluded that North Korea could test the Taepo Dong-2 (a prospective ICBM) within six months of a decision to do so; that Iran could develop a similar missile within five years of such a decision; and that the United States would not necessarily know if such a decision were made.

The Rumsfeld Commission's critique was somewhat vindicated a month a half later, when North Korea tried to launch a small satellite using its previously-untested Taepo Dong-1 missile (which builds on the medium-range No Dong missile, but lacks the large first stage of the Taepo Dong-2). In that "test," North Korea achieved its first rocket launch with stage separation; did it twice, much to the surprise of U.S. analysts, who had not anticipated a third stage with a small kick-motor; and, when the third stage failed, littered the Pacific Ocean with residue far downrange.

The Rumsfeld Commission report and the Taepo Dong-1 flight led U.S. intelligence to revise its analysis. Last year's NIE on the ballistic missile threat – which the Director of Central Intelligence asked Rumsfeld Commission members to review prior to its publication – concluded that the Taepo Dong-1 "has inherent, albeit limited, capabilities to deliver small payloads to ICBM ranges" and "could deliver a light payload to the United States....[containing] biological or chemical warfare agent" once a workable third stage and re-entry vehicle were developed. The NIE assessed that the Taepo Dong-2 was more likely to be used as a weapon, and that it could deliver a nuclear weapon to Alaska or Hawaii as a two-stage missile, or to "anywhere in the United States" with a third stage.³

The 1999 missile threat NIE went on to say that Iran *could* test a three-stage ICBM, "possibly with North Korean assistance, in the next few years," and that it is *likely* to test a space

²*Ibid.*

³National Intelligence Council, *Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015*, September 1999, pp. 8-9.

launch vehicle by 2010. Iraq was also seen as capable of developing an ICBM, with the date dependent upon the extent to which it could buy missiles, components or technology from North Korea.⁴

These threat projections are now driving our national missile defense. If North Korea could test at any time a missile that can target the whole United States with a nuclear weapon, and if that missile *could become operational promptly* after its first successful test, then the threat must be imminent. If Iran *could already be in the middle* of a 5-year program to develop a similar missile, then *that* threat could materialize within a few years. That leaves no time to lose – and no time to re-think the Pentagon's proposed national missile defense system.

In keeping with the questions I posed earlier, however, we should note carefully the *limited factual basis* for these estimates, the *assumptions that underlie them*, and the *disagreements among U.S. intelligence analysts*. We should also note the *countermeasures* that will accompany the ballistic missile threat and the *non-ballistic missile options* for delivering weapons of mass destruction.

Let's look at the facts – or the lack of facts. With the exception of North Korea's single Taepo Dong-1 flight, no prospective Third-World enemy has tested a long-range ballistic missile. India has space launch vehicles, one of which has been cited as the basis for a future ICBM allegedly under development since 1994, but India is far from a prospective enemy.

Even in North Korea's case, while analysts presume that the Taepo Dong-2 is a future weapon, they still don't know for sure. We know that the missile could readily be tested, but I have seen nothing on how North Korea is developing (or buying) a re-entry vehicle. We assume that's being done in secret, but developing and testing a re-entry vehicle may *take more time* than merely developing the missile itself. We just don't know.

Iran has now tested the 800-mile-range Shahab-3 twice in two years, and its denials of any intent to develop a Shahab-4 – with somewhat greater range – are highly discounted. I have seen no concrete evidence, however, that Iran is working to develop or deploy an ICBM. The same is true of Iraq, which has never fired a missile more than about 500 miles. Both of those countries may need to be able to reach regional targets (as well as each other), but they have far less need to reach targets outside the Middle East (i.e., beyond 1,500 or 2,000 kilometers). To be sure, they might *like* to hold *us* at risk, as well. But their more immediate strategic concerns are closer to home. The lack of concrete information hardly proves that there is no secret Iranian or Iraqi program to produce ICBM's. By the same token, however, *in the absence of real factual evidence*, the existence of medium-range missile programs does not mean that Iran or Iraq will necessarily scale up those efforts all the way to the ICBM stage.

⁴*Ibid.*, p. 10.

What assumptions underlie the Rumsfeld Commission report and the missile threat NIE?

The major assumption is that *capabilities* are more worthy of analysis and debate than are *intentions*. It's all well and good to say that capabilities are more concrete than intentions, but as we have just seen, the evidence on capabilities is limited. Besides, intentions – to the extent that we can accurately discern them – may be the better *predictor* of actions. In addition, aggressive non-proliferation and regional security policies can *influence* other countries' intentions – perhaps more readily than we can turn off the many sources of ballistic missile technology.

In North Korea, the “Perry process” (named for former Secretary of Defense Bill Perry, who has crafted our evolving policy) has led that country to formally suspend its long-range ballistic missile testing. Indeed, North Korea has even offered to end its missile technology exports, for the perhaps exorbitant price of \$1 billion.

We recoil, of course, at the idea of such blackmail, but shouldn't we take some solace from the knowledge that North Korea “can be bought” for a strictly monetary price? That certainly puts the *imminent* threat in a different light. Of course, unless and until North Korea and the United States reach an actual deal to end North Korea's long-range missile programs, analysts will say “they *could* test the day after tomorrow.” But “tomorrow has been postponed” every day for the past 18 months, and the threat-mongers don't quite know how to handle that.

In Iran, the emphasis on capabilities ignores progress toward a more liberal interpretation of the Islamic revolution. Iran's internal evolution will not put an end to its long-range missile programs, especially in light of its adversarial relationship with Iraq. But who is to say that an Iran more focused on internal economic problems will not *cap* its missile programs short of developing ICBM's?

In Iraq's case, the Rumsfeld Commission assumes the end of the international sanctions imposed after the Gulf War, and the NIE doesn't even mention them. The sanctions are not perfect. Iraq tries to evade them, and they do allow Iraq to pursue *short-range* missile development and production. *Other* countries *do* take sanctions into account, however, and most experts agree that so long as we maintain, monitor and enforce the sanctions, Iraq will not be able to mount a serious ICBM program.

The assumption of readily available technology from Russia, other states in the former Soviet Union, and China is also debatable. Russia and China may be sufficiently eager to avert a U.S. national missile defense that they will work with us to *avert the threat* instead. They seem to be doing that with North Korea, and were they to succeed, that would certainly be a good start.

Are all the analysts won over to the Rumsfeld Commission approach? As the Hertz commercial says, “not exactly.” The NIE's discussion of North Korea cites “most” analysts, rather than all, even though the proposition was only that North Korea “probably” will test a

Taepo Dong-2 shortly, “unless delayed for political reasons.”⁵ I don’t know which analysts held out, but so far, they’re looking good. Some people even ask whether North Korea has developed the Taepo Dong rockets as anything other than satellite launch vehicles. I think that’s a stretch, but we can’t disprove that hypothesis yet, any more than we can discard the “day after tomorrow” hypothesis.

The NIE analysts were even more divided on Iran. Some saw Iran getting an ICBM before 2010, and almost surely by 2015. Others rated the odds as less than 50-50 by 2010, and merely better than 50-50 by 2015. Still others said the odds were less than 50-50 by 2015. Note, moreover, that *none* of the analysts was as alarmist as the Rumsfeld Commission report – even though members of the Commission reviewed the NIE before it was issued.

The diversity of views on Iran is not surprising. After all, Iran had gone 14 months without a second flight-test of the Shahab-3 when the NIE was issued. Now a second test has occurred, but not until another 10 months had passed. Is this a program that is on track to develop an ICBM, or one that is stuck at the MRBM level? It isn’t easy to tell.

Does it matter? You bet it does! What if we should reach a diplomatic deal with North Korea? Then *Iran’s* program would be the pacemaker for the threat. If the best guess is that there will be no real Iranian threat for another 15 years, then a North Korea deal – if we could get it – would leave us *plenty* of time to develop alternative systems and to consult with allies and potential adversaries. As I will argue in later letters, there are good technical and national security reasons to pursue those other efforts.

The NIE analysts are also divided on Iraq, and the analysis depends upon what Iraq might obtain from North Korea. Give it no assistance, and we’re looking at 2020. Give it No Dong missiles or Taepo Dong engines, and it’s 2015 for an Iraqi equivalent of the Taepo Dong-2, or earlier for an Iraqi Taepo Dong-1. Then again, perhaps North Korea will sell Iraq the whole Taepo Dong-2 system – and, behold, we have an Iraqi threat “within months.”⁶ Well, yes, and by that standard we could have a Libyan threat, or a Syrian threat, or a Sudanese threat, as well. That’s a good reminder of how central North Korea is to our threat analyses, but it may not really tell us much about the *Iraqi* threat.

What about countermeasures? The Rumsfeld Commission did not consider the question of penetration aids. It did note, however, the risk of biological weapon payloads using sub-munitions:

All of the nations whose programs we examined that are developing long range ballistic missiles have the option to arm these, as well as their shorter- range systems, with

⁵*Ibid.*, p. 9.

⁶*Ibid.*, p. 10.

biological or chemical weapons. These weapons can take the form of bomblets as well as a single, large warhead.⁷

The missile threat NIE was much more explicit and detailed, stating that “countries developing ballistic missiles would also develop various responses to US theater and national defenses,” possibly with help from Russia or China. The NIE listed the following “readily available” techniques: “separating RV’s; spin-stabilized RV’s; RV reorientation; radar absorbing material (RAM); booster fragmentation; low-power jammers; chaff; and simple (balloon) decoys.” The NIE added: “These countries could develop countermeasures based on these technologies by the time they flight test their missiles.”⁸

The actual threat, then, may not be the one that the Pentagon’s proposed system is intended to repel. Indeed, a mid-course intercept system may *never* be effective against biological weapon bomblets. I will return to that concern in my next letter.

What about other delivery techniques? The Rumsfeld Commission did not study the threat posed by terrorism or by delivery systems other than long-range ballistic missiles, but warned that “cruise missiles have a number of characteristics which could be seen as increasingly valuable in fulfilling the aspirations of emerging ballistic missile states.”⁹ It also saw ship-borne short-range missiles as a more immediate threat than ICBM’s, noting that India is developing such a system and warning that Iraq might do so.

The NIE was again more explicit and detailed, devoting significant attention to such threats as ship-borne missiles, short-range land-based missiles, cruise missiles, and state- or terrorist-sponsored delivery by ship, truck, or airplane. Its analysis of the advantages of non-missile delivery options was especially troubling. The NIE found that most such options:

- Are less expensive than developing and producing ICBM’s.
- Can be covertly developed and employed; the source of the weapon could be masked in an attempt to evade retaliation.
- Probably would be more reliable than ICBM’s that have not completed rigorous testing and validation programs.
- Probably would be more accurate than emerging ICBM’s over the next 15 years.

⁷Rumsfeld Commission *Report*, p. 7.

⁸NIE, p. 16.

⁹Rumsfeld Commission *Report*, p. 2.

- Probably would be more effective for disseminating biological warfare agent than a ballistic missile.
- Would avoid missile defenses.¹⁰

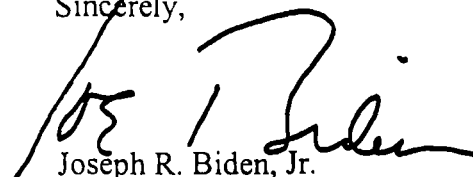
Would a national missile defense be a new “Maginot Line?” Reading between the lines of the NIE, I fear it might. Pouring money into a mid-course intercept system, we would remain vulnerable to an ICBM attack with biological weapon bomblets, with many countermeasures, or combined with a sneak attack on the defense system’s X-band radar on Shemya Island in the Aleutians. We would also be vulnerable to attack by short-range missiles, cruise missiles, or weapons of mass destruction on a ship, a plane or a truck.

Could we defend against all those other threats as well? Perhaps we could in theory, but where will we find the money and the determination to shield ourselves from all those modes of attack at once? If we cannot “have it all,” is the threat from long-range ballistic missiles – from the weapons most likely to invite our massive retaliation, and therefore *most amenable to deterrence* – really the threat that most merits our attention? *I wonder.* Is it prudent to spend \$60 billion on a limited national missile defense system? Or would it be better to put that \$60 billion into strengthening non-proliferation regimes, removing the missile threat through negotiations like those now ongoing with North Korea, maintaining our deterrent posture, improving our ability to *take out* a country’s missiles if it is about to use them against us, pursuing better defenses against cruise missile attacks or terrorist operations, and developing a *boost-phase* ballistic missile defense that could be deployed *in cooperation* with Russia to stop “rogue-state” missiles? The one certainty is that a decision to deploy the Pentagon’s limited missile defense will make it that much more difficult to find the funds for those other options.

Is it *really* the long-range ballistic missile threat that drives us to deploy the Pentagon’s proposed national missile defense? Or have history and the Republicans’ fond memories of Ronald Reagan conspired to focus our politics, our funding and our technology on one of the *less* likely threats that weapons of mass destruction will pose today and in the years to come?

For many reasons, I fear that the road to a national missile defense – or at least the road to the Pentagon’s proposed system – is a “primrose path.” The threat that has put us on that road is a real one, but it *may* be *not nearly as imminent as we have feared*, and also *not nearly as simple as we would wish*. The threat merits a response, but it should not drive us to distraction.

Sincerely,



Joseph R. Biden, Jr.
Ranking Minority Member

RICHARD G. LUGAR, INDIANA
THOMAS H. DASCHLE, NEBRASKA
JORDON H. SMITH, IOWA
ROD CLARK, MINNESOTA
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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, DC 20510-6225

July 25, 2000

The Honorable Tom Daschle
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Dear Tom:

My earlier letters on the national missile defense issue set forth some questions for us to consider, considered the rationale for a national missile defense, and looked into what we really know about the ballistic missile threat to the United States. Now we should examine various proposed systems, especially the system that the Pentagon and the President are considering whether to deploy.

We have been bombarded with details and allegations regarding the limited national missile defense. The challenge is to make sense of all that. I find it useful to ask the questions that I posed in my first letter:

What is the technical capability of the Pentagon's national missile defense (or of alternative proposals) to work as designed? How perfect must a defense be, in order to maintain U.S. freedom of action in a crisis? How difficult will it be for various proposed systems to meet that standard? What are the implications of the compressed development and deployment program for the Pentagon's proposed system, with only 19 flight-tests and parallel deployment activities? How serious are concerns regarding countermeasures that a country with ballistic missiles could use to thwart a missile defense? What are the best-case and worst-case scenarios for how any of the proposed missile defenses will perform, how long will it take to field them, and what will it cost?

We already noted that the "freedom of action" justification for a limited national missile defense is a lot more reasonable than the "deterrence won't work" argument, which has been rejected even by strong supporters of missile defense, or the accidental launch concern, which is readily addressed through de-targeting agreements. To truly give the President freedom from blackmail in a crisis, however, a missile defense must be essentially perfect. It's hard to quantify the needed perfection, but it does appear that a 95% or even 98% likelihood of destroying each incoming warhead would still leave too great a risk of one or more U.S. cities being destroyed by an enemy force of 10 or 20 missiles. That helps to explain why opponents of the Pentagon's proposed system say that it is not enough to show that "hitting a bullet with a bullet" is possible. The test of *operational effectiveness* is both very relevant and very difficult for any missile defense system to meet.

entirely
Not true

One issue that has received a lot of coverage has been whether the Pentagon's proposed system would perform effectively if incoming missiles were armed with countermeasures that a Third-World country would be capable of incorporating in an ICBM system. The U.S. Intelligence Community has warned that many such countermeasures are within the capabilities of any country that can develop and produce an ICBM and weapons of mass destruction. Scientists who question the wisdom of deploying the Pentagon's proposed system have elaborated on how some of those countermeasures would work. The Ballistic Missile Defense Organization (BMDO) has replied that its critics lack access to all the facts and that if the initially deployed system cannot meet the challenge, then later systems will.

As you all know, "I'm no rocket scientist." I won't even pretend to know whether Professor Postol of MIT is right when he accuses the Pentagon or its contractors of bad faith. I am persuaded, however, that Dr. Richard Garwin and others make two basic points that BMDO has yet to answer adequately.

The first basic point is that *there are feasible ways to use decoys to confuse the interceptors that the Pentagon is proposing*. A decoy can be made to look like a warhead in many respects, especially while the decoys and the warhead are still outside the atmosphere – which is where the Pentagon's proposed system is intended to intercept the warhead. (You could wait until atmospheric re-entry makes it easier to determine which object is the warhead, but that would severely limit the system's ability to use a "shoot-look-shoot" strategy in which you see whether you destroyed the target before you fire more interceptors at it.)

To understand why decoys can confuse an interceptor, we have to remember that an interceptor "sees" only what its sensors can detect or what other sensors in the missile defense system can detect and transmit to it. The sensors that the Pentagon's system will use are basically optical, infra-red, and ground-based radar. This means that a good decoy must look like the warhead, give off the same heat as the warhead, and travel like the warhead. (Doing this is called "simulation" in the trade.) Dick Garwin's example is a warhead-shaped Mylar balloon – released and blown up right after the boost phase ends – with special coatings to give it the right temperature when it's in the sun, and a small heater inside to give it the right temperature when it's in darkness. Because the enemy needs only to confuse the interceptors outside the atmosphere, it doesn't matter that the decoys are much lighter than the warhead.

To further confuse the defense, an enemy can also make the warhead look like an easy-to-build decoy. (That's called "anti-simulation.") Thus, the warhead can be enclosed in a more-or-less round Mylar balloon. If you do that, then the decoys don't even have to be shaped like a warhead; they can be round, too. In addition, the decoys can be a bit different from each other, so that the interceptor cannot easily differentiate "a bunch of what must be decoys" from "the only different one, which must be the warhead." In another form of "anti-simulation," the warhead could be given a cooled shroud to lower its heat emission and make it more difficult for an infra-red seeker to locate it in time to maneuver a hit-to-kill vehicle into the warhead's trajectory.

I don't know for sure whether Dick Garwin and others are right when they say that the particular decoys they describe will readily work. The failure of the decoy to deploy properly in the last missile defense flight-test reminds us that reliability is a concern with decoys, too. If you have lots of decoys on each missile, however, a failure affecting one or two of them may not be of much help to the defense.

BMDO has said, moreover, that until its system includes the SBIRS-Low (space-based infra-red) satellite, the missile defense will only be able to defeat "simple" warheads, meaning ones without effective countermeasures. When the latest panel chaired by Gen. Larry Welch said that "the technical capability to develop and field the limited system *to meet the defined CI threat* is available," the threat to which they referred was "few, simple" warheads. Little wonder, then, that the panel also said that the national missile defense program "requires critical attention to potential countermeasures challenges." I think that *the conclusions of both the Intelligence Community and the Welch panel corroborate Dr. Garwin's basic point on the feasibility of effective countermeasures.*

The second basic point is that *a missile delivering a biological weapon can readily overwhelm the proposed system through the use of sub-munitions.* A nuclear weapon has to be delivered in one coherent hunk – weighing somewhere between a half ton and a ton, if a country uses a simple weapon design. A biological weapon delivers an aerosol, however, which actually works much better if you put the material into little bomblets that are dispersed over a wider area. The technology for that is nothing fancy, and the bomblets can be released well before the proposed interceptors would arrive. (You can do this with chemical weapons as well, but people tell me that a chemical weapon would not cause nearly as many casualties, when delivered by an ICBM, as would a biological weapon.)

The point here is that while you might be able to "hit a bullet with a bullet," a mid-course or terminal-phase intercept system would be simply unable to cope with the tens or hundreds of bomblets that each warhead could disperse. No improvements in *this* type of missile defense would solve the basic problem; you would have to "layer on" a separate interceptor (and appropriate sensors) that could kill the enemy missile *before it released the bomblets.*

The concern over countermeasures is one big reason why so many people, including both supporters and opponents of a national missile defense, have suggested that a *boost-phase* intercept system be developed. If you could kill the enemy missile before it could release bomblets, which would also be before it could release decoys, these countermeasures would be neutralized. Ideas for how to do this range from space-borne or air-borne lasers to ground-based (or ship-based) interceptors that would be located (or stationed) near the countries whose missiles posed a threat to us.

Boost-phase intercept systems pose their own technical challenges. Space-based lasers (the original "Star Wars" approach) need their own space-based power systems, as well as intricate sensing and maneuvering capabilities to properly aim the lasers at multiple, speeding targets; they must also be hardened against anti-satellite weapons and nuclear effects. Air-borne lasers must conquer atmospheric interference that spreads and weakens the laser beam.

Ship-based interceptors must have ships large enough to handle the large boosters that will be required in order to gain enough speed to strike an ICBM in its boost phase. Boost-phase interceptors must be located near the country of concern and must hit the ICBM while its rocket is still burning – roughly within 2-3 minutes after the interceptor is launched. The smaller size of the ships and missiles is one reason why even some boost-phase intercept advocates doubt the feasibility of basing a national missile defense on *Aegis*-class ships and the Navy's planned theater missile defense systems.

All boost-phase interceptors face the challenge of detecting, targeting and intercepting an offensive missile within its roughly 4-5 minutes of powered flight, as opposed to the 10-20 minutes of exoatmospheric flight during which the Pentagon's proposed system can try to engage incoming warheads. This puts a high premium on a boost-phase interceptor succeeding on the first or second try. Targeting two interceptors on each offensive missile is still feasible, but "shoot-look-shoot" would not be. Boost-phase intercept systems are likely to reduce the role of a human being in the decision process. To avoid shooting down innocent rocket launches, one must depend upon information from countries of concern that is then fed into perfectly-functioning defensive command-and-control systems.

In addition, all boost-phase interceptors must cope with boost-phase countermeasures. Cooler-burning fuels or shorter burn times can pose a challenge to the missile defense's sensors. Stage separation on the offensive missile could be combined with re-starting the motor of the discarded stage, to confuse the interceptor. The offensive missile could use a varying or intermittent burn to trick the sensor, and it could also maneuver to impose physical stresses on the interceptor. Finally, a large enough country (like Russia or China) could launch its missiles from a point far enough away that a ground- or sea-based defense could not defend against attacks on all of the United States. It's a challenge for a boost-phase system to defend all our territory against all ICBM threats, just as it is for the Pentagon's proposed system.

Given the challenges that any boost-phase intercept system will face, it is no surprise that the Pentagon says such a system could not be deployed by 2005, the target date for initial deployment of the proposed mid-course intercept system. Of course, even the Pentagon's proposed system would not be *fully* deployed until 2007, and would be only the first stage of a still larger system to be deployed by 2010 or so.

How likely is it, however, that *the Pentagon's* proposed system would be deployed by 2005? The latest Welch panel concluded that "[m]eeting the 2005 IOC schedule goal with required performance remains high risk," and BMDO has never disputed that point. This month's test failure can only increase that risk.

As press stories have highlighted, results of the flight-tests of the Pentagon's proposed system have been mixed, at best. The first test involved a successful intercept of a warhead, but only after the interceptor had become disoriented and then saved the day by homing in on the extremely bright *decoy*, eventually realizing that it was aimed at the wrong target (thanks to information in its computer that *told* it how to distinguish the decoy from the warhead), and then searching near the decoy to find the target. The second test failed at the end, due to a cooling system flaw that did *not* reflect upon the *feasibility* of the system, but *did* have implications for *reliability* and does have to be corrected, even if that correction exacts a penalty in increased interceptor weight to accommodate more redundancy. The third test failed so *early* in the test – when the booster rocket failed to separate from the interceptor – that none of the interceptor's capabilities was tested, whatever the performance may have been of other system components.

Experts will argue over whether the use of a single, unrealistic decoy constitutes "dumbing down" of the flight tests. Frankly, it doesn't bother me that *at this early stage*, BMDO would concentrate on getting the sensor and battle-management information flows right and on seeing whether the kinetic kill vehicle could hit even a relatively cooperative target. Neither does it bother me that *at this early stage*, the test program would use surrogates rather than prototypes or actual components of the system.

What does bother me is that at this early stage, the President will have to make a deployment decision. Clearly, it is too early to tell how well the Pentagon's proposed system will perform against even "simple" countermeasures. As the Welch panels make clear, it is too early to tell how well the system will perform in multiple encounters, or against attacks from directions other than the one used in flight-tests. It is too early to tell how well the kill vehicle will survive the stresses imposed by the planned booster; the second Welch panel said that those stresses will be 10-100 times greater than those imposed by the slower booster used in tests thus far. In my view, it is too early to choose an architecture that may well fail and that has severe limitations even if it meets its design criteria, especially as a decision to deploy this system could have a negative impact upon important U.S. alliance, arms control and non-proliferation equities, as well as on other options for a ballistic missile defense system.

The Pentagon's director of Operational Test and Evaluation has made no secret of the fact that he shares the concerns raised by the Welch panels. To BMDO's credit, it has worked to address those concerns. It cannot change the absurdity, however, of making a deployment decision so early in a complex, high-risk development program.

The American Physical Society, a non-partisan association of 42,000 physicists, has weighed in on precisely this point. Just before the most recent flight-test, the Society's spokesman said: "There is not yet enough evidence to show that the system will work, and this very limited test won't change that. It can only give us more reasons not to deploy at this time."

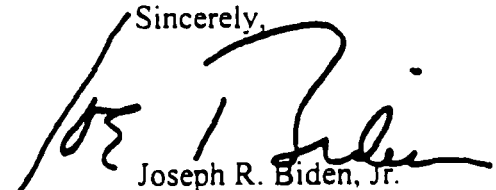
Perhaps a July 17 editorial in *Aviation Week & Space Technology* does the best job of summarizing the situation:

The fact is, no one knows (yet) whether any NMD system can be made to work....

One does not have to be for or against NMD to be prudently skeptical about staking out a position on an extremely controversial undertaking *before the facts are in*. All sides should suspend judgment until far more test data are in hand.... Both sides have been jumping to conclusions for years, but more years of testing lie ahead before decisive technical and engineering conclusions can be reached on the merits.

I share the view that we should suspend judgment. We should also defer decisions that risk irreversible consequences. Those risks will be the topic of my next letter.

Sincerely,



Joseph R. Biden, Jr.
Ranking Minority Member

ROBERT C. BYRD, INDIANA
 JIM COOPER, ARIZONA
 JIM CRIST, KENTUCKY
 JIM DODD, CONNECTICUT
 JIM HATCH, UTAH
 JIM INHOFE, OKLAHOMA
 JIM MITCHELL, MISSISSIPPI
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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, DC 20510-6225

July 26, 2000

Senator Biden's 5th Letter on National Missile Defense

The Honorable Tom Daschle
 United States Senate
 Washington, D.C. 20510

Dear Tom:

Deployment of even a limited national missile defense would be a momentous act. It would represent a fundamental change in U.S. strategic doctrine, from our long-standing reliance upon deterrence and arms control to a new paradigm that relies significantly upon our own defensive capabilities. In my second letter, I argued that the "deterrence won't work" and "accidental launch" rationales were unpersuasive, while the "freedom of action" rationale imposed severe performance requirements. My fourth letter reviewed how far we are from meeting those performance standards.

Now, I think we should consider more closely what impact a move to deploy a national missile defense would have on broader national security concerns, including arms control and nuclear non-proliferation. The President has adopted one formulation of this issue as his fourth criterion for deployment:

(4) the implications that going forward with national missile defense deployment would hold for the overall strategic environment and our arms control objectives, including efforts to achieve further reductions in strategic nuclear arms under START II and START III.¹

"The overall strategic environment" encompasses an array of broader concerns. In my first letter, I set forth two sets of questions that we might usefully pose to flesh out those concerns:

How would our adversaries react to a U.S. missile defense deployment? Is there any realistic hope of a U.S.-Russia deal on modifying the ABM Treaty? What force structure changes could Russia implement, given its economic condition, if the United States were to withdraw from the Treaty? How would China react to a defense that could severely limit its retaliatory capability? Would a Chinese build-up have a significant ripple effect in India (and then in Pakistan), or in Russia (which must plan for contingencies on its

¹The White House, *A National Security Strategy for a New Century* (December 1999), p.

eastern border, as well)? Would Russia and/or China forsake their non-proliferation obligations?

How would the rest of the world react to a U.S. missile defense deployment? How would our European allies deal with their fears of being left in the lurch or dragged into unwanted wars? Would our Asian allies feel driven by an Asian nuclear arms race to arm themselves, as well, with nuclear weapons? How would an end to strategic arms reductions or an increase in Russian or Chinese arms proliferation affect regional tensions and allied attitudes?

The truth is, answering these questions is not easy. It is abundantly clear that much of the rest of the world opposes U.S. national missile defense plans, and it is important that we consider the likely reactions of other countries to a U.S. deployment. That does not mean, however, that we can always take foreign leaders' warnings at face value. Rather, we – and the experts whom we consult – must analyze those statements and sift the serious points from the rhetoric. We must have a realistic understanding of the interests of our allies and our adversaries, so that we can pursue national security strategies that protect and enhance America's interests.

Take the case of Russia. Ranking military officers are quoted as rejecting even our perception of a looming long-range ballistic missile threat. President Putin seems to understand our concern, however, even though he rejects our proposals for dealing with it. Whatever the substantive merits of his proposals for a joint NATO-Russian defense or for launching North Korean satellites in return for an end to North Korea's long-range missile program, they imply a recognition that Third-World missiles could pose a real threat.

There has been no give, however, in Russia's opposition to the ABM Treaty protocol that the United States reportedly proposed early this year, and I find it hard to imagine a scenario in which Russia's opposition to the *current* U.S. proposal would change. The Pentagon's proposed system has encountered so many problems and so much domestic opposition that the Russians have to wonder whether it will ever be deployed, no matter what decision President Clinton makes this fall. Meanwhile, congressional Republicans tell Russian officials not to negotiate a deal with the President, and Governor George W. Bush, while apparently committed to an even larger missile defense, says: "why would we want to put a system in place that doesn't work?"²

The inability to strike a deal with Russia leaves the President with precisely the Hobson's choice that he tried to avoid: to forego (or at least defer) a decision to deploy a limited national missile defense, or to withdraw from the ABM Treaty in order to deploy. Russians say that if we

²Statement on "This Week" with Sam Donaldson and Cokie Roberts, ABC News, July 16, 2000.

abrogate or withdraw from the ABM Treaty, the first casualty will be the START process. *I think that they are absolutely serious about that.*

Russian officials sometimes threaten also to withdraw from the INF Treaty, under which the Soviet Union and the United States did away with intermediate-range (500-5,500 kilometer) ground-based ballistic and cruise missiles. In my view, that threat is a bit of a stretch. After all, we could respond by building a NATO missile defense or by again fielding missiles that could strike Russia from Europe. Either way, Russia would be the loser.

The end of the START process, though, is nothing to be sneezed at. *This would be a big deal.* Russia would rely once again on MIRV'ed ICBM's, which are banned by START II because they pose real risks to crisis stability. When you put multiple warheads on an ICBM, it becomes worthwhile for an attacking state to target that missile in a first strike, even if that requires two-on-one targeting. The state with MIRV'ed ICBM's knows this, so it either plans to launch its own missiles pre-emptively or relies upon its missile warning system to enable it to launch while an enemy's missiles are actually on the way. That "hair-trigger alert" status increases the risk of a nuclear "accidental war," which is why we have spent the last decade trying to do away with those missiles.

The moth-eaten state of Russia's missile warning systems is one more reason to fear a world in which Russia goes back to relying upon MIRV'ed ICBM's. The United States and Russia have joint programs to give Russia more assured warning of missile launches, so as to reduce the risk of accidental war. Would those cooperative efforts proceed if U.S. withdrawal from the ABM Treaty were to sour U.S.-Russian relations? We just don't know.

The end of the START process would mean the end of *agreed* U.S.-Russian reductions in nuclear weapons. Some people say that we could still engage in unilateral arms reductions, perhaps with tacit coordination. That's true. The price, however, is the loss of verification and predictability. START treaties set standards for the destruction of weapons. They provide for data exchanges, as well as for on-site inspections of that destruction. Weapons destruction under the START Treaty has been funded by the Nunn-Lugar program, so we have all sorts of access to what Russia is doing with its strategic weapons. A START III agreement could provide for transparency and a measure of verification regarding the nuclear warheads on those missiles. If we give up on START, we are giving up verification and transparency as well.

In addition to its impact upon U.S.-Russian arms control and strategic stability, an end to the ABM Treaty could undermine vital non-proliferation efforts. Russia might well see the world's trouble-makers as its only friends, and proceed to undercut the world's non-proliferation regimes. We have been working for years to end Russia's assistance to Iran's nuclear and long-range missile programs. That's a hard battle, but we *have* made progress. Do we really want to risk re-opening the floodgates of Russian assistance?

Reactions from our European allies have been pretty tame. Most of them have stopped claiming that an America with missile defenses would leave them in the lurch. They all fear, however, that an America with missile defenses will pursue crusades that Europe cannot join with any similar sense of safety. It does our allies no good, moreover, when we offer to share our technology with them, for they either cannot or will not find the money for such defenses.

European reaction to our abrogating or withdrawing from the ABM Treaty could be another matter. Even those allies who understand our concerns tell us that retaining that treaty is crucial. Will our allies go along with locating ABM radars on their soil, if they see us as undermining arms control? Secretary of Defense Cohen told the Armed Services Committee yesterday, "in order to have a technologically effective system, we need to have the support of our allies." He also said: "You can't get the support of allies unless you at least try to work it out with the Russians." If he still has to raise these issues, you have to wonder whether *he* is confident of getting the needed allied support.

Then there's the matter of China. For years, China has pursued a strategic doctrine of "minimal deterrence," relying on its 18 ICBM's that can reach the United States and destroy our major cities. We can tell *Russia* that 100 or 200 interceptors will not threaten its deterrent capability, but *China* is another matter. Even our initial deployment would *significantly* threaten China's deterrent. How will they react? How will their reaction affect the actions of other countries – including India, Pakistan, Russia, and perhaps Japan, South Korea or Taiwan?

Last March, when I raised the China question at a Stanford University conference, the experts had no confident answers, but shared my concerns. A couple of days later, Dr. Bates Gill (now of the Brookings Institution) and James Mulvenon (Deputy Director of the RAND Center for Asia-Pacific Policy) wrote in similar terms:

Clearly, China cannot be allowed to dictate U.S. national security decisions. But ignoring its concerns – and likely reactions – could jeopardize the security benefits that a national missile defense would be designed to provide.

Consider the troublesome steps China could take if NMD is approved. First, it would almost certainly accelerate the development of systems that could penetrate a missile shield—decoys, shrouded warheads, perhaps multiple warheads. Then, if Washington-Beijing relations were to sour significantly, China might sell these relatively cheap countermeasures to North Korea, Iran, Pakistan or others – rendering America's costly system either irrelevant or in constant need of upgrades.

China also could choose to speed up its nuclear modernization program in general, possibly staging an aggressive nuclear buildup – something that has not previously occurred in spite of China's 35-year history as a nuclear power. It would certainly be ironic if a U.S. missile defense actually contributed to more warheads being aimed

toward the United States.

China might also speed up military programs that have nothing to do with intercontinental weapons. By building up its force of short- and medium-range nuclear missiles, China could drive a wedge between the United States and its friends in East Asia. Some in Japan and South Korea are already worried that the United States, after installing a national defense system to protect America's borders, would fold up the "nuclear umbrella" under which it is committed to protect its allies elsewhere. Under such conditions, our allies might seek to build up their own missile and nuclear deterrents, leading to greater instability in the region.

Finally, we should be prepared for Chinese responses to NMD that do not involve nuclear weapons or missiles at all, such as diminishing cooperation on the Korean peninsula or further pressuring Washington about its arms sales to Taiwan.³

Some people say that China is already modernizing its nuclear forces, so our actions on missile defense will not affect its decisions. Without question, China will deploy mobile, solid-fueled missiles that will be much more survivable than its old ICBM's. *Experts are divided* over whether China has decided to do much more than a one-for-one replacement of old systems. If China wants to maintain the ability to strike a dozen or more U.S. cities, however, Dr. Dean Wilkening of Stanford University estimates that *deployment of our proposed limited national missile defense could compel China to deploy literally hundreds of long-range ballistic missile warheads*.⁴ Would the world really be safer if China did that? *Would we be safer?*

There's also the question of what those hundreds of warheads would look like. Would China build hundreds of new ICBM's, or would it put MIRV's on its missiles? Some experts believe that if China decided to MIRV its ICBM's, it would have to resume nuclear testing. In my view, that would put a stake through the heart of the Comprehensive Nuclear Test-Ban Treaty. The demise of that treaty, in turn, could well lead other countries to question their commitment to nuclear non-proliferation.

The bottom line is that a U.S. move toward deploying the Pentagon's proposed limited national missile defense could bring plenty of unhappy consequences. How do you weigh those risks against the benefits and risks of other options? My next letter will look at a couple of those other options.

³Bates Gill and James Mulvenon, "A Look at...The China Puzzle: Goal: Build A Missile Defense; Problem: How To Handle Beijing," *The Washington Post*, March 5, 2000, p. B3.

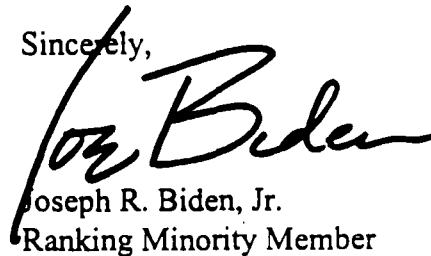
⁴Personal conversation with Dean Wilkening. See also his Adelphi Paper No. 334 (2000), *Ballistic-Missile Defence and Strategic Stability*, Table 1, p. 40.

For now, let's just look at the risks. A prudent course is to minimize those risks, rather than allowing great hopes to cloud our vision of unhappy realities. Moving to deploy the Pentagon's proposed system would clearly risk an offense-defense arms race with at least China. It would probably also require ending the ABM Treaty, with all the implications of that step for the START process, for allied confidence in our leadership, and for non-proliferation. If we want to *really* scare ourselves, we can ponder whether China would enter into a military confrontation with Taiwan before 2005, in order not to wait for the United States to wipe out its deterrent capability.

On the other side, deferring a decision entails a *risk* (but not necessarily a probability) of leaving the United States technologically vulnerable for some years to a North Korean missile attack. I say "technologically" vulnerable, because nobody really thinks North Korea would *actually* fire its missiles at us. The *real* vulnerability is to North Korean *deterrence* of U.S. action. I argued in my second letter, moreover, that our history with China suggests that North Korea would be able to deter a U.S. effort to *conquer or overthrow* its regime, but *not* a U.S. defense of South Korea.

I have no desire to be deterred by North Korea. If we weigh the risks, however, those that we accept by moving toward deployment of the Pentagon's proposed system *simply dwarf* the realistic risks entailed by a delay of, say, a few years. When defense officials call this a "high-risk" program, they mean technical risk; and that risk is bad enough, as Carl Levin and Robert Byrd made clear yesterday. When you add in the risk to our broader national security interests, I don't think it's even a close call. The deployment decision *must* be deferred.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Biden". The signature is fluid and cursive, with a large, stylized "B" and "D".

Joseph R. Biden, Jr.
Ranking Minority Member

RICHARD G. LUGAR, INDIANA
CHUCK HAGEL, NEBRASKA
GORDON H. SMITH, OREGON
ROD GRAMS, MINNESOTA
SAM BROWNBACK, KANSAS
CRAIG THOMAS, WYOMING
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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, DC 20510-6225

July 27, 2000

Senator Biden's 6th Letter on National Missile Defense

The Honorable Tom Daschle
United States Senate
Washington, D.C. 20510

Dear Tom:

Two weeks ago, in my first letter to you on national missile defense, I wrote: "If we are not to squander our material wealth and our world leadership, we must consider carefully not just whether a missile defense is technologically feasible, but also whether it will maximize our overall national security." Since then, even the Secretary of Defense has acknowledged that he cannot yet say the Pentagon's proposed system is technologically feasible. The many risks associated with proceeding to deploy that system tilt the scale sharply in favor of deferring any deployment decision.

In fairness to an issue that goes to the core of our strategic doctrine, however, we ought to consider the basic point that missile defense advocates raise: given the likely ballistic missile threat, if we do not build this limited national missile defense, then what *should* we do? What are our options, and how do they stack up? My first letter listed some questions we could pose to address those questions:

Are there realistic alternatives to the proposed national missile defense – either alternative systems or alternative negotiations? Would Russia and China live more easily with a boost-phase defense that was clearly aimed at North Korea, Iran and Iraq? What are the prospects for North Korea giving up its long-range missile and nuclear weapons programs? Will Russia and China help persuade North Korea and Iran to give up their missile programs, so as to avert a U.S. missile defense deployment? Would the high cost of a national missile defense be better invested in inducing other countries to drop their long-range missile programs, or perhaps on defenses against ship-borne short-range or cruise missiles that might be launched at us more easily and anonymously?

Frankly, I remain a skeptic on national missile defense. I think that Third-World dictators can, in fact, be deterred from firing long-range missiles at us. Our *overwhelming* military might, combined with the will to use it and an enemy's certain knowledge that we would know what country had fired missiles at us, makes ICBM's one of the *least* effective means of attacking us or of limiting our freedom of action in a crisis. Such weapons can at best deter us from trying to overthrow a regime, for only under that circumstance is a foreign threat to fire its ICBM's at us even remotely credible.

Having said that, however, I think we all understand the moral argument for seeking an alternative to mutual deterrence based on holding hostage the lives of millions of innocent people. We all understand, also, the desire for a hedge against the unthinkable, be it a crazed dictator or an accidental or unauthorized launch. Finally, we can accept – in theory, at least – the principle that *a measure* of defense need not be incompatible with mutual deterrence. Aside from the still-daunting technological challenges, however, there is the basic question of *how to get there* without incurring risks and costs beyond the bounds of prudence.

What are the technological alternatives to the Pentagon's proposed limited national missile defense? Many conservative critics still seek a much more robust national missile defense, which would include space-based guidance and, eventually, space-based lasers or kill vehicles; the "Star Wars" ideal of the 1980's has yet to go away. Other conservatives – and also the Ballistic Missile Defense Organization in the Defense Department – see BMDO's proposed system as only the first step toward a "layered" missile defense that could well incorporate sea-based and space-based elements in the future.

What are we to make of these visions of a truly robust, perhaps impenetrable, national missile defense? Despite great strides in technology over the 17 years since Ronald Reagan first proposed the Strategic Defense Initiative, these systems remain technologically beyond our grasp. Their likely costs remain too high for Americans to accept, given the importance of competing priorities ranging from counter-terrorism to caring for an aging population. The international reaction to a serious American effort to build an impenetrable defense – which would wipe out Russia and China's deterrent capabilities – would be severe and the impact on American leadership in the world perhaps substantial.

While the likelihood of actually deploying a "Star Wars" defense is low, however, the *idea* of defending against all incoming missiles remains a potent force. It may still be shaping the goals and developmental efforts of BMDO. It very likely has an impact on the fears and reactions of foreign leaders and military planners.

In their study of Chinese nuclear forces, Drs. Bates Gill (of the Brookings Institution) and James Mulvenon (of RAND Corporation) make a useful distinction between *operational* doctrine and *aspirational* doctrine.¹ In China, they argue, doctrinal discussion of "limited deterrence" focuses military planners on counter-force concepts that go beyond the "minimal deterrence" doctrine that has guided Chinese deployments to date. While some U.S. analysts see the "limited deterrence" concept as guiding China's ongoing nuclear force modernization, Drs. Gill and

¹Bates Gill and James Mulvenon, "The Chinese Strategic Rocket Forces: Transition to Credible Deterrence," in *China and Weapons of Mass Destruction: Implications for the United States*. Conference Report, 5 November 1999, National Intelligence Council and Federal Research Division, Library of Congress, CR 99-05 (April 2000), pp: 11-57.

Mulvenon see Chinese planners as separating their aspirations from their sense of what is realistic for their country.

China's discussion of "limited deterrence" underlies the claim by some U.S. supporters of national missile defense that China is already working to field much larger strategic nuclear forces, and will not react militarily, therefore, to our deployment of a limited national missile defense. By the same token, however, the acceptance of an impenetrable missile defense as an *aspirational* objective by many U.S. supporters of the limited national missile defense can be expected to influence *foreign* analyses of *our* intentions and of our likely future forces. The fact is, "Star Wars" *has influenced and continues to influence* Chinese perceptions and planning. It *may already* have affected Chinese plans and programs, and to the extent that we pursue a "layered" national missile defense, we *will* influence defense planning and investment in both Russia and China. In my view, *the risks of Russian and Chinese overreaction, or an arms race in Asia, and of undermining our vital non-proliferation efforts are far too great to warrant pursuit of a "layered" national missile defense at this time.*

What about a boost-phase intercept system, either with the large interceptor missiles proposed by Dr. Richard Garwin or based on *Aegis*-class vessels as proposed by Frank Gaffney, the Heritage Foundation, and some former Clinton Administration officials? My fourth letter noted the technological challenges that these proposals would have to overcome. I'll be surprised if the proposals that merely build on the Navy's theater missile defense efforts succeed. Dr. Garwin's proposal strikes me as more realistic technologically, although also yet to be proved.

The likely foreign reactions to these proposals – and their resultant implications for our broader national security concerns – are at least as important, however, as the technological aspects. The Garwin proposal is appealing not only because it would avoid the problems of decoys and sub-munitions, but also because it would counter the missiles of so-called "countries of concern" with much less impact on the deterrent capabilities of Russia and China. That may be why Russia, while still opposing strategic missile defenses that would require changes in the ABM Treaty, drops broad hints of interest in joint boost-phase intercept systems. China's deterrent capability would still be affected by, say, a boost-phase intercept site located near Vladivostok or in the Sea of Japan to target North Korean missiles. China could alleviate that impact, however, by relocating its missiles farther west or south – which should be readily accomplished as its new mobile missile systems come on line. To me, therefore, *the lesser international impact of a boost-phase intercept system makes it worth pursuing despite the technological challenges, even if it takes a few more years for this system to become operational.*

The *Aegis*-based proposals face not only the technological challenge of achieving boost-phase intercept with a smaller missile, but also the challenge of convincing other nations that the system is meant only to combat missiles from a few "countries of concern." The great mobility of an *Aegis*-based system would afford us a contingency capability to combat *some* missiles fired

from just about anywhere (if we had time to redeploy this asset in a crisis), and that is a strong selling point to some supporters of the idea. China and Russia would likely envision the system as being potentially targeted at their deterrent capabilities, however, and so might India and Pakistan. (Although it is doubtful that this system could destroy missiles that India or Pakistan fired at each other, its advocates have made that claim.) Those fears would have to be addressed, if we wanted to avoid the same sort of arms races and angry actions that the Pentagon's proposed system could spark. That's not impossible to do, but I think Dr. Garwin's proposed system would be more readily accepted by the world.

The airborne laser is interesting because it, alone among the options we have discussed, offers a realistic capability against short-range missiles and cruise missiles as well. Like the *Aegis*-based option, however, the inherent mobility of an airborne defense makes it difficult – although perhaps not impossible – to reassure Russia and China that this will not affect their deterrent capabilities. Further development of the airborne laser makes eminent sense, but before we deploy such a system, we will have to confront the full range of risks that a national missile defense poses.

There are other options, some of which will surely be considered by the President as he determines whether to move toward deployment of the Pentagon's proposed system. One would be to step back from national missile defense and concentrate instead on reinforcing our own deterrent posture, both militarily and through a firm and steady foreign policy. Personally, I think that the concern over "asymmetrical warfare" and blackmail in a crisis is largely self-inflicted. *We deterred the Soviet Union even when the balance of forces was complicated and uncertain; we can surely deter the tin-horn dictators of the Third World, if we will but resolve to do so.* I recognize, however, that the politics of this issue have left us unsure that the public will support a policy that is sensible, but unable to promise full protection from an unsettling threat.

Another option is to press forward, to some degree, with deployment of the Pentagon's proposed system, while stating that a *final* deployment decision still lies ahead. There *is* some logic to that, as the Pentagon's parallel development and deployment plan has important decision points in the years to come.

One problem, of course, is that action to deploy a national missile defense – no matter how preliminary – would violate the ABM Treaty, which the Administration sensibly wants to avoid doing. Lawyers have been commissioned to determine how far we can go without violating the ABM Treaty. Perhaps they will find a dividing line that is more than six months into the next administration, thereby relieving President Clinton of the need to give the required six months' notice of U.S. intent to withdraw from the Treaty. Does anybody believe, however, that *Russia* (or any other foreign country) will accept such an interpretation? For years, we said that when the Soviet Union poured concrete for its Krasnoyarsk missile defense radar, it violated the ABM Treaty. Is the Treaty different, now that *we* want to pour concrete? A new legal interpretation may convince *us* – and might even be correct – but it will convince nobody else. If

we are determined to preserve the option of an initial operational capability by 2005, and therefore must pour concrete in Alaska by May 2001, then *in the eyes of the world*, the President must give notice of withdrawal from the ABM Treaty by this November.

Another option, of course, is to *defer* a decision on deployment and to accept a delay until at least 2006 in the system's initial operational capability. Given the technical challenges inherent in the current "high-risk" deployment schedule, fewer and fewer people really expect a 2005 deployment. The Welch panels have warned that several elements of the deployment schedule are already highly stressed. Even the Secretary of Defense has yet to conclude that the proposed system is "technically feasible," let alone that it can really be deployed by 2005. Do we *really* want the President to rely upon an arguable new legal interpretation to maintain *that* flimsy hope of early deployment? Whatever the politics, I don't believe for a moment that the American people have a burning desire to put the President in that corner. As I urged you in my first letter, therefore, *whatever your general views on national missile defense, tell President Clinton that he should not move to deploy the Pentagon's proposed missile defense.*

I do not believe that we must reject for all time the idea of a national missile defense. In my view, however, a *political* transformation must precede the *military* one. We began that political transformation after the Cold War, moving from extensive conflict to a posture of careful cooperation and mutual assistance. We must achieve greater agreement on strategic affairs among the world's nuclear powers, however, before we will be in a position to move safely to a national missile defense.

Russia's recent proposals have yet to be presented coherently and may not be workable. They would be less useful for us than for Russia or Western Europe, which are vulnerable to threats from shorter-range missiles than those that we would face. But the Russian proposals are an important *base* upon which we may build a *different* approach to national missile defense.

In my view, we should pursue Russia's proposals very seriously. A cooperative NATO-Russia missile defense could *knit* Russia into a *Western* defense framework. Some Russian generals have even called for that, despite their distrust of us. *This could transform Russia's role in the world*, from that of a revisionist force to that of a state committed to pursuing its interests within a common security framework. Indeed, it *might* just pave the way for a *cooperative* shift from pure deterrence to an agreed mix of offense and defense.

Transforming our relations with China is another matter. Dr. Gill has suggested that especially if we were to adopt Dr. Garwin's boost-phase intercept approach to a national missile defense, China and the United States might be able to reach an agreement that limited both China's strategic weapons systems and our defenses. That won't be easy, given China's preoccupation with Taiwan and its resentment over our insistence that Taiwan's future be determined peacefully. A strategic arms agreement would offer China significant reassurance, however, and it would confer symbolic acceptance of China's role as a great power. We have

seen that there are other good reasons to pursue Dr. Garwin's proposal, so it might well make sense to pursue an agreement with China that would reconcile it to our deployment of such a system.

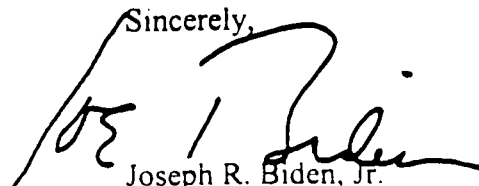
Finally, we should pursue diplomatic options to lessen or remove the long-range ballistic missile threat. Russia and China do appear to be urging North Korea to back away from its long-range missile development and export programs. There are good reasons not to take at face value North Korean proposals and demands, but there are far better reasons to pursue this issue with whatever help other countries provide. Were the North Korean threat to be removed, both the nature and the timing of the ballistic missile threat to us would change significantly. There would be less of a need to base our initial system in Alaska, and more time to develop and test the best technological approach.

In many ways, the debate over national missile defense is a debate between our fears and our hopes. We rightly fear a world in which Third-World dictators might threaten the rest of the world with their long-range missiles and weapons of mass destruction. Those who see no hope of transforming that world seek salvation instead in technology, which offers some protection, but could bring further instability as the world reacts to our actions.

What do we want for our grandchildren? Shall we buy protection against Third-World ballistic missiles, at the price of *more* long-range missiles and nuclear weapons in the world? Or shall we act as much upon our *realistic hopes* as upon our fears? Our sensible *development* of missile defense technology and our serious consideration of whether to deploy an initial national defense have captured the world's attention and made it aware of the threat posed by Third-World ballistic missiles. Let us not *squander* that success by pressing for premature deployment of a flawed system. Let us rather *capitalize* on it by pursuing *cooperative* efforts among the nuclear powers and regional leaders *to alleviate* the missile threat – and *then* build an international consensus to protect against those threats that cannot be removed.

Technology is a powerful force, with little regard for national borders. We cannot ignore missile defense technology, any more than we can ignore the missile and weapons technology that prompted the search for a defense in the first place. What we *can and must* do, however, is to *harness* this technology to serve our broader national security interests. Our children and grandchildren will judge us not by whether we deployed the first possible missile defense system, but rather by what sort of world we leave them. We must focus on our real objective, a world of strategic stability and great-power cooperation. Thus may we *master* ballistic missile defense, rather than being slaves to it.

Sincerely,



Joseph R. Biden, Jr.
Ranking Minority Member