Universities and the Nuclear Threat

An After Dinner Address
to the National Academy of Education
by Father Ted Hesburgh

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I would like to consider the possibility of our academic institutions to shape the future and I would presume to speak particularly of the moral dimensions of higher education and some of the impending ethical questions that attend such a consideration. While I speak directly to my fellow educators, the message is for everyone, everywhere. We have all been schooled in the proposition that the life of the university is the life of the mind, the free search for truth and its dissemination to the upcoming generation. This is at first glance an intellectual, not a moral task. Why then, the ethical or moral concern?

I have spent over three decades coping with such urgent moral problems as human rights, here and abroad, world hunger, immigration and refugees, transfer of technology for development, illiteracy, education, and many others. One day, two and a half years ago, we joined two hundred other universities in dedicating a whole day to the study of the nuclear threat to humanity. I had been involved in nuclear matters for fifteen years representing the Vatican at the International Atomic Energy Agency (Atoms for Peace) in Vienna, and in several other capacities since the advent of the Nuclear Age some thirty years ago. Suddenly, on a grey November afternoon in 1981, following Dr. Jim Mueller's graphic lecture on what would happen if a one megaton nuclear bomb were detonated over the adjoining city of South Bend, Indiana, I was walking back to my office thinking that this great University and all the other problems that had preoccupied me would be totally irrelevant: no humans, no problems. Then and there it seemed important to disengage myself from these other concerns, except education, and to do whatever I might about this quintessential threat of nuclear annihilation.

I am often asked, "Why the sudden concern? The nuclear threat has been with us for 38 years since the obliteration of Hiroshima and Nagasaki. Somehow we have survived."

I believe the sudden concern stems from the current accelerating trend to utter disaster which has, during the past 38 years and increasingly in the past two or three years, been escalating upwards. Remember, it was in 1945 that Albert Einstein prophesied: "The unleashed power of the atom has changed everything except our mode of thinking--and we thus drift towards unparalleled disaster." We now have available a million times the destructive power of those primitive yet devastating bombs that ushered in the Atomic Age in Japan in 1945. There are now four tons of TNT equivalent available in the form of nuclear bombs for every man, woman, and child on earth. That awesome destructive power is not just theoretically there, it is processed into warheads, targeted, poised on delivery systems, hair-triggered to very fallible computers, and there is a decision time of ten or fifteen minutes on whether or not to fire them, much less on the field of battle, and there will be practically no time for decision once these systems are placed in space, as is now being planned by both the U.S.S.R. and the U.S. To give some small sense of the rate of escalation, we have been told in recent years that the Russians are escalating wildly, which they have been doing, one new SS-20 a week aimed at Europe, while we have presumably been sitting on our hands. Well, while we have been sitting on our hands, we have developed the MX with ten warheads, the Triton submarine with new super accurate, more powerful missiles, the Pershing II, the cruise missile to be launched at sea, in the air, and from the ground, the B-1 bomber, and the upcoming Stealth bomber and now Star Wars. What would we have done if we were not sitting on our hands? One Triton submarine alone represents three times the total fire power exploded by both sides during World War II and we are building more than thirty of them. The Soviets likewise.

All the movement, on both sides, has been massively upward and destabilizing an already very touchy political situation between us. All of this is happening in a very volatile climate, where arms control talks go nowhere, and the leaders of the super powers have not met since President Carter signed the SALT II Treaty with Brezhnev in Vienna, still unratified. As the little girl, Samantha, who visited Russia at Andropov's invitation in the summer of 1983, asked: "If both sides say they will not start a nuclear war, why do they both continue to build more weapons?"

Never before has humankind--mostly mankind--had in their hands the power to destroy the total work of creation, fourteen times over, in a few moments, even accidentally. The newer weapons are greatly destabilizing, because they are either non-verifiable, like mobile SS-20's or cruise missiles that evade radar and defense systems, or they are offensive, first strike, like MX and its Soviet counterparts, rather than defensive and deterrent. The military on both sides are jittery and for good reason. Once the nuclear barrier is breached, for whatever reason, even no reason, or mistake, it is bound to escalate. Limited or winnable nuclear war is a most foolish illusion. As a Russian scientist recently put it: "These are not weapons because weapons are to defend yourself and if you defend yourself with this weapon, you are dead." "Neither," he added, "is nuclear war, war in any rational Clausewitzian sense of a continuation of politics by other means. Wars are won, but in nuclear war, there is nothing left to win, all is death, destruction, and devastation, your country and ours and probably most others." If you still have any illusions about this, read the recent novel Warday, that portrays America

(and Russia) after a modest exchange of some fifty missiles each. (We each have thousands.) Or read Carl Sagan on Nuclear Winter--even following a modest exchange of nuclear weapons.

It has to be the worst sin, the worst blasphemy, to utterly destroy God's beautiful creation, Planet Earth, the gem of our solar system, and all we have created here, so painstakingly, in a few thousand years: all our institutions that we have labored to perfect, all learning, all science and technology, all art, all books, all music, all architecture, every human treasure, everything, but especially millions of men, women, and children, all their future and all futures, utter obliteration at worst, a return to the Stone Age at best.

It has to be utter insanity for rational creatures to have painted themselves into such a corner, to have created such a monster. But in freedom, what we have created, we can uncreate, dismantle, and we must.

It will require, most of all, hope that it can be done, the beginnings of serious, high level conversations, with creative options on the part of the super power leaders. All movement must be reversed--downward for a change--done mutually and done in a totally verifiable manner. This is not a Russian or American problem. It is a threat that profoundly affects every human being on earth.

Hope that we can turn the tide is central to the task ahead. Otherwise, we are lost. The need for hope is implicit in a recent Leslie Gelb article: "Is the Nuclear Threat Manageable" (New York Times, March 4, 1984).

> In nuclear doctrine, it is necessary to have choices between massive retaliation and surrender. But it is risky to assume, as current doctrine would have it, that once a war begins, it can be controlled. And it is downright dangerous to believe there can be meaningful winners and losers, as some strategists in this administration believe. These recent trends in strategic thinking are highly questionable.
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> But what has to be understood now is that the future could be different, that the nuclear peace of the last 40 years could be transformed into nuclear nightmare. What is in the offing is not simply another weapons system or two, not just another phase of the old arms race, but a package of technological breakthroughs that could revolutionize strategic capabilities and thinking.
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> To be sure, there is time before all of these technologies mature into reliable weapons systems. But not much time.
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> Meanwhile, arms-control talks between the United States and the Soviet Union are getting nowhere. The two sides have not even been negotiating with each other for months. And when the negotiations resume this year or next, it must be remembered that they deal only with reducing and limiting numbers of nuclear weapons, not with the broader technological problems described here [in this article].
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> Most lamentable, there seems to be a habit of mind developing among Soviet

> and American officials that the problems cannot be solved, that technology cannot be checked, a kind of combination of resignation and complacency. They have gotten used to both the competition and the nuclear peace. Mankind may not survive on that alone.

And so, the need for hope that we can change the present impasse. Interestingly, barely a week before, Freeman Dyson, physicist at the Institute for Advanced Studies at Princeton, had addressed the same problem in the fourth article of a series in the New Yorker (February 21, 1984). Dyson had begun his series, now a book, Weapons and Hope, with the concept that this discussion is always torn between the warriers (the hawks) whose battle cry is "Don't rock the boat" and the victims (us) who seem too easily to say "Ban the bomb." This is indeed, as he remarks, a dialogue of the deaf. Each side is speaking to itself and nothing really happens. Interestingly, after an exhaustive analysis and a choice of a position "Live and let live" (read the book), Dyson concludes his analysis on a call for hope.

> The moral conviction must come first, the political negotiations second, and the technical means third in moving mankind towards a hopeful future. The first, and most difficult, step is to convince people that movement is possible--that we are not irredeemably doomed, that our lives have a meaning and a purpose, that we can still choose to be makers of our fate.
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> This lesson, not to give up hope, is the essential lesson for people to learn who are trying to save the world from nuclear destruction. There are no compelling technical or political reasons that we and the Russians, and the French and the Chinese, too, should not, in time, succeed in negotiating nuclear weapons down to zero. The obstacles are primarily institutional and psychological. Too few people believe that negotiating down to zero is possible. What is needed to achieve this goal is a worldwide awakening of moral indignation, pushing the governments and their military establishments to get rid of these weapons which in the long run endanger everyone and protect nobody.
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> ...The basic issue before us is simple: are we, or are we not, ready to face the uncertainties of a world in which nuclear weapons have been negotiated all the way down to zero? If the answer to this question is yes, then there is hope for us and for our grandchildren.

Dyson's final answer is to quote Clara Park, "Hope is not the lucky gift of circumstance or disposition, but a virtue like faith and love, to be practiced whether or not we find it easy or even natural, because it is necessary to our survival as human beings (ibid., p. 103)."

Curiously, hope, like faith and love, is not one of the moral, but a theological virtue. It becomes even more necessary to transmit hope to our students, who so often feel hopeless in the face of such cataclysmic issues, when we consider how the purely intellectual aproach to this nuclear problem has brought us even closer to the abyss. Fred Kaplan, in a recent book, The Wizards of Armageddon, portrays the efforts of the

intellectuals who have elaborated American nuclear policy while rotating between the Departments of Defense and State and the national think tanks. After almost 400 pages of record, he concludes:

> They performed their calculations and spoke their strange and esoteric tongues because to do otherwise would be to recognize all too clearly and constantly, the ghastliness of their contemplations. They contrived their options because without them, the bomb would appear too starkly as the thing that they had tried to prevent it from being, but that ultimately it would become if it ever were used--a device of sheer mayhem, a weapon whose cataclysmic powers no one had the faintest idea of how to control. The nuclear strategists had come to impose order--but in the end, only chaos still prevailed (The Wizards of Armageddon, Simon and Shuster, 1983, pp. 390-1).

Is it conceivable that universities and colleges who traditionally have been rational and objective critics of our society, local and global, can be silent in the face of the nuclear threat? Is it possible that our students can prepare to be future leaders and still not learn from us the dimensions of this nuclear threat, the moral problems involved, and possible solutions, if only they have hope that a solution is truly possible? It is mainly of their futures that we speak. Our lives are on the downside.

I have spoken of the pursuit of truth as our greatest moral imperative. There is no truth about the world and humankind today that does not become darkened in the shadow of the thermonuclear mushroom and nuclear winter.

What to do? Many things. While the problem is fundamentally geo-political, politicians are mostly concerned with what their constituents are saying, especially if it is loud and clear and universal. I fully realize that our opportunities for political action far transcend that of those in controlled societies, especially behind the Iron Curtain. But even there, one finds great and, I think, sincere concern. One would have to be crazy not to be concerned. Again, as a top Russian scientist told me: "I'm really worried about your computers, and ours are worse."

Each of us and each of our institutions must do what we can do best, and there are some things we can do together. The nuclear problem involves the expertise of all our faculties and departments.

There is no dearth of intellectual materials. I have already quoted several authors. In the short time that I have become involved, dozens of books and hundreds of articles have come my way.

The book (earlier a New Yorker series) that I read first and found better at description than prescription was Jonathan Schell's Fate of the Earth (Alfred A. Knopf, New York, 1982). He has just published another, The Abolition (Alfred A. Knopf, New York, 1984). Dyson's four articles, now Weapons and Hope in book form, is, I think, better at prescription and right on target in sensing that hope is the most important factor of all, especially for young people.

Then came the Bishops' Pastoral, "The Challenge of Peace: God's Promise and

Our Response," with two commentaries by Philip Murnion ("Catholics and Nuclear War") and James Castelli ("The Bishops and the Bomb"), for both of which I wrote introductions. The great virtue of the Bishops' Pastoral is that, for the first time, the problem is put into a rational and faith framework. It is modestly reticent in making final judgments, but it does assert unequivocably that there is no possible moral justification for killing hundreds of millions of innocent people. If so, we have a compelling moral problem with offensive weapons and also with deterrence as long as there is not a serious effort right now to reduce and eventually eliminate nuclear weapons.

On the difficulty of nuclear negotiations, there are two fine studies: Kennedy, Khrushchev and the Test Ban by Seaborg (University of California Press, Berkeley, 1981) and Smith's Doubletalk, The Story of Salt I (Doubleday & Company, Inc., Garden City, New York, 1980).

I have mentioned a recent novel, Streiber and Kunetka's Warday (Holt, Rinehart, & Winston, 1984). Another is Collins and LaPierre's The Fifth Horseman (Avon Books, New York, New York, 1981). Somehow novels and films (of which there are many) can grip us and our students in ways that serious factual books cannot. Perhaps they strike our emotions in ways that intellectual arguments do not.

In addition to these recent books and many articles and films, it would be useful to inform our students that professionals--which many of them will soon enough be--are organizing on this subject of the nuclear threat, almost by spontaneous combustion. The physicians are best organized at the moment. After their second international meeting in 1982 in Cambridge University, three American leaders, two of them Notre Dame graduates, joined three Russian medical colleagues to discuss the medical effects of nuclear war on Soviet national television. The videotape is available.

At their Amsterdam third international meeting last year, Dr. Bernard Lown, the Harvard co-founder of IPPNW (International Physicians for the Prevention of Nuclear War), said in his Presidential message:

> We can and must instill a sense of moral revulsion to nuclear weaponry and the Orwellian term "deterrence" which is but a sanitized word for indiscriminate and colossal mass murder. Our goal should be the widest conditioning of an anti-nuclear instinct as potent as hunger. Moral arousal, I believe, will help tilt the perilously balanced scale in world affairs towards survival.
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> President Eisenhower predicted that there will come a day when the people will generate such a mighty popular groundswell for peace that governments will be forced to get out of their way. Such a day is no longer remote for it is beckoned by the unleashing of the deepest forces embedded in humankind when threatened by extinction (IPPNW Report, Vol. I, No. 2, p. 15).

Lawyers have begun to organize. We have a chapter on our campus. Business leaders are essential in this crusade because they are presumed to be negative. Some assume that profits are all that concern them and again as President Eisenhower pointed

out in his Farewell Address, there is a military-industrial complex. However, there are many deeply responsible business leaders who share the common concern. Many of them are grandfathers, too. Anyone in doubt should read Henry Willens, The Trimtab Factor, (William Morrow and Company, Inc., New York, 1984). A group of young businessmen, many from Silica Valley, have retired prematurely from business to promote A World Without War.

To mention an unusual group, I am presently attempting to bring worldwide scientific and religious leaders together--making common cause for the first time since Galileo--against the nuclear threat.

The scientific statement, written and signed by representatives of 36 National Academies of Sciences at the Vatican in September, 1982, is very explicit, calling for moral judgment from religious leaders and indicating some possible first steps towards the ultimate elimination of all nuclear weapons. The statement was reproduced in full in the most popular technological review in the U.S.S.R., with a circulation of 3,000,000. We were able to reproduce it in Science, which reaches 100,000 American scientists.

May I quote just one paragraph from the Preamble of this five page statement which has been translated into the principal world languages and will be discussed by representatives of world religions in Vienna (already done), in Tokyo (on the 40th anniversary of Hiroshima and Nagasaki), in New Delhi, and Cairo.

> The existing arsenals, if employed in a major war, could result in the immediate deaths of many hundreds of millions of people, and of untold millions more later through a variety of after-effects. For the first time, it is possible to cause damage on such a catastrophic scale as to wipe out a large part of civilization and to endanger its very survival. The large-scale use of such weapons could trigger major and irreversible ecological and genetic changes, whose limits cannot be predicted.

The first religious reaction to the statement studied by a select group of religious leaders in the company of Americans, Russians, and other scientists who wrote it, is completely supportive. I quote only their concluding paragraph:

> What faith impels us to say here in Vienna must be fortified by the hope that it is possible to build a world which will reflect the love of the Creator and respect for the life given us, a life certainly not destined to destroy itself. Because of the deterioration of the international political atmosphere and the great danger posed by the rapid developments in military technology, humanity today is in a critical period of its history. We join the scientists in their call for urgent action to achieve verifiable disarmament agreements leading to the elimination of nuclear weapons. Nothing less is at stake than the future of humanity, with its rich and variegated cultures and religious traditions.

Among the signatories of this statement were the principal religious leaders of the United States, Protestants and Catholics, as well as religious leaders from as far away as Delhi, Cairo, and Sanaa, North Yemen (the Grand Mufti) and, of course, Franz Cardinal

Konig, Archbishop of Vienna who was central to this whole endeavor. These statements in their entirety are available on request.

At this point of conclusion, may I return to where I began? We are education persons, teaching students the wisdom of the past and pointing them towards the future. Their future, all of it, is threatened as never before in the history of humankind. There may be no future if the nuclear threat is not immobilized. As I asked previously, is it conceivable that they spend four years or more with us without being confronted with this unprecedented threat, at least to understand it in all of its dimensions, all the moral problems it implies, and what possible actions on their part might neutralize the threat lest it increase and eventually bring their world to utter devastation? At Notre Dame, we have begun a course on the nuclear threat, involving many of our departments, and using many of the books mentioned above. We have also launched an Inter-Faith Academy of Peace at our Ecumenical Institute for Advanced Theological Studies in Jerusalem, under the Presidency of Landrum Bolling, a distinguished Quaker, and Dean William Klassen, a Canadian Mennonite with much concern for this effort.

While these efforts will touch a few hundred students each year and, through the videotape of the course, we hope to reach many others, a way must be found for all of our institutions to become involved as widely as possible. I have no magic answers, but if the nuclear threat is all that I have described it to be, there is no moral concern more threatening in our times and we, as educators, simply cannot fail to find a way to use our enormous influence to find a strategic breakthrough. Even if we could influence our counterparts in the Soviet Union to meet and discuss informally and unofficially, our common interests in preserving the future for our students, it might be a beginning. I close by appealing to the most creative company I know, academe, to make a move in hope that might reverse the present headlong movement to the ultimate catastrophe--an end to all we hold dear, all good, all true, all beautiful, all persons.

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THE BISHOPS AND NUCLEAR WEAPONS:

The Catholic Pastoral Letter on War and Peace by James E. Dougherty. Published in association with the Institute of Policy Analysis, Cambridge, Massachusetts, Archon Books, Shoe String Press, Hamden, Connecticut, 1984, 225 pp., Cloth, $22.50.

This is the third book to appear in as many months on this subject. Given that James Dougherty is a Professor of Political Science and Vice President of the Institute for Foreign Policy, it has a different cast from the other two by Murnion and Castelli. In the author's words, this present study is designed "to probe beneath the contemporary emotional bumper-sticker philosophisizing which characterizes much of the current public controversy about the Church and nuclear weapons." (p. 17) He does this by a judicious study of the theological launching sites of the pastoral letter: "pacifism and just war theory and development." He also wisely concentrates on the notion of deterrence which is central to the letter and on which he somewhat differs from the Bishops' stance, if I read him correctly.

Dougherty also situates the letter in the changing intellectual position of the American Catholic community vis-a-vis Rome and the European Bishops. This historical perspective also includes consultations held with Rome and the European Bishops during the preparation of the letter, and the subsequent letters of the French and German bishops, milder than the American version and more in keeping with governmental defense policies there.

Dougherty is clear on where he stands and fair in both disagreeing with certain tendencies in the letter and in recognizing at the same time that the bishops' primary role is prophetic teaching, not technical details of arms control.

This book should be welcomed by scholars, since it has 35 pages of excellent footnotes and a comprehensive bibliography, much of which will be helpful to those not especially schooled in Catholic theology and tradition.

For myself, I would welcome another book, equally thorough, objective, and fair, that would conclude somewhat differently. The bishops most fervent hope was to put this quintessential moral question of all times in a framework of faith and reason, to stimulate discussion by raising serious moral questions about current defense policy, to take very few definitive moral positions such as: it is impossible to justify in any way the killing of a hundred million or more innocent people; there is no possible reason for starting a nuclear war given the great probabilities of escalation into all-out nuclear war; and, most importantly, deterrence is a policy to be only tolerated while serious efforts are being made to diminish the mounting nuclear arsenals, especially new systems that are totally destabilizing. The only rational ultimate goal is to eliminate all nuclear weapons. What humans have built, they can dismantle, a most difficult political task, especially given the present climate between the super powers, but not an impossible one.

Since Dougherty's book was written, there have emerged new technical studies that add Nuclear Winter to the horrendous lexicon of blast, heat, and radiation. The explosion of a small percentage of the currently available 50,000 warheads will trigger Nuclear Winter. Even if ~~only~~ one side initiates a substantial preemptive strike, all is over for his nation as well. Was there ever a more decisive moment for humanity to stop, look, listen, and act decisively together, for survival.

Rev. Theodore M. Hesburgh, C.S.C.
President, University of Notre Dame

Ted Hesburgh

[1984]

Some three years ago, my fellow correspondent, Tom Malone, then Foreign Secretary of N.A.S., called to suggest that it might be a good idea to get scientific and religious leaders together worldwide to make common cause against the nuclear threat to humanity. Several months went by until I was able to persuade Cardinal Konig of Vienna to join with me in inviting the heads of the Science Academies in Japan, India, France, England, Germany, the U.S., the USSR, the Pontifical Academy, and China to meet with us in Vienna to discuss Tom Malone's idea. Most of them came, except China, and met for three days in what was to be the first of six such meetings. Velikhov and Skryabin of the USSR, Keeny and Weisskopf of the U.S., Menon of India, and Chagas, the Brazilian President of the Pontifical Academy, became constant attenders at succeeding meetings.

Three meetings later, we had elaborated a five-page draft statement on the nuclear threat. In September of 1982, we invited the presidents of the thirty-six most important National Academies to a meeting at the Vatican to discuss and approve the final scientific statement to be distributed to religious leaders worldwide for their discussion and comment. Over twenty of the presidents came and more than thirty academies were represented. Frank Press, Charles Townes, Spurgeon Keeny, Howard Hiatt, Tom Malone, and I were there from the U.S. Six countries from behind the Iron Curtain attended with Yergeniy Velikhov again representing the USSR. After two days of intense discussion, we unanimously approved a very strong statement

which we delivered to Pope John Paul II when he attended our final session. He encouraged us to deliver it also to all religious leaders of the world. In the U.S. we published the full statement in Science; in the USSR three million copies were reproduced in their most popular scientific and technical magazine.

The fifth meeting, mostly of religious leaders from as far away as India and Yemen, was held again with Cardinal Konig in Vienna. Keeny, Weisskopf, Velikhov Hiatt, and others were also there to explain the scientific statement. From this meeting came a shorter statement of the religious leaders from major faith traditions, including the top Protestant and Catholic leaders in America, giving a new and strong dimension to the scientific statement.

Both statements were then distributed worldwide -- perhaps the first such joint endeavor of scientists and religious leaders since Galileo.

Last Summer, I personally delivered both statements, in Mandarin, to the President, Vice President, and Secretary General of the Academia Sinica in Beijing with the request that they discuss and, hopefully, endorse it. Copies in Japanese and Hindu were also personally delivered to scientific and religious leaders in Tokyo and New Delhi.

Tom Malone then organized a new type of meeting, of about thirty members, half scientists from the major nuclear powers, including China this time, and half religious leaders, Christian, Jewish, Muslim, and Buddhist. This time we met at the Villa Serbelloni in Northern Italy, courtesy of the Rockefeller Foundation.

The meeting was sponsored by the International Council of Scientific Unions and the University of Notre Dame's Academy of Peace at Tantur, Jerusalem.

This time we spent a whole week in discussion, ending on Thanksgiving night when the Italian staff actually came up with a turkey dinner.

The rapport between the five nuclear power representatives, as between the religious and scientific leaders, was extraordinarily cordial and fruitful. This was the first meeting Velikhov missed, since he was on his way to London with Gorbachov, but we did have a strong USSR delegation with a religious member for the first time, Archbishop Kirill of Leningrad. Carl Sagan and the Director of the Russian Space Agency, Rauld Sagdeev, and their collaborators conducted a thorough discussion of Nuclear Winter, another dread addition to the lexicon of nuclear terror: blast, heat, and radiation.

We would like to share with our readers the brief statement which was unanimously endorsed by all our participants and released simultaneously at Moscow and Notre Dame -- another first.

Tom → Here comes the statement and the signers. - Copy enclosed

We plan to continue these efforts. There will be another meeting at the Pontifical Academy in Rome during January of 1985. The emphasis will again be on Nuclear Winter. There will be at least six American participants, most of whom have participated in our previous meetings.

Thomas Malone
Father Ted Hesburgh