

when there was something that bore directly on the responsibilities of that department.

I realize that obviously everybody is interested in knowing what the effects of nuclear war are likely to be. I think most of us who were alive back in 1945 have long been well aware of the effects of nuclear blasts and nuclear war. But the Department of Defense is not the agency that ought to be investigating this phenomenon.

It is my understanding that in August 1983 a seminar on nuclear war was held in Erice, in Sicily, in connection with an appeal from the Pope. That seminar included a number of Nobel Prize-winning scientists. Dr. Teller represented the United States, as well as a member of our own committee staff. Dr. Eugene Wigner, of the United States, also attended, also Dr. Eugeny Velikhov of the Soviet Academy of Sciences.

These people established that the problem was, indeed, tremendously complex and would probably take years to solve and would require the best scientific minds available.

Certainly the Department of Defense should do its part, and the purpose of this amendment is to make certain that if the Department of Defense does have some involvement in these studies it should cooperate. But it is certainly not the agency that ought to undertake this whole study.

I urge the adoption of the amendment.

Mr. SEIBERLING. Mr. Chairman, will the gentleman yield?

Mr. STRATTON. I would be happy to yield to the gentleman from Ohio.

Mr. SEIBERLING. I thank the gentleman for yielding.

Mr. Chairman, if the Department of Defense is not interested in this, I wonder what department would be? Are they not more interested than anybody else in the consequences of a particular type of warfare?

Mr. STRATTON. I am not an expert in nuclear winters or nuclear summers either, for that matter, but the proposals that have been circulating here in the last few days have dealt with climatic, environmental, and biological matters, not military matters.

Mr. SEIBERLING. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, I wonder if I could ask the gentleman a further question. I suppose that \$1½ million might be adequate for the Department of Defense for 1 year to contribute to learning something about this problem, but suppose the amount turns out to be inadequate? Then what?

Mr. STRATTON. If the gentleman would yield, I would say in reply to the gentleman that the items that have been circulating around here, as I said previously, deal not with defense matters, but with climatic matters, envi-

ronmental matters, and biological matters. These are not the kinds of responsibilities that the Department of Defense is equipped to handle.

We have other agencies like NOAA. We have the EPA. We have the nuclear weapons policy. We have the Arms Control and Disarmament Agency. For some of these items, the Department of Defense is certainly not specifically seized with these particular items. It would be a mistake to suggest that the Secretary of Defense, who has big enough authority as it is, to try to maintain the security of our country, should not be required to undertake matters dealing with the proper sphere of other departments.

Mr. SEIBERLING. I would certainly agree that the Department of Defense should not be the lead agency, probably the National Science Foundation should, but I do hope that the gentleman believes, and I think his amendment concedes, that the Department of Defense might be called upon to contribute to a multiagency study if it is to be a truly realistic and meaningful study.

Mr. STRATTON. If the gentleman will yield further, that is exactly the purpose of the amendment, I will say to my friend from Ohio, to authorize the Secretary, so that he has that authorization, and if he would feel that more than \$1½ million would be necessary for his participation, it is conceivable that we might reconsider that figure.

Mr. SEIBERLING. I thank the gentleman, and I would like to say that I have been to two briefings, by Dr. Carl Sagan and Dr. Paul Ehrlich and other scientists, and it does seem to me that this is a subject which should require a really maximum effort by the Government to try to nail down as much as possible the consequences which, if it turns out are as horrendous as the scientists who briefed us believe, would be the ultimate in human disasters. They indicated that a nuclear exchange involving as small an amount as 100 megatons could bring on a nuclear winter and plunge the world into a year-long period in which temperatures would be well below freezing for an entire year, wipe out agriculture, animal life, and possibly the entire human race.

So that is no small subject, and I would think the Department of Defense, as well as every other agency of the Government, and indeed every other human being, would want to get the answer to the extent that is humanly possible.

Mr. STRATTON. This is precisely what my amendment would do.

Mr. SEIBERLING. I congratulate the gentleman for recognizing that the Department of Defense has a responsibility.

Mr. BROWN of California. Mr. Chairman, will the gentleman yield?

Mr. SEIBERLING. I yield to the gentleman from California.

Mr. BROWN of California. I thank the gentleman for yielding.

Mr. Chairman, I am not at all sure what the purpose of the gentleman's amendment is, but in listening to this debate, I would like to ask if the gentleman is aware that the Department of Defense is spending substantially more than \$1½ million to determine the traumatic effect of weapons fire on dogs.

Does the gentleman feel that the problems are similar, the effect of weapons fire on dogs and a nuclear disaster to the whole globe?

Mr. STRATTON. If the gentleman will yield, I am not familiar with how much is being spent. But I certainly think that if we mean to protect our soldiers in combat and to provide them the top medical assistance on the battlefield, we are going to have to spend some money to understand what happens when particular weapons impact on individual bodies.

The CHAIRMAN. The time of the gentleman from Ohio (Mr. SEIBERLING) has expired.

(By unanimous consent, Mr. SEIBERLING was allowed to proceed for 2 additional minutes.)

Mr. BROWN of California. If the gentleman will yield further, the gentleman cannot extend his reasoning to include the effect of nuclear weapons on the entire human race? Does the gentleman not see any incongruity between spending that amount on dogs and a similar amount on the fate of the whole human race as a result of nuclear weapons?

Mr. SEIBERLING. I forget precisely how much is this bill, but it is over \$200 billion, and we are talking about a possible consequence of a nuclear war which would not merely wipe out the servicemen and women of the United States, but the entire human race. So it does seem to me that our sense of proportion would tell us that we should spend what ever it takes to find out the facts, to the extent they are ascertainable.

□ 1920

Mr. STRATTON. Mr. Chairman, if the gentleman will yield, I think the gentleman has agreed that the Department of Defense is not the only department that ought to be involved. But this particular piece of legislation which we are amending is one that is restricted totally to the functions of the Department of Defense. If we are going to learn these nuclear phenomena, as the gentleman has indicated, it is going to take some time. It is going to take a good deal of expertise.

As I indicated, the staff member from the Committee on Armed Services who attended the convention or the seminar in Sicily reported that Dr.

It is a sensible statement of policy about the procurement of weapons, and must now be translated from words to numbers: to numbers of missiles, numbers of warheads, and, ultimately, to numbers of dollars that the Congress will have to vote for the acquisition of these weapons.

For a change, we have an important strategic problem, the core of which is still reasonably in the future, rather than looming directly overhead. But now is the time to get underway a dialog between the administration and Congress on the issue of how much counterforce capability is too much.

I am, therefore, offering an amendment which interferes with no weapons program: which simply mandates the administration to think clearly and analytically about the definition of a first-strike capability, about the numbers of U.S. weapons that would comprise one, and about ways to keep those numbers below the threshold of a first-strike force, as the President has said he intends to do. This report would become the basis for discussion in the coming legislative year: a discussion which, hopefully, can be managed as a true debate on the needs of national policy, wherein we can debate and resolve the true extent of our needs, and the true requirements of a prudent approach to nuclear weapons.

The CHAIRMAN pro tempore. The question is on the amendment offered by the gentleman from Washington (Mr. Dicks).

The amendment was agreed to.

● Mr. McCURDY. Mr. Chairman, I have expressed concern on several occasions about the escalating cost of weapon systems. In this regard, I want to call attention to the committee's decision to reduce DOD's request for the advanced medium-range air-to-air missile [AMRAAM] from \$431 million to \$231 million, and from 174 missiles to 75. Indeed, the cuts were charitable, given the very poor record compiled by the Department of Defense in the contracting and management of this critically needed high-value weapons system.

AMRAAM is designed to be an all-weather, radar-guided, all-environment missile that will give our first-line fighter aircraft a marked advantage over Soviet aircraft in air-to-air combat, because of its launch-and-leave multiple-target capability at ranges beyond the armament of Soviet aircraft. However, a study by committee staff concluded that due to poor management, schedule slippage, and cost overruns, the AMRAAM program will not be ready for production in fiscal year 1985. Partly as a result of this study, the Air Force recently delayed its production decision on AMRAAM by 3 months.

In all fairness, the performance requirements specified for AMRAAM

had never before been attempted for an air-to-air tactical missile system of its size. It was obvious that development of AMRAAM would be a high-risk venture in state-of-the-art missile technology. Yet the Air Force—in a shortsighted attempt to transfer the cost risk to the contractor—chose to use a fixed price development contract. This strategy backfired because the Air Force agreed to pay penalties to the contractor of up to \$93 million if production did not proceed on a set schedule, regardless of whether or not the formidable technical difficulties of making the missile work had been solved or not.

Furthermore, the cost of designing and fabricating the missile was underestimated by 50 percent, and of the systems necessary to test it by over 100 percent. There is now significant doubt that the missile can be produced for the budgeted amount. Additionally, second-source production—so necessary to hold down costs—is now in serious jeopardy because the overall program has slipped by 4 to 6 months. I urge the Department of Defense to get the AMRAAM program back under control quickly. AMRAAM is desperately needed, but there is simply no way we can commit to produce it without knowing what it will actually cost.

At a time of enormous deficits and increased emphasis on controlling defense procurements costs, it is extremely disturbing that the Department of Defense has so mismanaged this vital program. If action is not taken to turn this program around by fiscal year 1986, I will seek to terminate it.

AMENDMENT OFFERED BY MR. ROSE

Mr. ROSE. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Rose: At the end of the bill add the following new section:

PROHIBITION OF CONDUCTING WOUND-TREATMENT TRAINING ON ANIMALS

SEC. (a) Chapter 101 of title 10, United States Code, is amended by adding at the end thereof the following new section:

"§ 2006. Wound-treatment training using animals: prohibition

"No funds available to the Department of Defense may be used to carry out any training in the treatment of ballistic wounds that involves the use of live animals as subjects."

(b) The table of sections at the beginning of such chapter is amended by adding at the end the following new item:

"2006. Wound-treatment training using animals: prohibition."

Mr. ROSE (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from North Carolina?

There was no objection.

Mr. ROSE. Thank you, Mr. Chairman.

Members of the Committee, this is a matter that was, I thought, dispensed with last year in the appropriations bill. The language in the full committee bill last year stated very clearly that the Defense Department was not to use live animals as subjects in ballistic wound tests.

I think you have all received today a copy of a very thoughtful letter from the Humane Society of the United States.

I am the last person in this body that would say that military doctors should not have the kind of training and practice that they need and deserve to meet any situation that they might be confronted with.

I talked today in my office to an Assistant Secretary of Defense who is in charge of this area, and he told me that the practice was to anesthetize animals, mainly goats in hospitals in Texas and in North Carolina, put them in a sling, shoot them with a high-powered projectile, provide some kind of training and then kill the animal.

Now, I submit to you, and I have talked to several doctors who have confirmed this, the best training for a doctor to receive is to get actual practice dealing with a human subject that has been shot. One of the recommendations that the Humane Society made was that subjects that had been killed had been used for the ballistic test.

I have a letter from the Royal College of Surgeons of England and it concludes by saying: "It is certainly true to say that the use of animals to gain surgical dexterity is prohibited under our laws and that this has not proved an obstacle to the effective training of young surgeons in the United Kingdom." Signed by Dr. Robert Sharp, the Secretary of the Royal College of Surgeons of England.

If we look at the record of what has been learned, I think we will see that the military has been following a path of least resistance in an effort to expediently provide a certain level of barebones experience for training medics and doctors.

I submit to you that the better training and clearly the more humanitarian path that we could tell the Defense Department to follow would be to rotate these medics and to rotate these doctors through big city hospitals in this country where all kinds of experiences of ballistic damage, far greater than that which is achieved by dissecting the blown up hind quarter of a goat, could be achieved.

The other possibilities would clearly be to offer, offer as teams, the medics that need this training, to the armed services of foreign governments, such as Israel, such as Lebanon, such as

anywhere in the world where combat situations exist today so that these men could receive firsthand training.

I submit that you would want a doctor working on your son, or your grandson, or your daughter to receive the best possible training that they could receive and it would be an actual, physical damage to a human, it would not be on the hind quarter of a helpless goat.

I submit we ought to solve this matter once and for all. We ought to tell the Defense Department, they cannot use live animals as subjects for their ballistic tests and we ought to move on to a more humane way of providing this training for our doctors, and do it at a higher level of competency than we are doing right now.

□ 2150

Mr. MONTGOMERY. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, I rise in opposition to the amendment. I feel a lot like Vice President Bush felt last year when he received a call from his mother. His mother asked the Vice President, she said: "The only time that the Senate lets you vote is when you vote on nerve gas." And that is kind of the way I feel tonight. The chairman has asked me to handle this amendment.

But I do rise in opposition to the amendment. I would like to point out that dogs and cats by law were restricted last year to be used by the Defense Department for medical training. It does affect goats, as the gentleman from North Carolina said.

The Defense Department got the word loud and clear last year that Congress wanted them to move away from testing on animals. They have tried. They have tried to use soaps, they have tried to use jellies, plastics, but it does not work.

So we have two Army posts that now do take action on live goats that have been put to sleep. There is no pain to these goats. But for training there is no other way unless the gentleman from North Carolina wants us to train on human beings. I do not know whether he wants to pick out a certain segment or not. But there is no other way but to train on animals.

Mr. ROSE. Mr. Chairman, will the gentleman yield?

Mr. MONTGOMERY. I yield to the gentleman from North Carolina.

Mr. ROSE. I thank the gentleman for yielding.

I do not know how the gentleman is trying to characterize this debate, but one of the suggestions has been that dead subjects might be a proper object of this kind of thing.

Using live animals, I say to my friend, is the main problem here and it is one that does not provide that much advantage to anybody who is getting this training. We owe our doctors a

better level of training in a more humane way.

Mr. MONTGOMERY. I thank the gentleman.

The gentleman mentioned about going into big city hospitals. That is not workable. They do not carry AK-47's, M-16's around in cities. The small guns that do damage are not good training for high-velocity combat weapons. Our doctors just cannot train on hospital patients. They have to use these animals.

Let me quote from a letter that was received from the Harvard Medical School from a Dr. Moore. It stated that:

This type of training is necessary unless we are to send green surgeons into combat for on-the-job training.

So we do not want to send our personnel overseas and train on live people. We do not have any answer. I know it is a rather unique debate to be talking about animals, but there is no other way that these surgeons can learn unless they train on animals. The animals are put to sleep. There is no pain to the animals. If we had years ago eliminated training, testing, and research on animals, we certainly would not have advanced very far in medical areas, especially in cancer and other diseases.

So I would hope that this amendment would be defeated.

Mr. NICHOLS. Mr. Chairman, will the gentleman yield?

Mr. MONTGOMERY. I yield to the gentleman from Alabama.

Mr. NICHOLS. I thank the gentleman for yielding.

Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, at first blush this amendment would seem to be unassailable. It appears to pit animal lovers against those who do not like animals. Since we are all animal lovers, who could oppose such a proposition?

Well, all of us should oppose this amendment because in fact it pits animals against the lives of young men, and possibly young women, who have been mortally wounded in service to our country. Military physicians simply cannot receive the training in treatment of high-velocity wounds any other way than by using laboratory animals.

Rather than take my word on this, I want to share with Members a letter from Capt. Kevin Keenan, a young Army doctor serving in Honduras who graduated from the Uniformed Services University of the Health Sciences School of Medicine. I will read an excerpt from the letter and include the entire text in my extension of remarks.

Captain Keenan begins by stating "emphatically" that animals used in the training are well cared for.

He continues:

The major issue at point is the need for live wounded tissue training of those most likely to face future combat medical challenges. There can be no reasonable scientific doubt that the nature of high velocity (assault rifle) bullet wounding is dramatically different from low velocity (pistol, light rifle) wounding. The squared increase of force with respect to velocity produces wounds of devastating effect. This difference is substantial and significant and definitely not easily understood or treated without prior exposure to the local and remote effects of wounding . . .

Anecdotal medical history provides examples of this fact being rediscovered by each generation of physicians involved in armed conflict, usually after having unsuccessfully and inappropriately treated wounded young soldiers with techniques more applicable to low velocity (civilian) wounds.

It must be recognized that anything less than high velocity wound experience for medical care providers represents a compromise in the quality of care to be provided on the battlefield.

Finally, Dr. Keenan asks:

Should the first live wounded tissue a medic or young physician sees be that of an American soldier, in the woods, in the dark, in the rain? Our lack of foresight and preparedness in the training of medical personnel may diminish the chances of that young American's survival, to the greater loss of our society.

Dr. Keenan answers his question with regard to his own experience in Honduras:

In my present duty, I have treated only two gunshot wounded Central American soldiers, but would have hated to tell either of these patients to "bleed a bit more slowly, I'm learning as I go along."

Mr. Chairman, in closing I want to remind Members that this Congress has already prohibited the use of dogs and cats for this type of medical training. The amendment before you, by prohibiting the use of any animals, would eliminate such training completely. If we accept the amendment, you can count on this: The sons and daughters of this country who we call upon to carry the ultimate burden of freedom in any period of hostilities in the future cannot be assured of experienced military medical care when they pay the price of that burden. I urge this body to defeat this amendment.

[From the Army Times, Apr. 9, 1984]

NO SUBSTITUTE EXISTS FOR LIVE WOUND TRAINING

(By Capt. Kevin N. Keenan)

As a 1981 graduate of the Uniformed Services University of the Health Sciences School of Medicine (USUHS) serving in Honduras with U.S. Army Special Forces, I feel entitled (in fact, obligated) to hold an opinion on the controversy regarding live animal wounding in combat wound training.

Having been an instructor and student for live animal training, let me preface any discussion of the issue by stating emphatically that animals are well cared for before wounding. They are fully and competently anesthetized during wounding and, if reawakened after wounding, receive attentive care in proper sterile medical fashion from stu-