

## PERSPECTIVE

### The NAEP and the 2002 Land Mine Resolution

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“Young man, would you like to beat Alekhine and win every game? All you must do is obey the fundamental rule.” “What is the fundamental rule?” “Quite simply, always make the strongest move.” Reuben Fine, relating pre-tournament advice from the German Siegbert Tarrasch to the Mexican Carlos Torre on chess strategy against the latter’s feared Russian opponent, World Chess Champion Alexander Alekhine.—*Great Moments in Modern Chess*, 1948, Dover Publishing, New York.

As figuratively as chess simulates military combat on a game board, land mines actualize consequences of combat on wartime battlefields and beyond. Global activism for years has protested land mine use because of its nonmilitary human consequences, but land mines also have environmental consequences. Though eclipsed by the human consequences, the environmental consequences of land mine use are patent, widespread, and unarguable: killing flora and fauna, obliterating habitat, and retarding ecosystem recovery in blast and fire zones. Such consequences legitimize environmental professionals’ concerns about land mine use, just as the environmental consequences of potential nuclear warfare legitimized rigorous study of (clearly more severe) “nuclear winter” effects.

Recognizing this concern of the Board of Directors, the National Association of Environmental Professionals (NAEP), at its 2002 annual meeting in Dearborn, Michigan, considered my resolution to advocate application of widely accepted, environmentally sound principles of hazardous waste management to abandoned land mines. Though favorable to the resolution, the Board published it for NAEP member comment and referred it to the NAEP Policy Committee before adopting it. Then, at its September 2002 quarterly meeting in Portland, Oregon, the NAEP Board adopted an amended ver-

sion of the resolution based on numerous comments, as recommended by the Policy Committee, reflecting broad support from NAEP’s membership.

Led by celebrities such as former Beatle Paul McCartney, actress Heather Mills, and the late Princess Diana, global efforts to eliminate abandoned land mines have focused broadly on banning their use by military forces entirely. These efforts chronically have been stymied. Opposition, most notably, has arisen from the United States government, based on the US military view that land mines remain necessary in some places, such as South Korea (to defend its border with North Korea).

The land mine resolution put before the NAEP Board in 2002 was formulated in a manner that aimed to circumvent such powerful opposition. It accomplished this goal by narrowing the relatively broad focus of global movements to ban land mines. The NAEP’s resolution specifically addressed only the management of land mines once they are introduced into the environment and then abandoned. At the recommendation of its members and the Policy Committee, NAEP also broadened the focus from abandoned land mines to “abandoned ordnance, including land mines.”

The adopted resolution maintains silence on the issue of whether initial use of land mines should be permitted, curtailed, or banned. It appears, therefore, to be substantially, if not fully, consistent with US Department of Defense and US Environmental Protection Agency policies regarding environmental stewardship (US Department of Defense, 1996; US Environmental Protection Agency, 1997). The NAEP Policy Committee stated to the Board its belief that the adopted version also addressed adequately all substantive NAEP member comments received. It stated further its belief that the resolution draws a necessary nexus between the intent to create a chain of responsibility for managing environmental and health risks posed by abandoned ordnance, and the environmental professional as a practitioner of risk management and environmental remediation. The final adopted resolution is presented, in full, in Figure 1.

### Where Do We Go from Here?

The resolution adopted should constitute the beginning of a long-term commitment by NAEP to addressing this issue. Any future NAEP initiatives must be fully consistent with 501(c)(3) tax status rules, but individuals and groups that do not have 501(c)(3) status of course may advocate more freely. I discern several directions toward publicizing the resolution as a means of educating people globally about how best to manage risks posed to public and environmental health by abandoned land mines and other ordnance. Publication of this article in *Environmental Practice* is a good start.

### *Commission and Circulate a “White Paper”*

The NAEP has the opportunity to commission, at reasonably manageable expense, a “white paper” explicating policy options for applying widely accepted hazardous waste management principles to abandoned land mines. The white paper should embrace the concepts of life-cycle management and “cradle-to-grave” responsibility, most essentially assigning legal responsibility to all parties involved, from production to final disposition. This was an early sticking point for the resolution, because manufacturers could be construed as being responsible for the downstream misuse of land mines by their customers. The white paper should explicate the kinds of responsibilities, if any, that might inhere in the manufacture and sale of such ordnance, such as conducting background checks and restricting sales to keep these devices out of the hands of potential terrorists and rogue states.

If a white paper is developed, NAEP should display it permanently and prominently in a publicly accessible area of its Web site. Bound copies should be made available for sale and targeted distribution. A media package and press release should announce availability of the white paper and give visibility to the NAEP initiative.

### *Communicate with Interested Parties*

As exemplified above, numerous parties are interested in the land mine issue glob-

**Resolution to Classify Abandoned Ordnance as Environmental Risks  
Subject to Principles of Hazardous Waste Management**

WHEREAS the US military classifies abandoned unexploded ordnance not used during acts of war, or otherwise abandoned after deployment during an act of war, including land mines as hazardous, and

WHEREAS waste, when not managed properly poses threats to human health and the global environment, and

WHEREAS abandoned unexploded ordnance is dispersed in the global environment at military facilities and in non-military sectors, and

WHEREAS abandoned unexploded ordnance poses risks to the global environment, and ordnance explosions may harm the environment where they occur; and may disperse hazardous products of such explosions, including gaseous and particulate matter, into the atmosphere from which they may enter additional remote ecosystems; and

WHEREAS abandoned unexploded ordnance poses risks to human health, and abandoned ordnance explosions can directly and adversely affect human health;

NOW THEREFORE, be it resolved by NAEP that we shall advocate application of principles of hazardous waste management to unexploded abandoned ordnance, including land mines, said principles to include the assigned responsibility for clean-up and damages exerted by the explosion of abandoned ordnance not used in the acts of war or for legitimate military training purposes to the nations or other agencies discharging them to the environment, and

FURTHERMORE, be it resolved by NAEP that, while not precluding the use of ordnance during training for war, the act of war, and under circumstances in which a nation's military has deemed it necessary to protect its interests, we promote the employment of responsible environmental professionals in the process of management of unexploded or otherwise abandoned ordnance as a hazardous waste.

Figure 1.

ally. The parties should be made aware of NAEP's approach, and encouraged to endorse it, even if not as a substitute for a more extreme approach that they might prefer. The various branches of the US military also should be contacted for comment and possible endorsement. The resolution seems to accord substantially if not fully with US military policy, such as the policy of deploying land mines that self-deactivate after a specified period of anticipated military usefulness.

### *Publish Research Evaluating Environmental Impacts*

Whereas the tragic loss of innocent human life is well documented, rigorous assessments of the environmental effects of land mine and other ordnance explosions must be gathered and published. Interested investigators should be identified. They should be invited to submit research and review papers for publication, perhaps in a special issue of *Environmental Practice*.

### *Sponsor an NAEP Annual Conference Session*

Once a body of rigorous scientific research is gathered, a session of an NAEP Annual Conference in the next few years should be devoted to presenting and synthesizing this information. One purpose is to inform interested conference attendees. A second is to increase conference attendance. A third is to bring together those environmental professionals actively involved in explicating ecological and related issues raised by abandoned land mines and other ordnance. In many areas of research, a similar function is served by the Gordon Research Conferences, sponsored by the nonprofit GRC Foundation, and supported by the American Association for the Advancement of Science (AAAS).

### *Establish an Abandoned Ordnance Working Group*

The activities described above together might generate increased awareness and

interest among members of the environmental profession and among NAEP members. With sufficient interest, an Abandoned Ordnance Working Group might be established to guide further NAEP activities in this area. Such a working group should be comprised of environmental professionals from diverse sectors, such as government, military, corporate, public interest, and so forth.

### *What Should NAEP Seek to Achieve?*

The NAEP's goal should be more than to go on record; it has already done that. The goal should be more than just to publicize the resolution. The goal must be to educate people, especially those involved in relevant decision making, to empower them to formulate enlightened policies in their spheres of influence. Eventually, one would hope that the spheres of influence would merge to encompass the highest level of international environmental decision making, which ought to be the United Nations Environment Programme and perhaps other United Nations programs.

We must be realistic, but we must aim high. We must participate, we must lead, in moving the world community closer to accepting moral and legal responsibility for its abandoned land mines and other ordnance. We must seek to raise the threshold for using such weapons in war and in anticipation of war, consistent with our resolution not to preclude such use under circumstances in which a nation has deemed it to be essential. To accomplish these ends, we must seek to introduce fundamental principles of hazardous waste management into the abandoned ordnance policy arena. In some places, such as in the US military forces, some of us might be surprised to find that these or similar enlightened principles have preceded us. These principles should include those found in the following two paragraphs.

Nations whose military forces lay mine fields or introduce other ordnance into the environment must accept responsibility for managing public and environmental health

risks posed by such weapons once their wartime use is suspended. This means that the locations of land mines and other ordnance should be recorded and maps created. It means that areas in which abandoned ordnance is present should be fenced, signed with warnings in relevant languages, and guarded as necessary to preclude entry by unauthorized persons, especially those (such as children) who may be unable to read printed warning signs. It means that clean-up operations should be instituted to restore such sites to suitable quality for flora and fauna to thrive as before, and also to support human habitation, because people are of course integral members of natural ecosystems.

Fundamental principles of hazardous waste management also include liability issues. Indeed, the legal concept of "joint and several" liability applicable to US Superfund sites might be deemed applicable to abandoned land mines and other ordnance as well. In joint and several liability, total liability can be assigned to any potentially responsible party, even if that party is only a fractional contributor to the problem. Joint and several liability constitutes a motivator for potentially responsible parties for collective negotiation among themselves to apportion liability equitably, each party being motivated by the fear of being assigned total liability.

Most generally, NAEP should select from the menu of activities presented above as suggestions, and also consider other possibilities not suggested in this short essay. The "fundamental rule" that nonprofit organizations must obey is the same as the fundamental rule quoted above for success at chess. Our moves, however, are somewhat governed by our [501(c)(3)] tax status—which prohibits us from all but a small amount of lobbying—as well as by other rules that differ from the rules of chess. These rules, however, do not preclude our education of the public on sound environmental policy for abandoned ordnance.

The activities suggested above are our chess pieces. By implementing them, we make our "moves." Our pieces should be deployed in a sequence of moves adhering to the

“fundamental rule” for winning at chess: *Always make the strongest move.*

Countermeasures Department, Indian Head, MD, 22 pp.

FRL-5686-4], RIN 2050-AD90; 62 FR 29 (12 February, 1997).

## References

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US Environmental Protection Agency. 1997. *Military Munitions Rule: Hazardous Waste Identification and Management; Explosives Emergencies; Manifest Exemption for Transport of Hazardous Waste on Right-of-Ways on Contiguous Properties; Final Rule*. 40 CFR Parts 260, 261, 262, 263, 264, 265, 266, and 270 [EPA 530-Z-95-013;

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