mond Ball and his colleagues, in the working group established by the American Academy of Arts and Sciences (AAAS) and Cornell University's Peace Studies Program to examine "crisis stability and nuclear war," proposed the exclusion of "all ballistic missiles belonging to one side, whether at sea or on land, from a circle of perhaps 1500 miles drawn around the other's capital." 146 They note that "were such an agreement in force, Washington would have a warning time of 15 minutes against a nuclear missile attack, as compared with much less today."147 Similarly, Paul Bracken writes that, were Soviet submarines to be excluded from American coastal waters. "The value to the United States of increasing the minimum warning time from five to twenty-five minutes is almost beyond calculation. It would sharply increase the survivability of the American bomber force and would greatly lessen the problem of ambiguous command authority arising from the threat of decapitation."148 Such a measure, he writes elsewhere, "would give both sides precious minutes to take such steps as searching for corroborating evidence of attack or even translating messages sent over the Hot Line."149

Richard Ned Lebow chooses a similar distance criterion for what he terms a "keep-out zone," namely 2,500 kilometers, but would ban cruise missile-firing submarines as well as SSBNs. The other proposals vary on this latter point, some specifying SSBNs only, others adding cruise missile-firing submarines, and still others neglecting to distinguish between the two, referring more vaguely to "missile-carrying submarines" or even "nuclear forces" in general. A number of authors have suggested a logical trade-off between forward-deployed Soviet submarines and American Pershing II IRBMs based in Europe; Bruce Blair noting that the intermediaterange nuclear forces (INF) negotiations and Strategic Arms Reduction (START) talks "would have to be bridged for this purpose." 151

<sup>146.</sup> Ball et al., op. cit. note 142, p. 88.

<sup>147.</sup> Ibid., p. 84.

<sup>148.</sup> Bracken, op. cit. note 134, p. 245.

<sup>149.</sup> In: Allison et al. (eds.), op. cit. note 138, p. 52.

<sup>150.</sup> Lebow, op. cit. note 130, p. 180.

<sup>151.</sup> Blair, op. cit. note 132, p. 300.