land canal that would still contain freshwater for most of its route. There seems to be no reason why we cannot have a canal that could accommodate ships of any size, yet still maintain the freshwater barrier that is so important.

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What Makes a Leader?

In the discussion of "Relevance in testing" by W. W. Turnbull, Devaney (Letters, 23 Aug.) suggests, "Relevance should pertain to the 50-odd years *after* college, not to the 4 to 8 years *in* college." He reaches this conclusion from his observation that a cross section of American leaders reveals only a small percentage of "straight A" students.

The weakness in this argument is the necessary assumption that current American leaders are the best suited to the job of leadership. In an absolute sense, this weakness cannot be overcome since comparative experience will never be available. One can speculate in this direction, however, and might conclude that the decision as to what is relevant in testing requires a determination of ends and objectives. If leadership is involved in a consideration of relevance of testing, the criterion should be success in leading, not simply attainment of a position of leadership.

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Japanese View on Defoliation

In 1965, the U.S. Armed Forces in South Vietnam began "defoliation operations" which strip the jungle with gasoline and napalm bombs after spraying large quantities of herbicides. According to the official U.S. announcement, these herbicides, including 2,4-D, 2,4,5-T, picloram, and cacodylic acid, were sprayed over a total area of 965,000 acres (390,530 hectares) (*1*). In addition, the United States announced on 12 May that the budget for "defoliation operations" would be increased by 24.9 percent in fiscal year 1969 and that it planned to spray about

38,000 kiloliters of herbicides in Vietnam.

From the ecological point of view, we fear that such wide-scale application of herbicides will deal a deadly blow to tropical forest ecosystems and cause serious damage to human beings and property. Even the report by the Midwest Research Institute admits the danger that the large-scale destruction of the vegetation in the high temperature and humidity of tropical forests may cause rapid erosion of organic matter in the soil and may turn the forest areas with the richest biological productivity into semipermanent lateritic barrens. The report also expressed fear that precious wild animals including the douc langur will be exterminated by the spraying. Moreover, it is possible that these herbicides will either kill small animals and fish, which are the important protein source for the natives, or contaminate them with poisonous residues. We recognize that such methods which cause these dangers are also the means of conducting war.

As ecologists, we share a world responsibility to prevent the destruction of nature by the thoughtless action of humans. At the 15th general meeting of the Ecological Society of Japan held at Ueda City, 2 June 1968, we resolved to demand that the United States immediately stop the large-scale military use of herbicides and forest burning in Vietnam. We also hope that ecologists everywhere will support our stand and take action on it.

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(The above resolution was also signed by 121 members of the Ecological Society.)

Reference

1. *Assessment of Ecological Effects of Extensive or Repeated Use of Herbicides* (Midwest Research Institute, Kansas City, Mo., 1 Dec. 1967).

Mathematics: Pro Bono Publico

The Council of the American Mathematical Society at its meeting on 28 August asked me to forward the following comments to *Science*:

Many mathematicians were dismayed and shocked by the excerpts of the speech by Donald Hornig, the Presiden-