Letters

Tanker Safety: Vessel Traffic Control?

The recent article by Luther J. Carter (News and Comment, 5 May, p. 514) and the letters by Wyman and MacKenzie (16 June, p. 1218) are instructive, but I do not believe the major point about tanker safety has been stressed. A recent report (*1*) showed that 85 percent of all shipping accidents result from human error. This is the area we must emphasize. We should not put our faith solely in gadgetry. Of what use is collision avoidance radar if it is not properly adjusted, not turned on, or if the person using it is incapable of understanding it or is too tired to correctly read the results?

The lessons from aircraft operations and control are too strong to be ignored. Pilots are carefully trained; they must go through retraining and are allowed to operate their aircraft on a schedule that permits them plenty of time to be rested and in top shape for the next operation. Most important, they subject themselves to control by other humans. These criteria should be applied to the operation of tankers. The individuals who operate them must be tested and retrained, and we must pay much more attention to a matter that has been curiously omitted: the number of hours of watch that a person stands and the general state of fatigue of those who stand these watches. I have been looking into this problem for many years and have been told by members of the Merchant Marine that far too often, particularly at the end of a trip when a tanker is approaching the coast or a harbor, those who are standing watch are virtually at the point of exhaustion. Stricter standards must be enforced as far as the number of hours that a person may be in control of one of these huge machines.

It is even more important to recognize that human error is always with us and that the best way to reduce the chance of it is to have one human watching over another's shoulder. No airport in the world would be safe without air traffic controllers watching over the operation. Granted, ships move at far slower speeds and in two dimensions, but the number of accidents that have occurred and the number projected in the future make it clear that vessel traffic control systems should be installed along our entire coast, and especially in those heavily congested areas near harbors.

In the Santa Barbara Channel, the number of tankers will double in the next decade or two, the number of oil platforms may double, and there will be cross-traffic when liquid natural gas ships are brought in. The stage is set for the collision of an oil tanker with a producing platform, particularly when those platforms are located between traffic lanes. Yet the Coast Guard position is that the situation is not serious enough to invest in vessel traffic control. I believe it is and that the cost of installing and maintaining that control is far less than the cost of cleaning up after one disaster. This same line of reasoning should be applied to all of the harbors, ports, and waterways along our coast.

ARENT H. SCHUYLER, JR.
Environmental Studies Program, University of California, Santa Barbara 93106

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Cancer and Mental Illness

The article on mind-cancer relationships by Constance Holden (News and Comment, 23 June, p. 1363), while of much interest, fails to take note of an important line of evidence bearing upon the link between cancer and the nervous system. I refer to the series of reports which establish that mental patients die of cancer at a rate which is only a fraction of that observed in age- and sex-matched general populations (*1–3*). The statistics published by Katz *et al.* (*1*) indicate that the long-institutionalized mental patient has relative immunity against fatal cancer. Katz *et al.* also suggested that this relative immunity may be tissue-specific; among the more than 3000 cases of cancer in mental patients that were studied, the expected number of brain and nervous system tumors would be about 20; in fact, there were none.

More recently Rassidakis *et al.* (*3*) concluded that the incidence of fatal neoplasia among mental hospital inmates is only about one-third that among noninmates; schizophrenia patients are especially unlikely to die of cancer.

Although the earliest reference to this subject which I have found is dated 1967, the observation must be considerably older, for I recall having been told about it by a noted clinician-researcher more than a decade earlier (*4*). In the older literature a number of incidental observations can also be found that bear upon this matter. For instance, in one of his books on variations in human physique, Sheldon (*5*) noted that males whose structures fall within a certain narrow range of somatotypes are strongly predisposed toward schizophrenia; in another place in that book he wrote that males of the same constitutional pattern are virtually immune to cancer.

Some of the writers on this subject have speculated about its basis. Galzigna (*6*) postulated a breakdown of cybernetic mechanisms which may be expressed as a loss of the capacity for regulation of either psychic or somatic processes, that is, either as schizophrenia or cancer. Csatary (*7*) proposed that a chemical agent used in psychotherapy may act as an antitumor drug. Rassidakis *et al.* (*3*) and I (*8*) have suggested the possible existence of a common immunological factor in cancer and mental disease. There are also the possibilities of mutual exclusion between psychosis and cancer on the basis of some factor in the mental hospital environment, or for genetic reasons. I know of no evidence that favors any one of these explanations over the alternatives, so the problem remains to be solved by future investigation. It seems that such study must inevitably shed light on the basic natures of cancer and mental disorders.

As a more general comment on Holden's article, I believe it should suggest to researchers that problems of disease in humans are most appropriately considered from a holistic viewpoint rather than as laboratory abstractions, and thus should serve usefully to counterbalance the ultrareductionist attitudes that presently prevail in the cancer research establishment.

RICHARD M. ROPPEL
Biomechanics Department, Michigan State University, East Lansing 48824

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