Random Samples:

We Have Met the Enemy and It Is Us

News comes from the Walter Reed Army Medical Center that between 1975 and 1977 no fewer than 3 young men at army bases were killed and 12 severely injured by falling soda machines (*JAMA*, 11 November 1988).

In all 15 cases the victims apparently were tipping the machines in an attempt to jar loose a soda that hadn't fallen or to trick the machine into giving them a free one. The three young men were crushed to death when they were unable to stop the forward momentum of the machine.

Major Michael Cosio, author of the report, says fully loaded machines weigh 800 to 1000 pounds. Cosio, an orthopedic surgeon at Walter Reed, says the machines are top-heavy, since the soda cans are stacked in columns. A force of about 179 pounds is needed to tip a large machine to the point of equilibrium, Cosio says. After that, there's no stopping it. Only a small amount of tipping is enough to cause the machine to topple over, especially if it is rocked. By the time a typical machine hits the floor, Cosio says, there is nearly 1000 pounds of force on the top front of the machine, which explains why survivors reported being surprised at how heavy the machines are.

It also explains how a seemingly innocent soda machine can kill, and why survivors suffered a variety of injuries including broken bones, contusions and punctured organs. Seven of the 12 survivors required surgery, and at the time of the report one was in a prolonged coma. One has a permanently paralyzed foot and ankle.

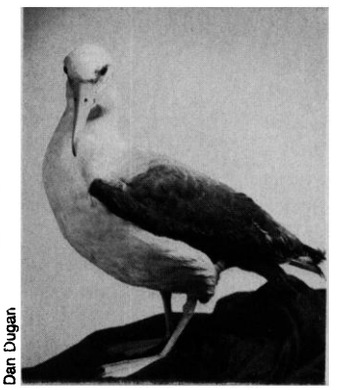
Since the data were published, Cosio has learned of 48 new victims, 11 of whom died. The 48 range in age from 10 to 33; all are male, 7 civilians.

Cosio recommends that machines be bolted in place of secured with a heavy chain to prevent their being tipped. The Department of Defense and the various armed services have all issued warnings to personnel or have bolted machines, Cosio said. Still, a young Marine recruit died in San Diego early last year. "The temptation to get something for nothing is too great," Cosio says.

Bagging the Albatross

Ever since the Ancient Mariner's fateful crossbow shot, few people have wanted to be stuck with an albatross. Not so Scripps physical oceanographer Joseph Reid, who has gladly accepted the prestigious (?) Albatross Award for his "outrageous insistence that ocean circulation models should bear some resemblance to reality."

The award, bestowed erratically since 1959, was hatched by Art Maxwell, John Knauss, and Gordon Lill. In 1952 the three Office of Naval Research geoscientists had founded the fanciful American Miscellaneous Society (AMSOC), a professional organization totally lacking officers, bylaws, an official membership, or journals. The organization's purpose was "to look at the lighter side of heavier problems," Maxwell told *Science* in 1973. In 1959, troubled that oceanography didn't have its own Nobel Prize, the trio dug up a stuffed Laysan albatross from the collection at Scripps and began awarding the Albatross Prize. Despite AMSOC's lighthearted approach, the prize itself is serious, and is awarded for oceanographic discoveries that are both important and unusual, Knauss says. Past recipients include such luminaries as Roger Revelle, Walter Munk, and Sir George Deacon.



Dan Dugan

Albie Herself

Today "Albie's" feathers are a bit ruffled from her international journeys, but Reid reports she's holding up well. She also has the distinction of being a former cover bird for *Science* (7 September 1973).

Reid has worked at Scripps since 1948, and is considered a leading expert on ocean water circulation. Among other things, he has shown the first evidence of circulation in the deepest parts of the sea. He's currently charting patterns of circulation in the South Atlantic, which he calls "the crossroads of the world's ocean water layers." The Albie award recognizes Reid's insistence on observing the ocean itself rather than relying on mathematical models.

Reid says his new status as Albatross laureate hasn't changed him much, and he points out the main difference between an Albie and a Nobel: "There's not a dollar comes along with it. Just a lot of trouble getting it home."

And no trip to Stockholm.

The Fire (Ants) This Time

In Washington, D.C., this year, proponents of the Super Conducting Supercollider may have to face a Congress full of legislators ill-inclined to fund the $4.4-billion project. In Texas they will have to face nests of ill-tempered fire ants.

Buried deep in the 10,000-page Environmental Impact Statement on the proposed SSC site in Ellis County, Texas, is the news that the area is infested with the fire ant, renowned for aggressively defending its nests by stinging anyone who gets too close. Area residents say the ants not only are unfriendly, but cause power outages by eating through electrical lines—obviously a concern for a particle accelerator.

Bradleigh Vinson, who heads the fire ant research group at Texas A&M University, agrees the ants are a problem, but not a serious one. All ants, he says, are attracted to electrical current over the distance of a few inches. Just why ants find electricity (and, thus, electric cables) attractive is a mystery. But sealed electrical relays keep the ants out, Vinson says, and overhead power lines minimize the chances of infiltration.

Ants can't be exterminated, only controlled, Vinson says. If the SSC site is heavily infested, regular applications of an environmentally safe pesticide will be needed.

Department of Energy officials and U.S. Department of Agriculture scientists assert the ants will be a pest, but will not imperil the SSC.

■ GREGORY BYRNE

"I myself have not learned big things in my own research. I'm not a Watson or a Crick or a Weinberg, for that matter. I've learned small things. But to learn something one day that nobody ever knew before is something that, I think, everyone should have a chance to do."

—Carnegie Institution president Maxine Singer on the 2 November "Bill Moyers' World of Ideas" on PBS.