Random Samples:

Welcome, Engineers

Those of you who have faithfully collected the National Science Board's publication *Science Indicators* over the past 16 years now have a new publication to collect. It's called *Science & Engineering Indicators.*

The NSB made the name change to "reflect an increased awareness of the complementary roles played by science and engineering research and education in creating both new knowledge and new technological products and processes," according to the introduction to the volume for 1987.

Engineers, of course, knew that all along.

The St. Louis Chinchillas?

Last fall, fans of the St. Louis Cardinals cried "foul" over the deafening racket caused by crowds at Minneapolis' Metrodome stadium during crucial games of the World Series (the Minnesota Twins won it in seven games).

Now Bill Clark—a hearing researcher in St. Louis and avid Cardinals fan—says he has evidence the noise really may have made a difference. Clark told a meeting of the Association for Research in Otolaryngology recently that noise levels he measured in the stands at the Metrodome were twice as loud as those at St. Louis' Busch Stadium. The crowd's roar in the concrete cave of the Metrodome very likely caused a temporary hearing loss in fans, stadium workers, and athletes alike, Clark says.

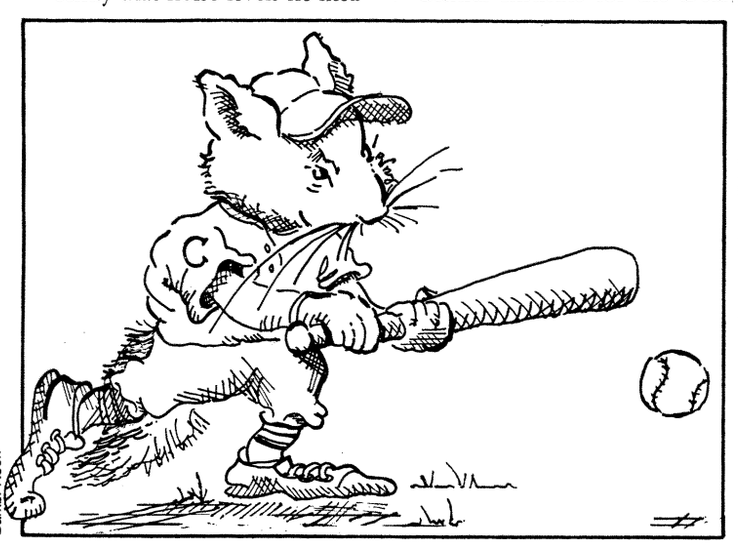
(A contingent of Minnesota scientists at the meeting reportedly interrupted Clark's talk by singing the Twins' fight song and waving the "Homer hankies" made popular during the Series.)

Clark used a dosimeter (a computerized sound-level meter that records 1-second averages) to measure noise during game six in Minnesota (a Twins victory) and game four in St. Louis (where the Cards prevailed). Even during the quietest parts of the games, the noise in Minneapolis averaged 92 decibels, compared with 83 decibels in St. Louis. "Perceptually, 92 decibels is twice as loud as 83 decibels," Clark says.

The Cardinals, unused to the noise level, may have had trouble hearing shouted signals and picking up auditory clues such as the sound of the bat hitting the ball. Clark thinks the Twins, who play 81 games in the stadium, have developed visual clues to offset the lost auditory ones. He notes that the Cards made four errors in Minnesota during the Series while the Twins made none at home.

Clark, a scientist with the Central Institute for the Deaf and the Department of Otolaryngology at Washington University, has also been working on how quickly the human ear can recover from loud noise. Together with colleagues at the institute and at Los Alamos National Laboratory he exposed chinchillas (a rodent with an ear structure and hearing similar to that of humans) to 95 decibels of sound for 15 minutes out of each hour. The tests lasted from 4 to 40 days. They found that while the rodents' hearing deteriorated as expected, after about 4 days it began to recover, even when the noise continued. At the end of 40 days, when all noise had been stopped, within 7 to 10 days the rodents' hearing returned to within 15 decibels of the normal range, considered clinically acceptable.

The question remains whether the noise-acclimated St. Louis Chinchillas can beat the Minnesota Twins in the next Series.



Bambi Rook

"Discovering something new in science is like Lewis and Clark rounding the bend. There's a feeling that no one has ever seen this before in quite the same way."

Stanford microbiologist Mark Davis, on his 1983 work in isolating the T cell receptor gene.

Antiques at the NSF Dinner

Glenn T. Seaborg, discoverer of plutonium and a fixture on the science policy scene since the late 1950s, is no stranger to high-level negotiations. Last month he found himself dickering with National Science Foundation officials over whether or not he could bring his 7-year-old granddaughter along when he picked up his Vannevar Bush Award. The award dinner is held in the elegant Diplomatic Functions Area of the U.S. State Department, and NSF officials had expressed concern about the possible effects of children on the State Department's antiques. "I don't know," said Seaborg, "whether they were referring to the furniture or the guests."

Another winner that night was Peter Schultz, age 32, the recipient of the Waterman award for his work on catalytic antibodies, called abzymes. Schultz, an associate professor at the University of California, Berkeley, holds the record for the fastest rise to tenure—25 months—in the university's recent history. "Glenn Seaborg told me he discovered plutonium at 28," Schultz said, "and the only reason I beat him to tenure was that he spent 3 years in the Army."

Two retiring politicians—Representative Manuel Lujan (R–NM) and Senator Lawton Chiles (D–FL)—received NSF's Distinguished Public Service Award. In accepting his award, Lujan noted that he had sat through many a congressional discussion of the geographic distribution of science funding. He then mused on the significance of NSF's giving awards to him (Southwest) and Chiles (Southeast). NSF director Erich Bloch rose to the occasion. "Geographical distribution had nothing to do with it," he intoned. "Strictly merit, strictly merit."

Tell Me. Don't Tell Me

A public relations firm doing work for Chiron Corp. recently called round to journalists with an important message: a major press conference was to be held the following day at the National Press Club to make an important announcement.

"What's it about?" one asked.

"Sorry, I can't tell you."

■ **Greg Byrne**