

an additional \$30 million a year for services to other Government agencies that they cannot do for themselves, and about \$3 million a year from industry. While work is in abundance, money is not. An estimated \$10 million is needed for the fire program research requested by Congress back in 1953, but NBS has gotten only \$3 million.

If the NBS is to continue to set the nation's standards, its laboratories must be unexcelled. But, says Branscomb, "We have permitted the state of the Bureau's equipment to fall far below the standard to which industrial laboratories maintain themselves." (Private industry invests about 10 percent annually into modernization of equipment; NBS only 2 to 3 percent.)

As significant as the funding question, however, is the one of philosophy: What should the Bureau be doing? The enabling act that established NBS contains no statement of philosophy, and there are varying opinions about what one should say. Secretary of Commerce Maurice H. Stans, under whom NBS operates, has said the Bureau's role is "assuring the maximum application of the physical and engineering sciences to the advancement of technology in industry or commerce."

Branscomb would like a more public-oriented wording: "to strengthen and advance the nation's science and technology and to facilitate their effective application for public benefit." This view of NBS could have important consequences. The Bureau does research on such common consumer items as tires—without advising on brand names. But much of the research is not made available to the public. While acknowledging that this hampers public visibility, one NBS official explained: "We are not a regulatory agency. If we got in the business of making public the research done for other agencies, we would create legal problems for others."

This kind of caution may be a legacy of the battery additive (AD-X2) case in the 1950's when NBS made public the fact that a manufacturer's additive was ineffective. In the process Allen V. Astin, then NBS director, was fired and then rehired. Since then NBS has assumed a low profile.

Whether the current hearings result in modifying the original enabling act of NBS, reorienting the philosophy, increasing the funding, or improving the laboratories of the nation's standard-maker is uncertain.

But some action on NBS is forthcoming. Bill HR 10766, coincidental to the committee hearings, calls for certain changes in the administration and fiscal practices of NBS. Also President Nixon's Government reorganization bill puts NBS in a business development role that diminishes its scientific role and is bound to attract criticism. □

Life in the inner city: Even worse since 1968

"Let your search be free. . . . Find the truth and express it," President Johnson said in July 1967 when he established the National Commission on Civil Disorders (SN: 4/6/68, p. 329). The commission, headed by Illinois Gov. Otto Kerner and composed of specialists in and out of the social sciences, was instructed to investigate the causes and effects of recent urban riots and to make appropriate recommendations. The President, however, did not agree with his commission's findings. They were rejected and the recommendations ignored. But ignoring a problem will not make it go away.

As if to prove this point the National Urban Coalition last week issued its Report of the Commission on the Cities in the 70's. It was co-authored by two men who had served on the original Kerner Commission: Sen. Fred Harris (D-Okla.) and Mayor John Lindsay of New York. Its task was to "take another inventory of the center city and determine what progress—if any—had been made." Sol M. Linowitz, chairman of the National Urban Coalition, says the new findings are released "with a deep sense of regret and shame."

The basic conclusion is that, "despite the Kerner Report's widely accepted finding that one major cause of the ghetto disorders of the 60's was the



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shameful conditions of life in the cities, most of the changes in these conditions since 1968—at least in the cities we visited—have been for the worse." They found housing still a national scandal and schools tedious and turbulent. The rates of crime, unemployment, disease and heroin addiction are higher. The welfare rolls are higher. And, with few exceptions, the relations between minority communities and the police are just as hostile as in the 60's.

Members of the commission visited the streets of Atlanta, Detroit, Los Angeles, Phoenix, Newark and El Paso. "We saw little in the physical conditions of those streets or of the neighborhoods around them to indicate that the protests of the Kerner Report had accomplished anything," the new report says. □

Throwing the biological clock off by altering a single gene

A blow for those who contend that inborn mechanisms control the timing of biological clocks (SN: 9/11/71, p. 178) has been struck by two California Institute of Technology biologists.

Hypothesizing that mutation of certain genes might lead to abnormal rhythms, Ronald Konopka and Seymour Benzer exposed *Drosophila* flies to a drug known to cause mutations, ethyl methane sulfonate. It did indeed upset the daily rhythmic cycles of both eclosion (emergence of the adult fly from the pupa) and locomotor activity. In one strain the rhythms were abolished altogether. In another, the 24-hour cycle of locomotor activity was shortened to 19 hours or lengthened to 29 hours. "The clock is still there," Konopka says, "but it is going at a different frequency." The changes in rhythms also carried over into subsequent fly generations. Recombination and complementation tests on these generations showed the rhythmic changes were due to the alteration of one gene, on the X chromosome.

The work is not final proof that the key to the biological clock is internal, but it shows, says Konopka, that "genes play a key role in determining or in specifying rhythms." The study is reported in the September PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES. □

Stormfury finds Ginger a cooperative hurricane

After two years, Project Stormfury (SN: 8/21/71, p. 128) has finally found another hurricane suitable for seeding experiments. Last Sunday, Stormfury scientists began seeding Hurricane Ginger, a massive but ill-defined storm located about 750 miles east of Cape Kennedy. Research planes dropped silver iodide canisters in the storm's rainbands (curved bands of clouds with heavy precipitation) in an attempt to disperse the storm's energy over a larger area. Though the scientists noted changes in the cloud structure of the hurricane, R. Cecil Gentry, project director, said it was too early to judge the effects of the seeding. Ginger was seeded again Tuesday. □