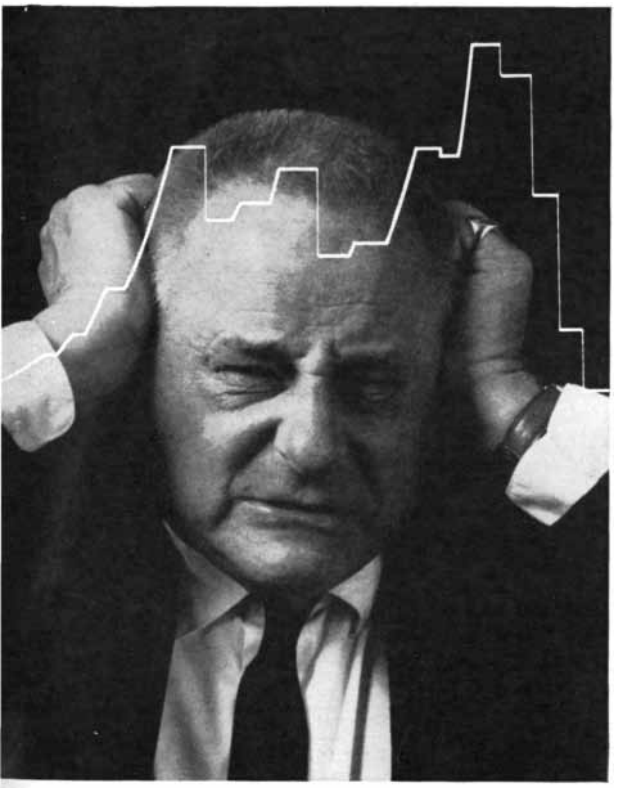
What can computerized systems do to improve your life...or extend it?

How to make airports quieter.

Jet aircraft are not designed to be noisy. The sound level depends more on how and where they're flown. And whether anybody cares. Around airports, people usually do. At Stuttgart, Germany, for example, after Hewlett-Packard installed an airport noise monitoring system, the level of noise dropped immediately. The pilots themselves became more "noise conscious" and exerted their own controls.



Actually, a number of things can be done—if you know when and where the noise is building up. Airport officials can change flight patterns to avoid sleeping neighborhoods; they can require new engine settings and approach angles; or redesign the airport!

Besides statistical analysis of airport noise, another boon for the future is that an offending aircraft can be detected in flight and brought to heel immediately. Chronic complainers can be mollified with statistics showing that aircraft are within their proper limits. This is all made possible by the speed and versatility of the HP 80500A Aircraft Noise Monitoring System, a combination of computer, real-time audio spectrum analyzer, and multiple remote monitors. This system can be programmed, with software provided, for any type of analysis the airport needs. The cost of a typical system would run about $70,000.

Airports can be easier to live around. For more information on how an HP airport system could help your community, write for Bulletin Number 80500A. Also yours for the asking is our 116-page Acoustics Handbook.

How to make the sound of music sweeter.

While integrated and thick film circuitry has contributed much to the listening pleasure you receive from ever smaller and more durable AM/FM radios, it's also introduced new problems with testing.

But now there's a system that makes possible and economically feasible complete checks of all IC's. One major manufacturer is using it to make the testing process 10 to 60 times faster than previously possible.

Complete circuit tests, including RF, IF, audio, local oscillators and other stages, can be made in less than 10 seconds. Individual steps can be checked in milliseconds. And the beauty of this fast, extensive testing

is that it also improves the quality of the set.

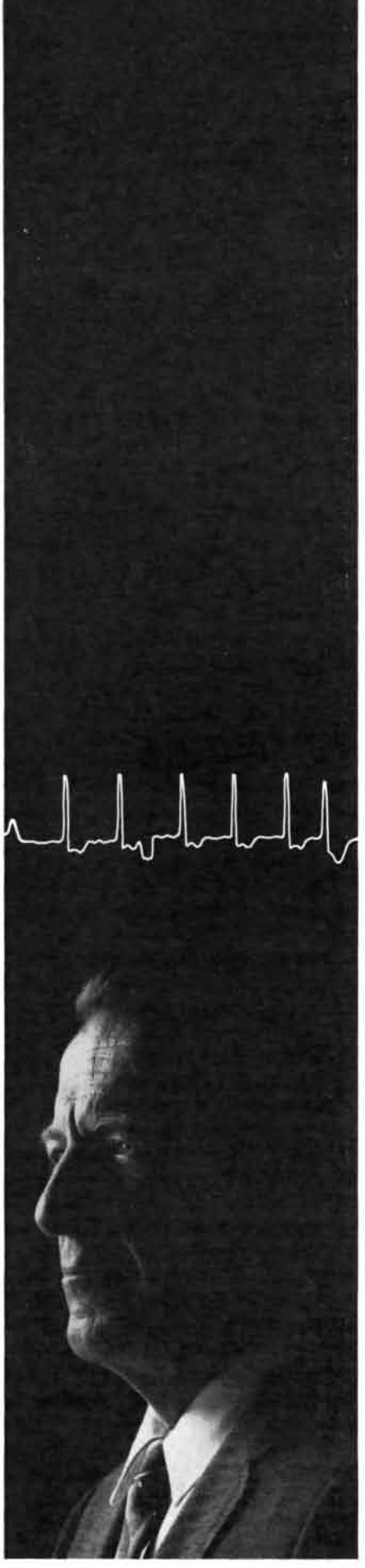
The automatic test system is the 9500A, typical of those delivered by the special HP Systems Division. It consists of several standard Hewlett-Packard instruments, controlled by one of our computers. The computer controls stimuli and the IC connections to which they're applied, then accepts and records measurement data.

This computer-controlled stimulus-response system can be applied to a wide range of production and quality control situations. It makes a previously complicated task a simple matter for any technician.

A detailed report on the 9500A system, which costs from $50,000, is given in the August 1969 Hewlett-Packard Journal. Write us for a copy.

How to keep track of unstable hearts.

The chances of complete recovery for patients who have suffered a common type of heart attack called myocardial infarction are generally good. But complications after this trauma can greatly complicate the physician's job, to say nothing of threatening his patient's life. Some 40% of all fatalities in the hospital due to myocardial infarction are caused by arrhythmias—electrical disturbances within the heart causing irregularities in the beat such as speed-ups, pauses or double-beats.



Since monitoring for medicine is part of Hewlett-Packard's business, we've been searching for a means to help doctors detect smaller arrhythmias, to give them a head start on treating major ones. The new 7822A Arrhythmia Monitor is such a means. When inserted into a patient monitoring system, it measures a pattern of heart signals that the physician establishes as "normal" for a particular patient. Characteristics of this "normal" pattern are stored in the instrument's memory, and each subsequent beat is compared to it instantaneously.

Beats which are abnormal as compared with this stored "normal" are classed as ectopic or out-of-place. Any excessive ectopic activity will trigger alarms to indicate a more serious condition.

This "extra ounce" of prevention can make monitoring even more effective toward achieving a complete recovery from myocardial infarction. If you would like a definitive description of this new instrument, drop us a note asking for publication No. 7822A. We'll also send you our pamphlet, "How Patients are Helped by Intensive Care Monitoring."

Why not call on Hewlett-Packard if a computerized system might help solve some of your problems. Hewlett-Packard, 1502 Page Mill Road, Palo Alto, California 94304; Europe: 1217 Meyrin-Geneva, Switzerland.

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