

# Rx For The Doctor's Paperwork: Automation

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SUNNYVALE—Lockheed Missiles & Space Co. here Monday unveiled a dynamic multimillion dollar plan to automate the doctor's prescription pad.

A high-level Lockheed brain trust showed Santa Clara County Supervisors its proposed "hospital information system," pushing computers into clinical medicine with such startling gadgets as video receivers and "light pencils."

Dr. B. L. Hisey, physician as well as electronic systems expert, said the system is aimed at alleviating a situation in which nurses spend "20 to 70 per cent of their time on paperwork away from the patient."

Hisey told the board the plan would curb mounting hospital costs and relieve doctors for more patient care.

In the highly, sophisticated system, for example, nurses, physicians and other medical personnel would program a computer center through a video matrix input-output device, a type of television receiver, with all patient data.

Personnel would operate the video device with magnetic identification cards coded according to their role in the medical profession or hospital strata.

Upon an attending physician's command, computers will feed the latest patient data back to a video screen. Using a "light pencil," he can prescribe medication, dosage, frequency and

other orders by simply pointing at any one of a wide range of medical treatment categories flashed on the screen.

Rapidly, the system can give the doctor all laboratory, X-ray, medication and other facts regarding his patient, from such remote points as other hospitals and, ultimately, even his office.

Medical orders fed through the video input devices to computers and relayed to nurses and other medical staffers are verified when a "data assembly" is flashed on the screen for the doctor's checking.

"It's three times as fast as the conventional entry," Hisey told supervisors.

In conventional handling of medication information, he de-

clared, errors run as high as 16 per cent.

Reezy said the American Medical Association-endorsed plan depends on physician acceptance" as its key to success. He said a pilot program in Santa Clara County would take about three years to develop completely.

It has been proposed to the U.S. Public Health Service and studies toward its implementation have been conducted at El Camino Hospital at Mountain View and a team is now checking County Hospital, he said.

Hisey said Lockheed proposes a pilot system using El Camino and County Hospitals and possibly Los Gatos Community Hospital. Hospitals, he said, could

cut system costs by sharing a computer center.

Board Chairman Charles A. Quinn said he'd hate to end up "having a baby instead of having an appendix taken out" through some quirk in the system.

Herschel J. Brown, Lockheed executive vice president, noted the importance of physician acceptance.

Lockheed officials also presented details of their space-age statewide information system study, calling for an ultimate federation of governmental computer centers.

Presumably because of its pioneering LOGIC computer data bank plan, Santa Clara County has been picked as pilot in a county-state-federal

computerization study.

Gov. Edmund G. Brown has announced the state signed a contract with Lockheed to make a study for the state information system.

Brown also announced a \$335,000 federal grant for the study.

The U.S. Urban Renewal Administration will make a \$225,000 grant for the computer study, Brown disclosed. The state will contribute \$85,000 and Santa Clara County \$25,000 in personnel or equipment services.

Without a statewide computerized information system on people, and other data, Lockheed officials said, the state will have enough paperwork to fill 334 miles of filing cabinets stretching from Sacramento to Los Angeles by 1990, Lockheed offi-

cials claimed.

If the present way of handling information continues, "by 1980 it will cost the state nearly \$2 billion. If the plan proposed by Lockheed is put into effect, by 1980 it will save the state \$170 million annually," they said.

This is contrasted to a \$10 million annual cost of developing the system over 10 years and a \$13.5 million a year cost of operating it thereafter, officials noted.

Despite the interlocking of computer systems of city, county, special district and state governments to build a mass of data, local jurisdictions would retain the autonomy of their own data systems, Lockheed spokesmen explained.

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