AIR TRAFFIC

Automation creeps in

FAA

Traffic control center in Leesburg, Va.: Some automation will trickle in.

Three times over the past 20 months, air traffic has been partially paralyzed by a work slowdown among the nation's 14,000 air traffic controllers. Included in their complaints have been strained working conditions and inadequate equipment. Over 124,000 flights per day are managed out of 21 regional centers, 320 airport towers and 30 radar approach facilities by these men.

This week, as controllers continued their slowdown, mostly in the East and Midwest, their colleagues were trying out a national automated control system for handling en route flight data.

The first step of the Federal Aviation Administration's National Air Space system (SN: 5/31, p. 531) went into operation at the Los Angeles Air Route Traffic Control System last month. This automation reduces controller workload by automatically handling incoming flight information messages, performing any necessary calculations and distributing flight data strips, as needed, to the controller positions. Although nine regional centers currently have varying degrees of automation, Los Angeles is the first to try the national program and hardware. The present information updating capabilities will be slowly increased. This will be followed by step two of the automation program. This will provide radar data processing, automatic radar tracking of aircraft and automatic display of vital flight information in electronically written letters and numbers on the face of the controller's radar display.

Four other centers will soon have the flight control automation—Fort Worth, Kansas City, Denver and Oakland. All of the 21 centers should have both steps by 1974.

As a part of this 10-year program begun in 1964, the first flight plan for an airplane was passed by automation across the nation last month. Over half of the nation's commercial airlines—about 1,000—have already been equipped with the transponders that can be hooked up to the data reduction centers at the control towers.

Although the program may not deliver the goods fast enough for the nation's beleaguered airways, traffic controllers who are working with the automated system in Los Angeles believe it is a step in the right direction. "The prime consideration of the NAS system is safety," says Jack Curtin, data systems officer at the Los Angeles center. "This en route automation is a step toward ensuring that the present record of safety not only be maintained, but improved." □

AUSTRALIAN CONVERSION

Ten years to metric

Australia is taking its first brisk steps toward conversion to a fully metric system of weights and measures over the next 10 years. The big step was the decision to convert. The Federal Government decided to adopt the recommendations of the Senate committee on the metric system and proceed with the conversion as soon as possible. Said the Prime Minister, John G. Gorton: "The Government believes that the lasting benefits which will result from this decision will greatly outweigh the . . . difficulties involved."

Last week the Government introduced legislation to establish a metric conversion board to advise and guide the conversion. Representing a wide range of interests, it will prepare a comprehensive program of conversion.

There will be no M-day for conversion, as there was with decimal currency in 1967. The switch-over will take place gradually over the next decade. As Gorton points out: "By allowing time for natural obsolescence and depreciation of plant and machinery, the cost of conversions will be greatly reduced."

In general there will be no compensation paid for conversion costs. There may be special circumstances in which some compensation might be paid. According to Nigel Bowen, Federal Minister for Education and Science, "The Government will be prepared to consider these on the recommendation of the metric conversion board."

The board will also be required to report attempts to take unfair advantage of the public during the conversion period. In some sectors, for example, where international standards apply, the use of nonmetric units will be necessary for an extended period.

During the hearing of the Senate committee on the metric system witnesses gave some indications of costs in various areas. The New South Wales Government estimated that its costs over a 10-year period would be more than $50 million. The Federal Department of Supply gave its costs as between $2 million and $3 million. The committee was impressed with information given by a large Japanese motor company concerning its change to the metric system. Total cost to the company had been $850,000; the estimated benefit from conversion was $170,000 a year.

The main manufacturers of cars in Australia, branches of General Motors, Ford and Chrysler, informed the committee they were not tied to the policies of their parent companies in the United States and could manufacture vehicles to metric standards in Australia if required. An official of the British Leyland Motor Corp. expected the cost of conversion to be negligible. "There will be no cost or problem as far as design is concerned. It will be a matter of gradually converting as gauges and brochures run out. I would think it will hardly cause a ripple."

The Standards Association of Australia has formed a metric advisory group to assist with changeover problems.

The arguments for conversion to metric in Australia have been similar to those given elsewhere: The metric system is used by countries representing 90 percent of the world's population; three-fourths of world trade is carried out in metric measurements; about 70 percent of Australia's exports go to countries using or converting to the metric system; it is simpler and more efficient. □