standardization of our own forces on U.S. type and, finally, tool up Canadian industry for the production of further equipment of U.S. pattern.

This in itself will do much to co-ordinate our defence production with the United States. We expect, however, that there will be further development of this character all along the line.

## Defence Research

Defence research activity is to be correspondingly increased both to meet the increased needs of the forces and to expedite programmes which had been planned for a longer period.

Like all our defence activities, defence research and development is planned and carried out in close cooperation with our allies, including particularly Britain and the United States. Except in so far as it may be required by actual operations, there is no duplication between the work done in the three countries.

Defence research in Canada gives particular emphasis to anti-submarine equipment, anti-tank weapons, wireless equipment and similar fields in which Canada made a notable contribution during the second world war and in which Canadian scientists and industry have special qualifications.

## Construction

We have already placed orders this year for \$113 million worth of construction.

Next year the figure will be more than twice as much, made necessary both for additional operational buildings and living accommodation for the expanding forces.

Today the accommodation for men living in barracks is full to overflowing at every place where accommodation is needed. For every man joining the forces today, additional construction is required. That means about \$2,000 per man for construction.

## Manpower

Turning to the vital question of manpower, and womanpower too, three years ago there were in the department and services working full time either as service or civilian personnel a total of 54,000. Today that figure is just short of 90,000, an increase of 67 per cent.

To carry through these plans during the next three years the strengths of the three services should be increased to about 115,000 full-time active service personnel and about 33,000 civilians, the civilians being largely employed in work in the dockyards and shops and on construction. This will be an increase of about the same amount, about 67 per cent above present strength.

Because of the large requirements of the R.C.A.F. not only in building up to its total of 40 regular and auxiliary squadrons, but also in the training services, the R.C.A.F. will, we expect, have more men than the army has