


Forest Communications

VHF radio communication system:
All send 75.62 MHz. 

All receive 80.82 MHz. 

The story of communications during the 50 years of the Forests Department's operations in Western Australia is the fascinating story of communications technology which the whole world has seen.

Each decade has been one of remarkable advances.

As early as 1924 a start was made with construction of telephone lines between forest headquarters and the new fire lookout towers then in existence. Heliograph contact was used to keep in touch with working parties and survey teams.

By 1929 a single wire earth-return telephone system had been developed and this, with some refinement, has been extended over the years to approach 2,000 miles in length, connecting some 35 lookout towers and forest centres from Mundaring in the north to Walpole on the south coast.

Until recent years the public telephone system served only forest offices in the major towns. Since 1950 the P.M.G. network has extended throughout the rural areas enabling connection of minor forest offices and a number of lookout towers.

Hansard records that radio as a means of forest communication was first mentioned in 1923 by the Minister for Forests for testing by A.W.A. Tests were also carried out in 1929, but owing to lack of reliable equipment and limitations in technical knowledge, results were not sufficiently encouraging to warrant practical use.

Further trials in 1946, using high frequency army surplus equipment, gave immediate prospects of economical and reliable operations and the following year saw the first units of a wide network installed at fixed stations and in fire trucks.

Divisional control centres worked field operational mobile units on a time schedule geared to the forecasted fire hazard for the day.

The new flexibility given to fire-fighting gangs and field officers by mobile communications made it possible to operate resources of men and materials remote from fixed lines of communications with more efficiency and greater economy.

High frequency (HF) radio suffered, unfortunately, from the serious disadvantage of interference from electrical storms and at times when most needed could be found to be unworkable. This deficiency was highlighted during the Dwellingup fires in 1961 when for the first 48 hours severe electrical storms at a most critical time rendered communication by radio extremely difficult. By this time much of the HF equipment was obsolescent and

Repeater station combined with fire lookout tower (near Nannup)



Mobile



Forest Service radio branch headquarters and workshops are situated in Collier pine plantation, Como

it was clear that the time had come to convert to VHF (very high frequency) equipment which was known to be largely free from electrical interference.

It was fortunate that VHF equipment was available in compact transistorised units and that certain lookout towers were well placed for the siting of repeater stations. VHF communication in the band 75-85 MHz has been in operation throughout the forest areas in recent years. It gives even greater flexibility, as low battery drain means that the receiver may be switched on

permanently to provide immediate contact with vehicles in transit.

Currently a radio-telephone system is under field trial with the probability that it will economically replace earth-return telephone lines, at least in areas where line maintenance is high.

The wheels of electronic progress never stop. The days of integrated circuitry are already with us and soon the officer remote from his home station will be in constant touch per medium of a pocket sized radio transceiver.

Karri Bota

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Towerman sighting fire outbreak and reporting over VHF to base.