design and evaluation of GOLEM I and retains structural simplicity. System
design is guided by the desire to optimize the efficiency of compiled programmes
and of the compilation process itself. Provision will be made for a quick interrupt
to switch to a real time or high priority job and return to the original programme.
To facilitate this feature, as well as to streamline and enhance the reliability of the
peripheral area, it is designed around a fast, high capacity disc file. A brief review
of GOLEM I will be followed by a comparative description of the aims, achieve-
ments, and problem areas in the development of its successor.

Weizmann Institute of Science,
Rehovoth,
Israel.
1965 June.

EEG Computer Techniques Applicable to Geophysical Data
Thelma Estrin

The stochastic character of both electroencephalography (EEG) and seismographic
recordings makes the statistical methods of spectral analysis applicable to these
data. Problems encountered in obtaining spectral estimates with digital computer
techniques are common to time series analysis regardless of the signal producing
mechanisms. For pairs of records the coherence and transfer functions are related
calculations which may yield further insight into the generating processes. Fre-
quency and coherence contours of EEG data, computed and plotted by a digital
computer, will be described.

Additionally a method of time-sharing a large computer in a man-machine
mode will be illustrated by discussing the design of a digital filter using an ‘on-line
programming’ technique. This approach utilizes a special programming console
which includes an input keyboard and output display scope.

Brain Research Institute,
University of California,
Los Angeles.
1965 June.

Weather Modification in the U.S.A.—Recent Developments
Julian Bigelow

During the last few years greatly increased interest within the U.S.A. has been
centred upon problems of Weather Modification, and particularly upon stimula-
ting useful increases in rainfall in drought areas. The speaker has had occasion to
study this effort and presents his own views on the situation as follows.