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WRITING BULLETINS

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First I want to make clear what I am going to talk about. We have several types of publications called bulletins. Very important are those which contain papers, but they are not my subject now. Another group consists of what I would call

Earthquake catalogues

listing origin times, epicenters, depths and may be magnitudes. They are the base for making regional catalogues and seismicity investigations. My main subject will be the bulletins, which we also may call

Station reports.

They can be very simple - just a row of time readings perhaps supplemented with some readings of corresponding amplitudes. However, these bulletins may also contain much more information. For each event several arrivals may be read and identified. Also some source parameters may be given. Very often they are reproduced from the CGS, NOS, or the ERL catalogues. It is an old tradition to produce such Station reports when you run a seismic station or a network of stations. So we have done in Copenhagen for years and I think in a format which has changed only a very few times. When the old stations are improved by introduction of new modern instruments this work can be a very heavy burden. Having a tiresome work one will start wondering if it is necessary to do this work. This is what I would like to discuss.

What are the reasons for publishing bulletins?

- 1) One of the reasons may be to advertise the available seismological records.

Some time ago when I asked one of our colleagues, he answered that the bulletins could act as a catalogue of the records which are available for loan or copying. To this application I should think a log book giving times of successful recordings would be more appropriate. The bulletin may also contain useful information on the location of the station and the description of instruments. There may be other reasons like;

2) The station reports or bulletins may be used for epicenter determinations.

3) The data may also be used in more researchlike tasks as constructing travel time tables, to study magnitude relationships, to produce local station correction terms etc.

What is necessary to fulfill these demands?

We are already reporting to ERL the arrival times of P and pP phases, the amplitudes and periods of the P and furthermore sometimes measurements on the surface waves. Most of this information also goes to the ISC on punched cards. Some years later the ISC will publish that part of the input which can be associated with the NOS-epicenters. In this connection it would be quite natural to propose a bulletin consisting of only that part of the material which is not published by the ISC. The most important missing data may be the period when A/T are given and the measurements of the surface waves, and, of course, the readings of nonassociated events.

Are arrival times of S-waves necessary? If included it gives you an idea of the distance, so you do not mix up a near event with another one far away. According to a discussion in Moscow the summer 1971, the routine readings of direction of motion are useless for focal studies. Consequently we can leave the ups and downs. An obvious inconvenience is the large delay in the production of the ISC bulletin. But it would be possible to circulate copies of the input listings to the ISC.

I should also like to raise the question of phase identification. I have the feeling that sometimes the identification is based only on coincidence or the nearly coincidence of the read phases and expected

arrival times. If that is the case, it is not necessary to print this identification in the bulletin. It can be done by everybody having a travel time table.

Well!

My purpose was to get rid of some work if it is of no use. So please, who are reading bulletins? And what are you looking for?

COMMENTS

Within this concept one could identify the bulletins of international agencies (notably ISC) as the publications which bring together readings from many stations for individual events, which thereby become catalogues or source material for earthquake studies on a world-wide scale. Station bulletins bring together listings of the contents of compact collections of records for a single station or network, and thereby become source material for multi-earthquake studies with a common body of instrumentation. Evidently the work of stations can be greatly reduced if any given entry appears once in each set of publications so that the reading needs to be made only once.

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