

International Mathematical Competition in Luxembourg,  
July 1980

Report by D. Monk

1. Academic arrangements

Pupils from six countries participated - Belgium, France, Great Britain, Luxembourg, the Netherlands and Yugoslavia. Those from France, however, were not "officially" part of the competition; they were described as "observateurs du Lycée Montaigne de Mulhouse".

The two four-hour sessions of the competition took place in the mornings of Thursday and Friday, 10th and 11th July, at the Lycée technique (Centre de formation rurale), Mersch. The Jury, which was based in the city of Luxembourg, met first on the evening of Tuesday, 8th July and completed its preliminary work on the following day. This task was greatly eased by the proposed problems having been previously circulated by post to the leaders. (Unfortunately it seems unlikely that this would be acceptable at a full-scale IMO, though a serious difficulty there is that the leaders have very little time to assess the problems.) I acted as chairman of the Jury. There were no independent coordinators for the marking, the coordination of each problem generally being carried out by the country which had proposed it, with special arrangements for their own scripts. However, for reasons of time-tableing, we coordinated one of the Dutch problems (No. 6) and they coordinated ours (No. 1). Members of the Jury also acted as invigilators.

The final session of the Jury to determine the prize list was held in the evening of Saturday, 12th July. One first, seven second and eleven third prizes were awarded; there were no special prizes. At the closing session, which took place at Mersch on Sunday morning, 13th July, the prizes and prize certificates were presented by the Luxembourg Minister of Education. In addition all contestants received, via the leaders, certificates of attendance.

Graham Howlett and I found ourselves in close agreement in the work of marking the British scripts and of coordinating. The British team gained three second and four third prizes. This result was a little disappointing on two counts - that we did not win a first prize and that one team member did not get a prize. Richard Taylor achieved, with 35, the second highest total mark in the competition; he was pulled down badly in one problem by a relatively simple error. I do not, though, quarrel with the decision to give only one first prize. A score of 35 would not usually gain a first prize in IMO. At the other end of the list, Bernard Leak was clearly upset at not getting a prize. But such a situation has arisen in almost every year with our IMO team. Generally I think that our performance can be regarded as very satisfactory. Our total of 208 was the highest national score but too much significance should not be attached to this as Yugoslavia, with 202, had only seven competitors.

The fact that almost all the leaders and deputies had IMO experience ensured that the academic arrangements worked smoothly.

## 2. Travel and accommodation

Travel was by train and boat via Dover (out)/Folkestone (in), Ostend and Brussels. Graham and the team left London (Victoria) at 22.00 on Tuesday, 8th July, arriving in Luxembourg the following morning. I had travelled outward 24 hours earlier. The whole party returned together, leaving Luxembourg at 19.31 on Sunday, 13th July and reaching London at breakfast time on the 14th. No difficulties were encountered, a doubt about the party reservation for the Brussels-Ostend stage of the return journey proving to be unimportant. I found Graham exceedingly helpful on the return journey, as in the academic aspects of the work.

The Jury was accommodated at the Internat Don Bosco, Luxembourg city, which provided bed and breakfast only. Other meals, apart from some lunches at Mersch and dinner on Friday (see §3) were taken in local restaurants. Travel between the Internat and Mersch was by private cars of jury members and local helpers.

The team stayed in the boarding accommodation of the Mersch Lycée, four to a room. This appeared to be comfortable and the meals (judging from those taken by the Jury) were excellent. Their travel between Luxembourg city and Mersch was by local train. Once the problem was explained the catering staff at Mersch cooperated by providing medically necessary snacks for one boy who suffered from diabetes, and this did not cause any difficulty.

Generally all accommodation was very satisfactory and seemed to me reasonably cheap by continental standards.

## 3. Social activities

There were two outings for both teams and seniors. In the evening of 11th July there was a visit to the European Community's tower building and Bâtiment Jean Monnet. At the latter a lecture and slide-show (in French) on the work of the various European institutions was followed by a very pleasant reception and dinner given by the Community. On the afternoon of the following day there was a sight-seeing trip by coach with stops at Vianden and Echternach. Finally drinks were served after the prize-giving ceremony.

I had the impression that little or nothing was arranged in the way of leisure activities for the teams at Mersch (which is only a small town). However table tennis seemed to be a popular pastime and maybe other games were available; I heard no complaints on this point. No interpreters or "chaperons" were provided but no difficulties arose.

4. Generally I think that everyone enjoyed themselves - I certainly did - and the venture can be regarded as a success. In particular the more relaxed approach to the mathematical side - as opposed to the slightly obsessive security worries of IMO proper - was congenial. But the rather informal arrangements would not have been adequate for a larger, or less experienced, gathering.

Mention must be made of various people in Luxembourg who organized or contributed to the event. M. Lucien Kieffer was the principal organizer, assisted by M. Pierre Schabo; warmest thanks are due to both. Father R. Lehnen, the Superior of Don Bosco, and M. Victor Adehm, Principal of the Mersch Lycée, were most helpful. Representatives of the Luxembourg Ministry of Education, the Municipality of Mersch, and the European Community were also involved in various ways.