

T. D. BARRITT

BOBWELTMEISTERSCHAFTEN 63

Televising the 1963 World Bob Sled Championships

GOOD COVERAGE OF SPORT on television quite often calls for a considerable quantity of equipment and complicated organization. Bob sled racing is perhaps one sport which calls for more than usually complicated arrangements. Taking place as it does in the depths of winter and on the slopes of a

mountain it presents as many difficulties as can be found in any broadcast.

During 1962, InterTel AG agreed to organize the television facilities for the American Broadcasting Corporation to cover the 1963 World Bob Sled Championships at Innsbruck, Austria. All the events were

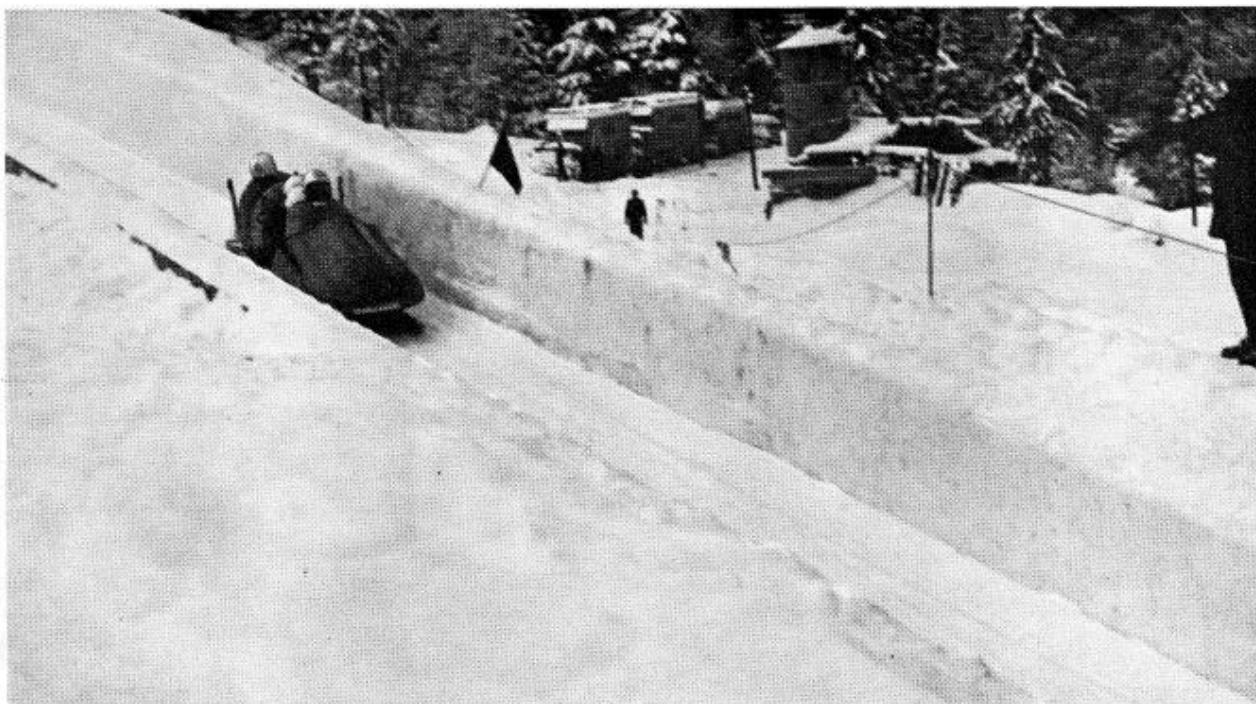


Fig. 1. A four-man bob sled passing one of the camera positions.

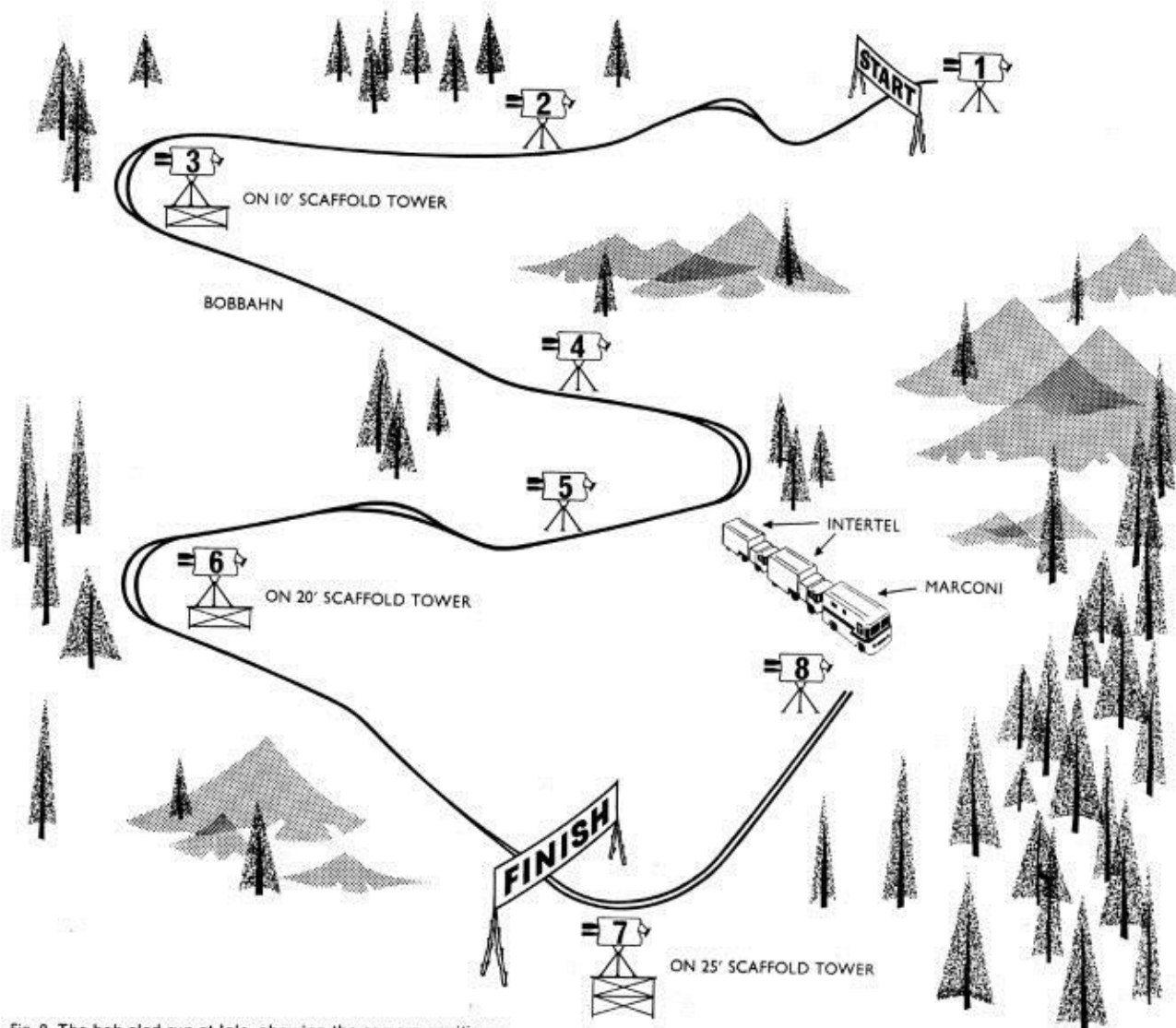


Fig. 2. The bob sled run at Igls, showing the camera positions.

to be recorded on Videotape* and then despatched to New York by jet aircraft for transmission on the ABC network. The severe winter of 1963 produced difficult conditions for all forms of outside activity, and television outside broadcasts involved operating equipment in extreme conditions and provided unique experience for all concerned.

To obtain adequate television coverage of bob sledding it is necessary to position a camera at practically every bend in the bobway. The sled travels the length of the bobway in a deep ice-walled trough and, when negotiating bends, normally takes a position travelling at a maximum height on one wall of the trough. The

trough depth precludes viewing a complete run from any one position, and in fact, the only way to observe a complete run instantaneously is through good television coverage. The new Olympic bobway at Igls (Fig. 2) is one of the best planned and well thought out in the world. After Lake Placid, it may well be the fastest, because the first third of the run has an 11% drop. Speeds achieved after the first big bend are between 100 and 110 km/h, and the three big bends and two S bends give competitors little time to collect their thoughts.

Particularly difficult points on the course are Bend 5, called the Bump, which is not so much a bend as a steep gradient which is liable to cause side slipping; and Bends 10 and 11, called the Eye of a Needle,

* Trademark—Ampex Corporation.

where the run narrows. The total length of the run is 1506.35 m and the total drop 138 m.

InterTel's Chief Engineer, Roy Robbins, decided to supplement their normal Mark IV camera facilities¹ by hiring an additional unit, thereby making it possible to use eight Mark IV camera channels to cover the events. These cameras were mounted at the most advantageous points along the course (Fig. 2) enabling the complete run to be covered. 10,000 ft (3050 m) of camera cable and 12,000 ft (3657 m) of other cables were required to connect all the equipment together.

Though the bobway is situated on magnificent mountain slopes near Igls and is a perfect setting for winter sports, it is not in the least conducive to television outside broadcasting. To get the television control vehicles to the required position, it was necessary to borrow a motor-driven winch from the Austrian Army so that the vehicles could be hauled up the snow-covered mountain side. This operation took 10 hours to complete; the arduous task of installing the camera equipment at the chosen points was then begun.

The distance between the control vehicles and cameras varied between 100–1,700 ft (30–518 m) and considerable physical effort was expended when moving the cameras and cables to the higher positions. In places, the snow drifts covered voids in the ground, and one could occasionally see a colleague disappear downwards, frantically clutching a camera cable. Most equipment was in position by the evening of the 25th January, and the events were due to start at 9 o'clock the following morning. Communications, sound and vision checks were completed, and, despite the difficulties encountered in rigging the equipment, the only defect was a faulty screen on a camera cable section. The cameras were left for the night on site, about 4,000 ft (1200 m) high at a temperature of -26°C .

Power was provided by diesel generators, and in the extreme cold they proved stubborn at starting in the morning. However, it was soon found that a few drops of ether placed in the airtake overcame this difficulty.

The problem of correct operating temperature for



Fig. 3. The InterTel and Marconi Vehicles in position.



Fig. 4. Winching one of the OB vehicles up a snow-covered slope.

cameras in extreme cold had been met before, and additional heaters for camera yokes were available.² These were put into circuit and the warm-up period (-26°C to 40°C) was achieved in about an hour.

Camera control and ancillary equipment were housed in the normal vehicle positions, but all camera outputs were fed directly into the switching facilities available in the InterTel vehicle, where the programme staff selected the required picture. Communication units were modified so that the Programme Director had direct talkback to the eight camera operators and also between the two vehicles.

The championships were divided into two sections to be completed over two week-ends. Each sled was to make individual runs and the winner judged by the best times. Two-men sleds started the competition and soon produced some startling and exciting pictures. Spills were frequent and competitors sometimes parted company with the sled half-way down the bob-way; pictures of this happening could be quite frightening, but happily there were no serious accidents.



Fig. 5. Building up the bob-way walls. Camera scaffolding can be seen at the right.

When the four-men sleds took part on the following week-end, the effect at first was terrifying. They appeared like monsters thundering down to their doom and expressions on the faces of some competitors seemed to confirm this fate.

The television coverage was a complete success and in addition to ABC, the BBC used some of the material for their *Sportsview* programme.

The Mark IV cameras were exposed to the elements for a continuous period of 9 days and, apart from the initial fault concerning a section of the camera cable and the longer warm-up period, all equipment performed entirely satisfactorily. Since it was not desirable to operate the power equipment overnight, all ancillary equipment had to be raised from the sub-zero temperatures each morning. It was not possible to use butane gas heaters because the moisture given

off when burning gas affected the electrical performance of the equipment. Electrical storage heaters would probably provide the best means of keeping equipment warm under these conditions, but the sheer bulk of this type of heater would be a major objection for mobile use.

The ninth Winter Olympic Games will take place in and around Innsbruck during January and February 1964. To cover some of the ski racing and all of the bob sled events, Marconi's Demonstration Unit will be supplying a new design of O.B Vehicle which will accommodate nine camera channels in one vehicle.

REFERENCES

- 1 P. A. T. TURRALL and R. ROBBINS: New Mobile Television Four-Camera and Video Tape Recording Vehicles; *Sound and Vision broadcasting*, Vol. 3, No. 3, Winter 1962.
- 2 A. D. PARKINSON and D. PAY: Four Years of the Mark IV. Accompanying article in this issue.