

nature

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Aftermath of the Mark VA

THE tale of the Jodrell Bank Mark VA radiotelescope that was never built is a gloomy one from any point of view. The Fifth Report from the Commons Committee of Public Accounts (HMSO; £3.45) takes a look at it.

Original plans were for the Science Research Council (SRC) to construct a 400-foot steerable dish (the Mark V); the council sought approval from the Department of Education and Science (DES) in 1970 on the basis of an estimate of £6.2 million (January 1970). A revision of the cost to £8 million caused the SRC to propose a smaller telescope—the Mark VA, with a 375-foot aperture, which they hoped could be built within the £6.2 million figure. A detailed design was to be prepared by the consulting engineers Husband and Company (a firm well experienced in radiotelescopes), covering drawings, bills of quantities and an invitation to tender for construction. The United Kingdom Atomic Energy Authority (UKAEA) would act as project managers, and it was estimated that £245,000 would be needed in consultants' fees. A large fraction of this figure was tied to the final tender price for construction.

Treasury approval for the design stage was given in June 1971. Ten months later the consultants were given the go-ahead to complete the design, if possible, within twelve months. They were told to alert the UKAEA if it seemed that the construction would cost more than was originally planned (due allowance had been made for inflation). Within six months they reported that the limit had been reached. After that, however, they were under no obligation to report costs further, and indeed had declined to have any further reporting written into their contract. The SRC's explanation for this was that "the consulting engineer . . . was designing the telescope to make it as cheap to build as he could. He was still finding out how it could be built cheaply, and it was more important for him to do that than to keep estimating what the cost was".

The inevitable happened. In October 1973 the consultants finished; tenders received in March 1974, reflecting the great uncertainties then prevailing in the construction industry, were around the £14 million mark. The total cost was put at £16 to £17 million. (It had been estimated just before by the UKAEA that the £6.2 million—at 1970 prices—which was the original total cost would have inflated to £10.7 million by January 1974.) Faced with a 50% growth in real terms in costs, and having to live with negligible overall growth, the SRC abandoned the telescope in June 1974, having

learnt that total costs had risen even more in the interim to £22 million.

But this left one matter outstanding—the consultants' fee. As it was related to the tender price, it now amounted to the sum of almost £600,000, although on this the consultants eventually offered a rebate of £30,000. Even so, the amount they received was rather more than double what they must have expected on starting—a tidy windfall even when inflation had taken its toll. The SRC, which had not been informed itself of price escalation, had in its turn not been able in 1973 to keep the DES and the Treasury alerted to rising real costs, and had to seek special Treasury authority for the total design bill of £660,000.

It is fairly easy now to look back and see what went wrong. People were unused to dealing with inflationary conditions, and so didn't exercise such stringent controls as they would now. Even so, the telescope might have come through unscathed were it not for the situation which developed nationally during precisely the months that potential contractors were preparing their tenders. As it is the SRC gets a mild rap over the knuckles for letting matters drift, and rightly so, although the report has a rather optimistic view of the willingness of the scientific community to drop major projects when costs escalate. But what about the method by which the consultants were paid?

It must be made clear that the issue here is in no sense one of indulging in any gold-plating. The figures mentioned and the evidence of the SRC and the DES all fit in with the appalling way in which construction costs escalated. Be that as it may, the taxpayer ended up paying the consultants an "uncovenanted benefit", in the words of the committee, totally unrelated to the cost of the project. What is more, the SRC, having decided not to go ahead, would have to pay an additional fee if it chose to think again, as the plans are the copyright of the consultants. The SRC did at the very outset enquire about retaining the drawings, but was told that this would roughly double the fees.

All of this is legal and common practice. Fees are related to tender price, and copyright stays with the designer. But it does seem to the outsider to be open to charges of being inequitable, and it can lead to cynicism. The Public Accounts Committee calls for further consideration to be given to the way consultancy agreements work in the public sector. We hope someone is doing just that. □