

CORRESPONDENCE

Johannesburg Observatory

SIR,—It may surprise you to learn that your editorial "Good Cheer for Astronomers" (*Nature*, 228, 316; 1970) has been read with very mixed feelings not only in South Africa but also abroad. Indeed, one foreign astronomer felt strongly enough to airmail us, on his own initiative, an advance copy on which he had deleted the word "Good" and substituted "Bad".

On the face of it there should be nothing but praise for the agreement between the Science Research Council and the South African Council for Scientific and Industrial Research "to merge the facilities at the Royal Observatory at the Cape and at the Republic Observatory in Johannesburg into a single station situated near Sutherland some 250 miles north-west of Cape Town" (*Nature*, 228, 5; 1970). Certainly, nobody would criticize the decision to embark on a policy of vigorous development of astronomy in South Africa, and nobody would begrudge the Cape Observatory a new lease of life if that should be one result of the decision. However, there are several less happy aspects of the agreement that have given rise to considerable adverse criticism, and even resentment, in local circles.

Among the criticisms that have been voiced are the failure of the CSIR (who have no astronomers in their executive) to consult representative astronomical opinion in this country, and the choice of Sutherland as the site of the out-station, however convenient it may be for the immediate needs of the Cape Observatory.

But the main criticism is the decision to close the Republic Observatory, founded in 1903 and the national observatory for 60 years. It was a government institution until 1964 when it was transferred to the CSIR. As a national observatory it has hitherto concerned itself mostly (but by no means wholly) with the long-term astrometric programmes characteristic of such institutions—if they do not shoulder the burden, who will? Its main activities have been in the fields of visual double stars (observational and theoretical) and minor planets and comets. We do not think that we shall be accused of vain boasting

if we say that in these activities the Republic Observatory with two or three other observatories has led the world and can well continue to do so.

It is somewhat misleading to say that "the Republic Observatory in Johannesburg has also fallen a victim to city light". The 26.5 inch refractor, with which the observatory built up its reputation in double-star observation, is little, if at all, affected by sky illumination or smog and the time-tested "seeing" remains as good as ever. There is no reason why it should not be usefully employed in this work, at its present site, for many years to come. There is as little reason to move it to a new and relatively untested site as there would be in the case of the refractors similarly employed at Meudon (only 7 km from the Eiffel Tower), Nice, or Washington, DC. For those programmes that really are affected by deterioration of the night-sky the observatory has an annexe in pleasant surroundings at Hartbeespoort, a mere 50 miles from Johannesburg. Here the sky is adequately dark for all but the most exacting astrophysical requirements, as evidenced by the sophisticated photoelectric photometry carried out by the Leiden Observatory Southern Station on the same site.

Yet the Republic Observatory is to be broken up as a corollary, apparently regarded as axiomatic, of the SRC-CSIR agreement (there is no question of commuting between Johannesburg and Sutherland as suggested in your editorial, for the intention is definitely to close the observatory). We are told that one (or two?) telescopes and, we imagine, some smaller items will be salvaged for the new observatory, and such members of the staff as have not resigned will be transferred to Cape Town. The rest of the equipment together with the accumulated experience and tradition will be dispersed. The Witwatersrand, the most densely populated area of the republic, with five universities in its environs, will lose an important civic and educational amenity. To break up an active institution whose days are certainly not numbered for the little that the new institution can salvage from it seems both senseless and wasteful.

Even if the observatory were moved *en bloc* to Sutherland it would remain more than doubtful whether its largely

astrometric programmes could be continued there as successfully as in Johannesburg and Hartbeespoort. The "seeing" is known to be good in Johannesburg but we have little evidence that this is the case at Sutherland. The minor planet work would be seriously affected by transfer from the clear winter skies of the high veld, of that there is no doubt, for it is in winter when the ecliptic is south of the equator at night that the programme reaches its peak. Furthermore, double-star work in particular is of an intensive, long-term and personal nature, and the parties to the agreement themselves admit that Sutherland is not a suitable site for permanent residence of the observers and their families. In fact, the decision to concentrate South Africa's contribution to astronomy to any one site, whether at Sutherland or elsewhere, flouts a principle that is being increasingly stressed: that it is wholly unrealistic to look for a "polyvalent" site ideal for every kind of astronomical activity.

The CSIR seem to be very reluctant to reconsider their decision to close the Republic Observatory, perhaps because they feel that this would be a repudiation, in some degree, of their agreement with the SRC. It would therefore be a gracious gesture, and one that would earn much goodwill in this country, if the SRC took the initiative and indicated their unwillingness to profit from the "cannibalizing" of an observatory that is perfectly viable and by no means ready for the scrap heap.

Yours faithfully,

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