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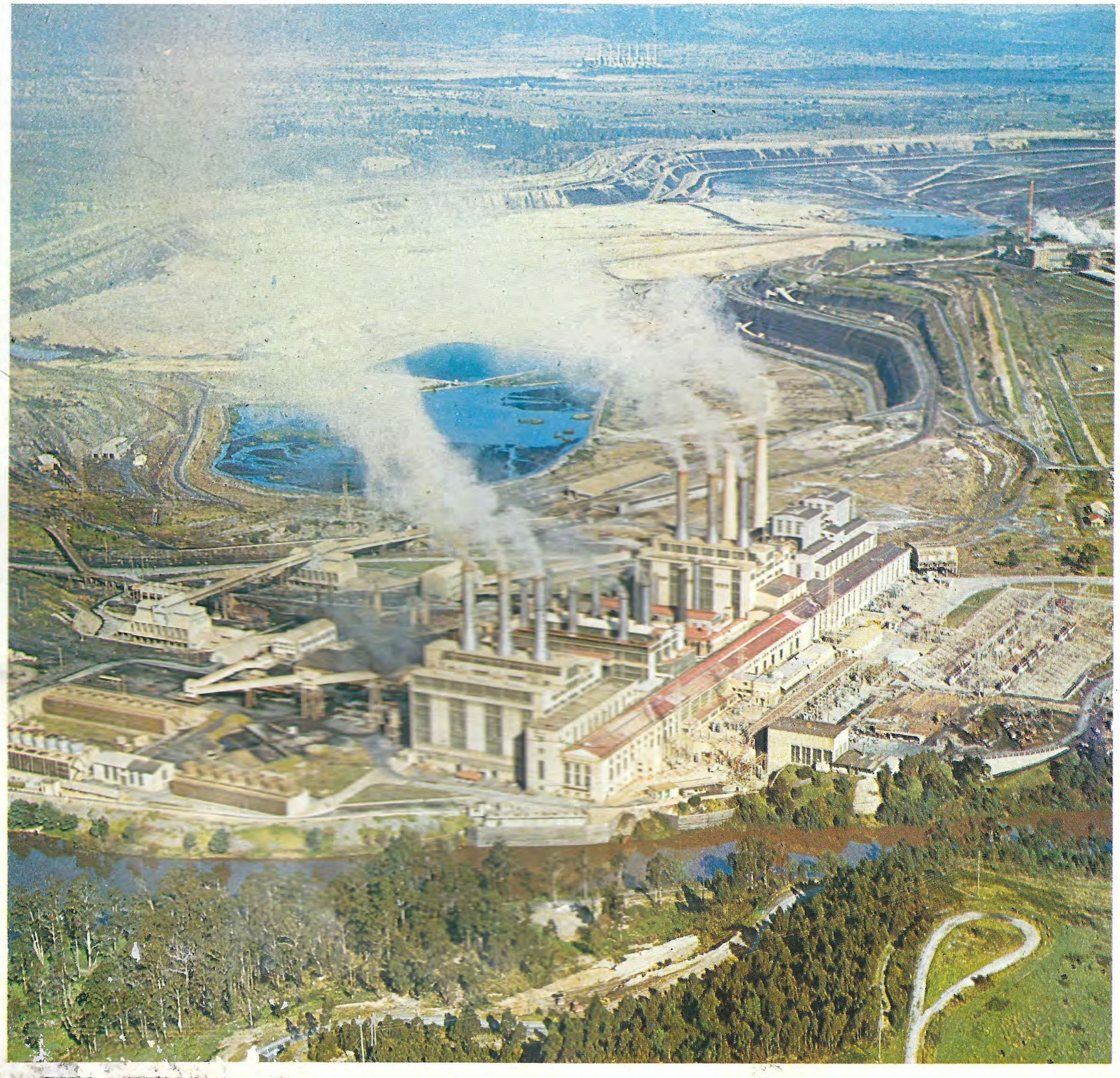

Into the desert. . .

by Tom Sheppard

THE core of any successful expedition, and journeys into the desert must be considered to be expeditions, is sound planning and training. In desert travel the consequences of failure are serious, serious not only for the travellers themselves but for the weary and unimpressed authorities who have to sort out any ensuing mess. Planning for desert travel should start six months ahead of departure date; it is unlikely that any but the most straightforward trip will get off the ground in less than three months. Embassies need time to ponder and approve, applications have to be referred back to capitals, and alas, anything unusual in these troubled times is treated with suspicion. Brace for frustration, bureaucracy and non-cooperation on all sides.

Logistics of the expedition

Next, look at distances between supply points on your proposed routes, consider weights, number of personnel and logistics, and this will give an idea of what type and how many vehicles to use. All African desert areas are covered by Michelin Maps (sheets 153 and 154) to a scale of 1: 4,000,000 and these are the very best there are for the purpose. Latest logistic information and track conditions are marked on them. Check with oil companies or United Kingdom consulates in the countries concerned for details and prices of the fuel supply. Petrol prices rise steeply as you go further into the desert.

Availability of fuel and supplies will dictate the ratio of people to petrol in each vehicle. Regard the vehicle manufacturer's top cross-country payload figure as sacrosanct – to exceed it is to invite disaster. Top figures of 800 lb., 1800 lb. and 2800 lb. are given for the Short Wheelbase, Long Wheelbase and Forward Control Land Rovers respectively; station wagons will carry less. Average desert tracks planning-m.p.g. are 15, 13 and 11 respectively for these vehicles; add or subtract about 4 m.p.g. for good or bad going. Carry fuel for the proposed distance plus 25 per cent, then include fuel for an additional 100 miles. It is essential to keep a daily check on fuel consumed and m.p.g. For long range expeditions, after food, spares, kit and water – at two gallons per head per day – are accounted for, barely two-thirds of the payload can be allocated to fuel. In containers and lashed, fuel weighs about 10 lb. per gallon.

The ideal crew is two per Land Rover, three is the absolute limit, unless you can afford the short-range low payload of a station wagon as a personnel carrier. Food, which must be largely tinned, will weigh something under 50 lb. per man for fifteen days. On a three vehicle sortie, allow 50 lb. for spares, 25 lb. for tools and 50 lb. per vehicle for recovery equipment such as shovels, ropes and sand ladders. Personal kit at 40 lb. per head, all inclusive, is reasonable. The weight of scientific equipment or collections must be calculated and, as with everything else, be reduced to the minimum.

Choice of vehicle will in many instances be influenced by a host of factors – available funds being not the least consideration. However, principles and purpose should not be ignored. In general, the longer the range of a journey the larger the vehicle required, as consumption of percentage payload per mile is less on large trucks. The Bedford RL, depending on fuel carried, can maintain itself and other vehicles over four or five times the distance that a Short Land Rover can manage. Against this, however, small vehicles have a higher power to weight ratio and, suitably shod, will get through to places which would be impossible for a heavier vehicle. The third important factor influencing choice is the minimum overall number of vehicles to take on an expedition venturing into unfrequented country. Three vehicles is safest since failure of one can be accommodated by the other two, through towing or partial off-loading, without hazarding them. With only two vehicles this is less easily done. Even on reasonably frequented tracks it is best to take two

vehicles, driven in convoy, always in sight of each other.

Tyres are of the utmost importance. Never use cross-country, mud-plugging 'nobblies' in the desert; they will wear badly and be disastrous in soft sand. The 'sand tyre', circumferentially ribbed and requiring in most cases a special 15 inch wheel on Land Rovers, is useful only in soft sand. By far the best is the radial ply 7·50 × 16 Michelin XS desert tyre which, with due regard for the thin sidewalls, is virtually puncture proof and gives sand traction and flotation superior to 'sand tyres' of 8·20 width. A radial tyre also keeps a constant circumference – an important factor when accurate distance measurement is required at differing tyre pressures.

If it can be allowed to influence choice of vehicle, weight distribution is worth considering. An equal distribution at front and rear is ideal on a four wheel drive machine and this is only achieved by a Forward Control Land Rover, a Bedford RL or a Mercedes Unimog 'S'. Vehicles with a high under-belly and axle clearance are necessary where rocky wadis are to be traversed.

The success of any project will vary with the party's ability to absorb error and failure. In an unforgiving environment such as the desert, or in space, this ability to absorb error is inevitably low. Even slight failures of man or machine will cost dear. The effort put in, therefore, must be enough to ensure that mechanical errors are reduced to an absolute minimum, and this includes the condition of the vehicle as well as impeccable standards of maintenance and driving. Nothing less than the best will do, for the vehicle is the life blood of the expedition. Only the most lavish

Regular vehicle inspection is essential after driving along punishing tracks

parties can afford the loss of a vehicle due to bad driving. Springs only break if the vehicle is overloaded or driven too fast over bad ground. Half-shafts in a Land Rover break through use of the hand brake when moving, by use of two wheel drive instead of four, or by brutish clutch work. All drivers must be imbued with 'mechanical sympathy'. Preferably, the mechanics and drivers will be the same people; they must cherish their machinery and inspect it minutely each evening – at a time when probably they will feel more like taking a rest. This attention and a 'smoothness' in driving will keep a vehicle going. On Land Rovers you must double de-clutch from 1st to 2nd, from 3rd to 2nd and from 2nd to 1st. Never engage low box four wheel drive on the move, though with double de-clutching and moving from 4th low to 2nd high, the reverse can be usefully achieved. Acquaintances will claim all kinds of feats over a drink but will seldom admit to the disastrous metallic clunk that accompanied them. A sensitive right foot, light on the accelerator, will let you know when wheel spin is about to occur and you must learn to lift off before it does. Admit defeat early in bogging situations: those extra few seconds of wheel spinning lead to four or five times as many minutes of digging when the vehicle bogs to the chassis. There is no substitute for sensitivity and intelligence where desert driving is concerned. With a trained, careful driver Land Rovers will go through preposterous situations without strain.

Navigation demands a similar meticulous approach. The great danger is to leap precipitately to a conclusion, taking into account only the evidence that suits and failing effectively to account for every fact. Go east two miles, south two miles, west two miles and you will be two miles south of you original position; this is the method of Dead Reckoning (DR) navigation at its simplest. It should always be used. A log must be kept in desert situations.

Getting on the right track

Maps can be unreliable and often lack sufficient detail so that unmarked turn-offs from tracks are not easily seen or distinguished. To help you find them, decide when you have missed them, or to sort out a situation where you have taken a wrong one, keep a DR log listing the mileometer reading, the compass heading and a note on the event, such as a fork in a track, a prominent hill, or a well. Then, if you do become uncertain of your position, you can back plot on the map or on graph paper to find out your position relative to your last fix. Remember that in many areas desert routes are a collection of tracks spread over a mile or so of indistinguishable country, and it is easy to miss a vital turn-off marked, if at all, by a stick in the ground. Magnetic compasses are notoriously unreliable in a vehicle and may register up to 15° off true. To take accurate bearings you must go at least thirty yards behind the vehicle to be out of its magnetic field. A sun compass is the solution for cross-country work and is, when properly set, accurate to within a degree. Again, for best results your position should be cross-checked at night with theodolite astro shots.

Thought should be given to taking flares, verey cartridges and heliographs for rescue purposes. A radio is ideal if the expeditionary is a 'ham' or can fight through the regulations governing their use. Medically, the desert is a healthy place. Drink lots and often, as thirst is an unreliable indicator of water balance. For driving and camp activities in a temperature of 90° to 100°F. about 1½ gallons per head per day should be drunk. Any exertion, such as digging, or locally higher temperatures, such as the cab of a Bedford RL, will increase this amount drastically. At 100° to 104°F., three miles on foot without water over sand dunes will bring you to a state of collapse. If you must walk, only do so when it is cool; carry lots of water. Severe sunburn will occur unless more than ordinary care is taken; medical supplies should include lip-salve, skin cream, and Furoxone to prevent and cure stomach upsets.

If all this training and precaution makes the desert sound more trouble than you feel it is worth, do not go. You cannot fool with the desert, but if you take what amounts to little more than common sense steps to come to terms with it, you will find yourself rewarded a hundredfold. For nowhere is so still, so clean, so awesome, so varied, so harsh, so beautiful or so captivating.

To Annapurna and back

'Two period returns to Annapurna,' the man in front of me at the booking office said.

'Yes, sir, via Geneva and Kuwait or via Moscow?'

Well, it is not quite as simple as that but it really is not very much more difficult. It is perfectly possible to obtain a ticket to Katmandu, via Moscow and New Delhi, and a place on an expedition which will ascend to at least 4400 metres on Annapurna and may even go to a height of 5300 metres, all from your nearest branch of Thos. Cook and Son.

Cooks literally broke new ground last year when they took a party of tourists to Everest. This year they are following up that success with a trek to Annapurna led by Eric Shipton, pioneer member of Everest expeditions since 1931. The trek to Annapurna will not be for the holiday-maker looking for soft living and creature comforts. The party will set out from Pokhara and food may be varied. A warning note advises, 'As it is not possible to carry much meat on the journey, to some extent the expedition will live on whatever livestock is available, and this will include chickens, goats and, of course, yak meat.' Yak sandwiches are clearly essential ingredients of any well set-up Himalayan tour.

All members of the party will climb to the Dhaulagiri ice fall but from that point onwards it becomes a question of sorting out the men from boys, or vice-versa. 'Those fit and wanting to go higher will go on to a view point of 4400 metres.' There is a possibility of an additional climb to a point known as White Peak 900 metres higher but this is not guaranteed since this climb will involve the use of ropes and picks and good weather conditions are essential.

In all the party will spend twenty-one days on the mountain but the tour also allows time for sightseeing in Katmandu, Agra and Delhi.

Setting up tours of this nature is becoming increasingly competitive – certainly from the standpoint of ideas of where to go next. In the year 2000 it is unlikely that the tourist will be satisfied with a climb that ends halfway up a mountain. By then, it will be the summit of Everest or nothing.

Close-up on India's wild life

SIX of India's wild life sanctuaries are included on the itinerary of a tour which will leave London in February of next year. For a basic cost of less than £500 it will be possible to visit the Gir Forest, Nal Sarovar, the Kanha National Park, the Jai Samand Sanctuary near Udaipur city, the Keola deo Ghana Bird Sanctuary at Bharatpur, Tiger Tops Hotel in Nepal and the Kaziranga Sanctuary in Assam.

On pages 804–812 of this number of THE GEOGRAPHICAL MAGAZINE Lt-General Sir Geoffrey Evans describes four of India's national parks and outlines the general policy of the Indian Government in respect of conservation.

Visiting the outback

TOURS of the Australian outback have been set up by a Melbourne company. Participants travel in their own vehicles accompanied by a shepherding vehicle carrying a mechanic, assorted spare parts and towing gear. Safaris last for twenty-two days and visit Ayers rock, Victory Downs homestead, Coober Pedy and Kingoonya.

School for mountaineers

INSTRUCTION in rock and ice climbing is being provided until the late Autumn at the Mountaineering School Bernina-Bergell at Pontresina in Switzerland. Walks of differing severity are organized together with high alpine tours which include climbing.

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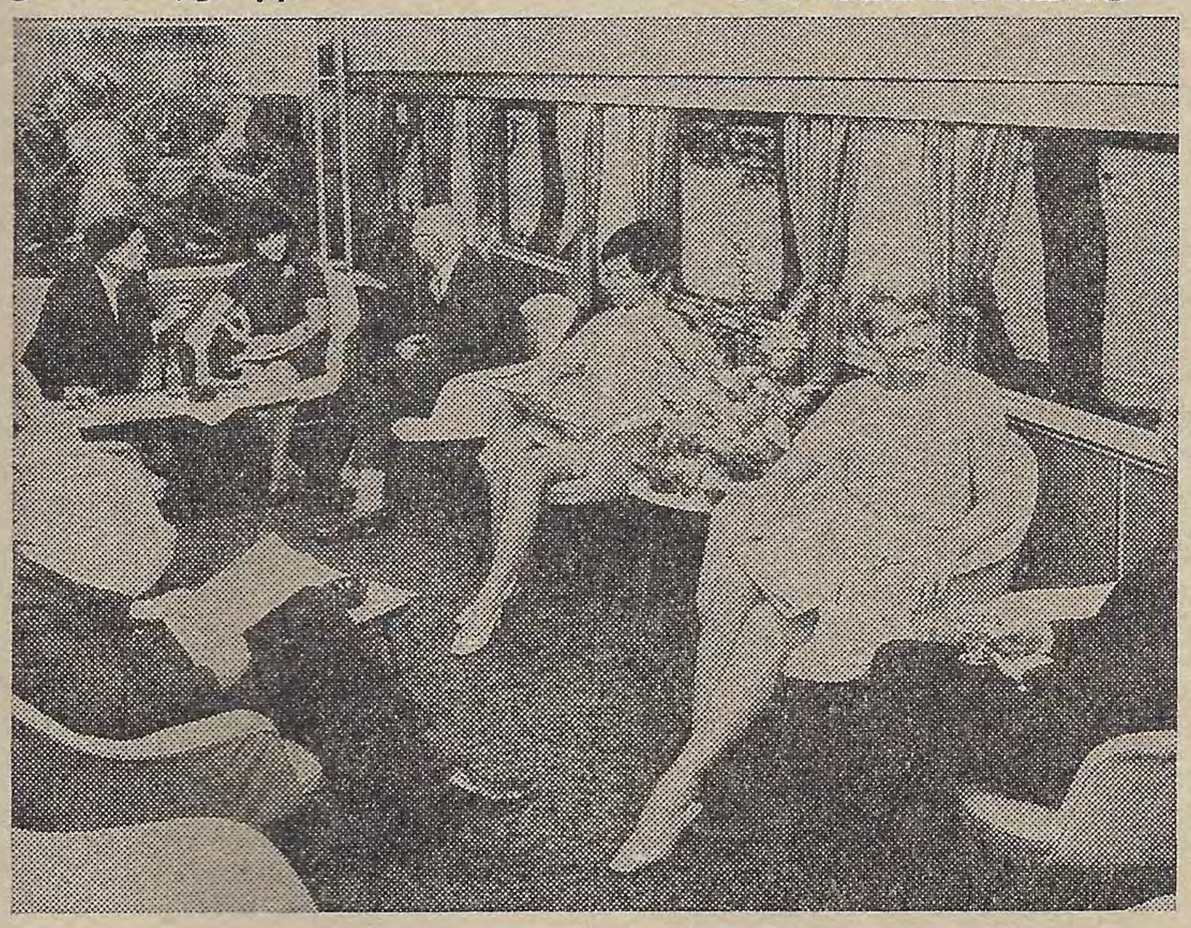

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