

Geese. They estimated that we had hit 50 to 60, from wingtip to wingtip at about 150 feet (45 m) in the air on takeoff. The aircraft wing-span is 222 feet (almost 68 m). The left landing light was knocked off. No. 2 engine was overheated, No. 4 engine fan section had exploded, severing hydraulic lines, and Nos 1 and 3 engines sustained much damage of other kinds. There was also control surface damage and damage to leading-edge slats. There was damage to undercarriage doors and to undercarriage linkage; however, those components still worked normally. The high 'T' tail had escaped damage, so all strikes were at approximately the same level. The successful outcome of this near-disaster is attributed to excellent crew training provided by the military authorities and to outstanding crew discipline.'

In finishing his presentation, Col. Oates again stressed that the success of the flight was realized through a total crew effort, as he said: 'No one person could have brought the aeroplane through'.

After the experience of the above-described incident and several less serious ones, the decision was made to use two air traffic controllers at a time at the Base—one to control aircraft movements, and the other to watch for birds on radar and provide bird information to the aircraft controller.

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### Coral Reef Destruction in Ryukyu Islands

The northernmost well-developed coral reefs along the western edges of the Pacific Ocean are in the Ryukyu Islands, south of Japan—particularly in the Yaeyama Group, centred around Ishigaki Island. In 1956, when I spent three months in the Yaeyama Islands, these reefs were in relatively flourishing condition, considering that they are at the northern limits of coral-reef distribution.

At that time Ishigaki Island, though somewhat overpopulated, was ecologically in a relatively stable condition. Active, large-scale disturbance using modern machinery had scarcely begun. Shortly after that time the Ryukyu Group was turned back to Japan, after ten years of American Military Government. Since then, until recently, we have had few reports on environmental matters.

Now, however, there is a proposal from the Prefectural Government to construct a major airport at the city of Shiraho, Ishigaki Island. This would be partly on land and would extend well out onto the coral reef, causing untold destruction, both by physical dredging of reef limestone for fill, and by sedimentation from the dredging and from terrestrial mud from the bulldozing which would be needed for the landward part of the airport. Siltation by suspended solid matter is fatal to living corals.

The residents of Shiraho are organizing an attempt to halt this project, but the proposal has been forwarded to the Japanese Government Ministry of Transportation, the Ministry of Construction, and the Environment Agency. A decision is expected in December. Construction will, it is

said, take about ten years. Outside observers are not very optimistic, but the opposition will do what it can to prevent this major disruption of the quiet life of the Ishigakians and the accompanying environmental perturbation.

Even without the airport, extensive bulldozing and land disturbance for other purposes are having a profoundly deleterious effect on the health of these coral reefs. An observer with past experience of these reefs writes 'I dived all around the Yaeyamas; I quit after 10 days. Everywhere the water is increasingly murky, from all the "land improvement" for agriculture, and all the newly-enlarged ports. It is noisy diving near shore, because of all the bulldozers. The +'s on my map, from the last four years (+ indicating 50% or more living coral) have become zeros. Terrible! Even if the airport isn't built at Shiraho, I have the grim feeling that all the terrestrial activity nearby will eventually do it [the reef] in... It is hard to believe until you actually SEE it...' (The name of my informant is withheld to avoid reprisals and punishment.)

Pressure from foreign and international environmental groups could make a difference.

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### Supercities on the Rise

Population growth and migration have 'horrendous implications' for the future of Africa, Asia, and South America, according to Indian urban planner Rashmi Mayur. Mexico City, now the world's largest city, today has 17 million people, and the United Nations projects that it will have 28 million inhabitants by the turn of the century. 'It is already a city characterized by breakdown—of air quality, of traffic control, of crime,' says Mayur in the August issue of *The Futurist* magazine.

Population growth is a major factor in the 'explosion' of cities in the Third World, says Mayur. Some 82 million people were added to them in 1984 alone, more than half of the urban growth in the southern hemisphere being due to migration.

Over 20 million people a year in the less-developed countries leave their homes and move to urban areas. So while the 'supercities' are growing at three to four times the rate of national growth, smaller towns and villages are dying. 'Streams of people are moving into overcrowded cities,' says Mayur, 'although the situation in many of these cities seems even more horrendous' than conditions in the countryside.

If trends in crowded India continue, 'at least 75% of Bombay's population will live in squalid conditions, with

the resultant breakdown of services and amenities, deterioration of living conditions, and decline of the quality of the environment—not to mention social, political, and institutional, collapse,' warns the Bombay-based planner.

But Mayur believes that there are ways of dealing with these tremendous problems. He proposes the creation of a metropolitan administration in each supercity that could 'function independently from the national government'. Subdivisions of the region would be managed by decentralized local bodies, 'so that authority can be delegated as close to the people as possible'.

The first task, according to Mayur, is to 'decongest' the inner city—by banning automobiles and developing urban transit. Modernization of communications systems, recycling waste, and recovering materials—especially non-renewable resources—should also be high on the agenda. 'Third World cities cannot afford to squander scarce and dwindling resources through a policy of laissez-faire,' notes Mayur.

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