NASA: Caught between Congress and Apartheid

Midway through a brief tour of South Africa last summer, Representative Charles C. Diggs, a Democrat from Detroit's inner city, took time out to visit an obscure spacecraft tracking station near Johannesburg run by the South African government for the National Aeronautics and Space Administration (NASA). For the 15-year-old station and its 270 employees, the visit marked a special occasion, for this was one of the few times that a U.S. congressman had gone to the trouble of riding 30 miles across the veldt to inspect this backwater outpost of the American space program. Certainly, it was the first time that a black congressman had done so.

The visit also left some special memories with Diggs, who is chairman of the House Foreign Affairs Subcommittee on Africa and dean of the House's black delegation. Though it came as no surprise to him, Diggs was nonetheless deeply disturbed to find that the tracking station—a facility financed by the U.S. government at an annual cost of $3 million—should be racially segregated, right down to the toilets, in strict compliance with the laws and customs of apartheid.

Unlike the South African subsidiaries of such American firms as General Motors, the tracking station displayed no signs setting certain areas aside "For Whites Only." But this was only because, as station manager Doug Hogg is said to have explained, "everyone knows where he's supposed to go." One place where black workers are not allowed to go is to the tracking station's cafeteria, where white, technical employees enjoy hot meals while the 61 nonwhite, nontechnical workers are obliged "to sit outside under trees and nibble sandwiches," in Diggs' words, or else walk home for lunch, which, for some, means a round trip of 6 to 8 miles on foot.

Most important, figures supplied later by the South African government showed that, while black nationals make up 20 percent of the staff, they earn only 4 percent of the wages paid. This apparently is because nonwhites are hired only for menial jobs and are given no opportunity to advance beyond this level. (One black worker did enjoy a promotion of sorts, if only for the day of Diggs' visit. Introduced as a "personnel counselor," the man later turned out to be the driver of a station car.)

Space agency officials do not dispute that the station is segregated. But they see this as merely being the natural, if highly unfortunate, order of things. The station is run by the South African government, they point out, and apartheid happens to be the law of the land.

To Diggs, however, this contractural relationship is tantamount to "complicity" by NASA in South Africa's subjugation of its nonwhite majority. With that in mind, he is demanding that NASA break its existing contract and then either see to it that living and working conditions are improved for black workers at the station (all of whom live in rather squalid government housing) or else close the station. From NASA's viewpoint, the first course would be extremely difficult—though some efforts are being made in this direction—but the second is simply unthinkable. Thus has an influential congressman skewered the space agency on one of the stickiest foreign policy issues of its 15-year history.

Small but Significant

By some measures, the dispute over the tracking station may seem trivial. After all, it directly involves only one little-known facility and fewer than 300 employees, including only one American, a technical representative from Caltech's Jet Propulsion Laboratory (JPL).

Nevertheless, Diggs and others see great symbolic importance in NASA's beleaguered tracking station. Except for the American embassy in Pretoria, the station is virtually the only manifestation of U.S. government presence in South Africa. On this basis, Diggs feels that the station's full and willing compliance with apartheid conveys the erroneous impression that the U.S. government is not at all concerned about race relations in South Africa.

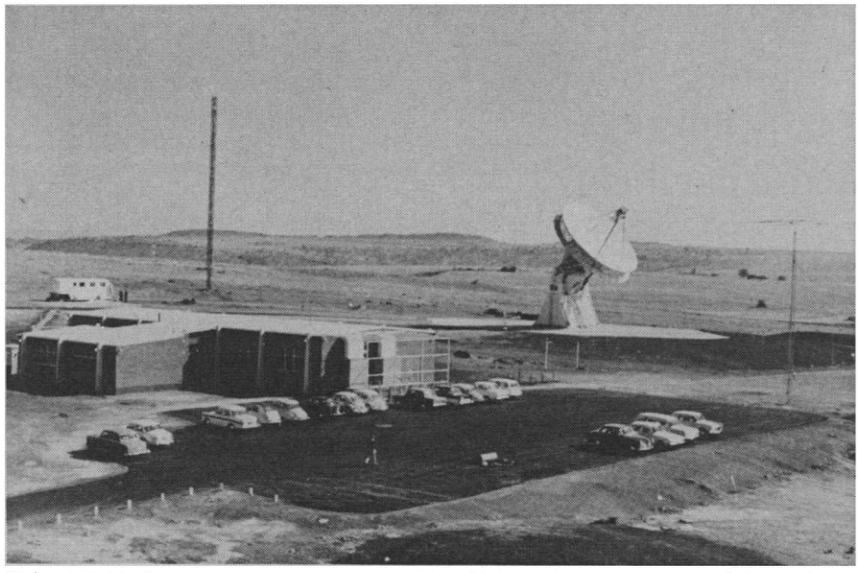
Further, Diggs is convinced that the station serves as a model of behavior—and a poor one at that—for many of the approximately 300 American businesses with subsidiaries in South Africa. According to Diggs, "Probably part of the reason that many of these American businesses feel the [U.S.] government is not serious [in its objections to apartheid] is because of the examples set by our own embassy—where they know, as a matter of policy, black Americans are not assigned—and by the NASA tracking station, where discrimination is practiced in its most blatant form."

The station is one of 20 similar NASA installations scattered across the United States and seven foreign countries. This particular one was established in the mid-1950's under a cooperative agreement between the South African government and the U.S. Naval Research Laboratory in preparation for the International Geophysical Year.

In 1960, the State Department negotiated a new contract giving responsibility for the station to NASA. Under the new agreement, however, the facility continued to be staffed and managed by the Council for Scientific and Industrial Research (CSIR), South Africa's main R&D agency. While NASA agreed to pay all the costs of equipping and running the station, South Africa sweetened the deal by chipping in the land, buying up a 4000-acre buffer zone around the station, laying the necessary roads, granting NASA the use of radio frequencies assigned to South Africa, and exempting all supplies and equipment from import duties.

(While most tracking stations are run by a mixture of Americans and local nationals, this one was to be staffed entirely by South Africans. NASA officials are quick to point out, however, that the same arrangement holds at stations in Spain, Australia, and Britain.)

Tucked far away in a pastoral South African valley, the station performed its duties in obscurity for more than a decade, until Diggs learned last year that it was being run with something less than an egalitarian hand. Twice—in June and September—his subcom-



This 1967 NASA photograph shows part of the U.S. tracking station near Johannesburg.

mittee summoned NASA officials to public hearings to explain what, if anything, they planned to do to institute fair employment practices at the station and to explain why one was needed in South Africa in the first place. NASA had little to say to the first question but it was more than willing to answer the latter.

Although the station plays no part in manned space missions (an assertion that it was essential for the "safety and security of our astronauts" was made and later recanted), NASA officials say the station is essential for 24-hour coverage of planetary shots. Immediately after launching, they explained, most deep-space probes—including the Pioneer 10 on its way to Jupiter—fly southward relative to the earth and remain in the Southern Hemisphere sky for 8 to 12 weeks before moving northward above the equator and into the view of deep-space tracking antennas in California and Spain. Until then, the space agency depends on stations in South Africa and Australia for constant contact with these probes.

This explanation, however, by no means forecloses the possibility of setting up a Deep Space Network station somewhere else in southern Africa. During the September hearing, NASA's Associate Deputy Administrator, Willis H. Shapley, went so far as to suggest that if it absolutely had to, NASA could build a new station from scratch in Zanzibar, for example, but only at the considerable cost of $35 million to $40 million. Zanzibar, of course, is where NASA had a satellite station some years ago, until a revolutionary government booted it out.

Privately, NASA officials concede that if a "fire or something" knocked the South African facility out of commission "the space program wouldn't grind to a halt. We'd make do."

One way of making do would be to shift operations to an existing NASA satellite station run by the Bendix Corporation at Tananarive, capital of the Malagasy Republic, which lies only 6 degrees north of Johannesburg and well south of Zanzibar. The reasons for not doing so, and for staying in South Africa instead, seem to have less to do with the exigencies of celestial mechanics than with homely politics. The political stability of a host nation counts for a lot in NASA's book, and, as one top official notes, "Who's to say that the Malagasy Republic is more stable than South Africa—after all, it was Malagasy that threw our ambassador out not long ago." In any event, Shapley insists that "Picking up our marbles and leaving is not a realistic possibility."

Neither, in NASA's view, is any dramatic change in employment practices at the South African station. The space agency sees itself as merely buying a service, with no attendant authority to say who is to be employed in the process and how they are to be treated. As expressed by Gerald Truszynski, NASA's head of data acquisition and tracking, "We do not dictate employment activities or policies . . . inasmuch as we are not the direct employer of the people involved. Rather, we contract for services provided by the CSIR."

In a recent interview, Shapley went a step further, contending that: "Despite references to this as a NASA station, it is physically and actually a South African facility which we pay for. We as a government have no more basis for telling them how to conduct themselves than they would have if they had a station in the United States and wanted us to practice apartheid in it."

This position may seem a bit weak from a humanitarian point of view, but legally it is probably quite correct. The Civil Rights Act of 1964 does not pertain to the employment policies of federal agencies, and the only germane authority in this case seems to be Executive Order 11246, signed by President Johnson in 1965, which forbids racial and other forms of discrimination by government contractors. But the order contains a loophole through which NASA operates its South African station: Contracts for work performed outside the United States and not involving recruitment of U.S. citizens are exempt from fair employment requirements.

Thus the space agency, hyperallergic as it is to foreign policy disputes, has never before seen fit to talk to the station management about race relations.

Never, that is, until Diggs took an interest in the matter. Then, last fall, with a congressional subcommittee on its back, NASA did begin a discreet effort to wheedle some concessions for black workers. This effort has included an exchange of letters with South African officials, and last Thanksgiving a high-level NASA delegation flew to Johannesburg for talks with station manager Doug Hogg and Frank Hewitt, a former manager of the station and now a vice president of the CSIR.

Late last month, just in time for the annual authorization hearings on the space budget, NASA informed the House space committee that it had "reached an understanding with the CSIR" that opened the door to improved housing, schooling, and a community social center for black workers and their families at the station site. In addition, the CSIR reportedly has promised to provide midday meals for nonwhite employees "who would prefer not to eat at home."

At present, the South African govern-

ment maintains on-site housing for black workers at the station, but, according to Diggs, these accomodations are nothing more than "pillboxes," without plumbing or electricity. And while their children do attend two primary schools, the schools are 3 miles from home and no transportation is provided.

A NASA statement says that the CSIR is thinking about building an elementary school near the tracking station that would double as a community center for nonwhite workers and their families. NASA and the CSIR also say that they're looking into the possibility of giving financial aid of some kind to nonwhite children at the station who want to attend secondary school. The only ones in the vicinity open to the children are residential schools, and for most families these are prohibitively expensive.

None of this seems to represent a lifting of apartheid, however, and none of it seems to have pacified the congressmen nipping at NASA's heels. In full knowledge of the CSIR's concessions, Representative Charles Rangel, a Democrat from Harlem who sits on the House space committee, is pushing an amendment to the space authorization bill which—if adopted by the full Congress—would force NASA to close both its tracking station near Johannesburg and a smaller optical tracking station at Olifontsfontein.

Could further concessions be reasonably expected from the South Africans? NASA officials insist that anything as dramatic as the abolition of apartheid at the station is simply "unrealistic." They say that, in their very private talks with the South Africans, they are not only obliged to speak softly but, by their estimates, they wield a rather small stick. In the absence of any legal leverage, NASA's persuasiveness depends to a great extent on how hard Diggs, Rangel, and others press for reforms at the station and on how badly the South Africans want to keep it. There is some difference of opinion on the latter point.

Beneficial for South Africa

"This station is better known in the United States than it is there," one space agency official insists. "It's important to a small segment of the scientific community there but not to the community at large. Why, some people at CSIR hadn't even heard of it." However, other reports (*Science*, 10 July 1970), indicate that some South Africans feel that the station bestows a measure of international prestige on them, that it provides a valuable entrée to advanced technology, and that it serves as a useful training ground for engineers and technicians. (Neither of the two training programs run by the CSIR at the station is open to black employees, at least partly because the South African Job Reservation Act forbids nonwhites from working as electrical engineers.)

Predictably enough, Diggs, his colleagues, and staff show little tolerance for NASA's squeamishness. Mrs. Goler Butcher, a staff member of the Diggs subcommittee, says that neither NASA nor the station managers have yet demonstrated that black workers could not be given job training, promotions, higher wages—all within the restraints of apartheid. Nor, she says, is there any obvious legal obstacle to turning the operation of the station over to an American contractor like Bendix which would be subject to fair employment regulations.

"The South Africans are very practical people," Mrs. Butcher says. "When they want something they can make the necessary accommodations. . . . Once the people at NASA get it through their heads that we are going to keep pressing this issue, and once they relay that message to South Africa, I am convinced that things will all be worked out."

—ROBERT GILLETTE

Blood Banking: Money Is at Root of System's Evils

The past couple of years have witnessed growing concern about the efficiency and safety of blood banking practices in the United States. Critics deplore the commercialism that is woven into the business, competition and lack of coordination among various blood banking networks, sharp variations in the costs of blood and blood processing around the country, and the flimsiness of both state and federal regulatory activity.

The most visible part of the controversy centers on the fact that thousands of people die of hepatitis each year after being transfused with virus-tainted blood. This blood tends to come from certain kinds of paid donors—alcoholics, drug addicts, and prisoners—among whom surveys have found hepatitis to be 10 to 70 times more prevalent than in the rest of the population.

The best available statistics (and these are none too good) show that hepatitis in the blood of paid donors occurs in about 30 cases per 1000, as opposed to 3 cases per 1000 among volunteers. It is estimated that 1 in 150 patients receiving transfusions is inoculated with the disease, and of these, about 15 percent of persons over 40 years of age die from it. The Center for Disease Control in Atlanta estimates that hepatitis resulting from transfusions accounts for some 3500 deaths a year, but many doctors believe that, because of unreliable and inconsistent reporting, the total is closer to 35,000. The Australian antigen test developed a few years ago is now almost universally used, but this test detects hepatitis in only 25 percent of affected blood.

The reaction of many members of Congress and of the public is that the obvious solution is to move the nation onto a totally volunteer system of blood donation. A number of bills introduced in Congress have been aimed at easing commercial blood out of the national circulation, but a look at the blood practices in the nation today shows that this is no simple matter. Because blood banking has essentially grown up in private hands, with little or no central civilian or government guidance, there is little agreement even among the best intentioned and best informed over what steps should be taken. And since no consistent nationwide data exist on the economics of blood banking or the uses to which blood is put, various