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## AIRPORT INFRASTRUCTURE

New Durban airport begins to take shape, but clock is ticking

By: Margie Inggs



The approach to the new Durban International Airport looks like a wasteland and makes you wonder how the Ilembe consortium is ever going to have it ready by May 1 next year. But as you breast the hill and look down, the amazing sight of a virtually complete airport rises impressively to greet you.

Ilembe, which is responsible for the design and construction and has been working on the site for 19 months, is currently finalising a contract with Airports Company South Africa (Acsa) and the Dube Tradeport to maintain the airport for ten years after its completion.

The consortium comprises 18 companies, the two principal stakeholders being Group Five and WBHO. Deadlines are tight as work surges ahead, with the designers working just a step ahead of the contractors.

“This is a very fast tracked project requiring a far greater level of collaboration between contractors and designers than is, perhaps, usually the case in South Africa,” Jon Broadhead, the project services director for construction and management consultancy Turner & Townsend said last week.

Broadhead said this was the first time he had worked on an entirely brand-new airport so it was “very exciting” for him.

“You don’t get a chance very often to work on a greenfield airport as only five have been built in the world in the past ten years,” he said.

The airport’s 3,7-km runway, which is 60 m wide, will be able to accommodate the world’s biggest aircraft, including the new Airbus A380. The runway at the existing airport is only 2,4 km wide, limiting the size of aircraft that can land there.

Ample aircraft parking stands will be able to handle 25 B737s and two A380s and there will also be two dedicated cargo stands.

The modern 35 000-m<sup>2</sup> terminal will accommodate 7,5-million passengers a year, compared with the existing airport’s 4,7-million.

Colin Naidoo, Acsa's communications manager, said only about 800 ha of the 2 060-ha site was being developed in phase 1 but that the airport was being constructed so that the terminal, runway and car park could be extended to accommodate the 45-million passengers expected by 2060. The contractors have already moved 5,8-million cubic metres of earth, poured 100 000 m<sup>3</sup> of concrete, erected 4 700 t of structural steel and laid 230 000 t of asphalt and 700 km of electrical cabling.

When complete, there will be 400 000 km<sup>2</sup> of runway, taxiway and parking aprons.

"Critical construction activities still in progress include the terminal building, runways and taxiways, the installation of electrical systems and the construction of the N2 interchange," Broadhead said.

He expected most of the building construction and civil engineering work to be finished by Christmas and said commissioning and trial operations would start in earnest in January.

One of the biggest challenges faced by the consortium was the 77-day delay between the award of the tender on June 6, 2007, and the start of site work on August 31, 2007, caused by the wait for the record of decision.

"This increased the price tag from R6,2-billion to R7,2-billion," Broadhead said. "The record of decision also required the Dube Tradeport and Acsa to change several aspects of the contract, especially the details relating to road access. This included the design of the N2 interchange, which was subsequently let as a separate contract by the South African National Roads Authority," said Broadhead.

The project is monitored every month to ensure that it is on track to meet the deadline for the official opening date.

"All the bulk earthworks are now finished, the multistorey car park and control tower are almost complete, 141 km of electrical ducting has been installed and most of the concrete for the buildings has been poured," he said.

By the end of February, R4,47-billion worth of work had been completed and 4 862 workers were on site. Sixty-four per cent of the terminal roof has been finished and Ilembe is laying the asphalt on the runway and the concrete on the parking aprons.

Ilembe is currently installing the cargo handling equipment in the cargo building, which is adjacent to the 10-ha trade zone that will comprise mostly light industrial enterprises, as well as an agrizone. A support zone will also include commercial facilities, such as a hotel, an information technology/telecommunications hub and a conference centre.

Broadhead said the state-of-the-art high-volume cargo processing and handling facility would store perishable goods and provide cold storage, as well as a courier and parcel facility.

The four fuel tanks for the fuel farm have also been completed. The fuel will be brought by truck from the refinery next to the existing airport.

The construction of the airport – about 30 km north of Durban – has been under the environmental spotlight, with the Department of Water Affairs and Forestry (Dwaf) and the Department of Environmental Affairs and Tourism (Deat) keeping an eagle eye on developments. "The construction site

is audited every month by an independent auditor and Dwaf and Deat visit the site every three months,” Broadhead said.

“For the past year, we have managed to maintain a compliance score of about 90%, which is quite impressive for a project of this scale.”

One of the biggest environmental concerns has been the reedbed in the aircraft flight path, which is the nesting ground for about three-million swallows every year between October and mid-April.

However, Naidoo said Acsa did not expect the airport to have much impact on the swallows, as it had hired a bird monitoring system from Miami to research their habits, and the birds’ flight patterns were well below those of any aircraft. “Also, we don’t expect the noise to bother them much as we have discovered swallows living quite happily at the existing airport,” he said.

Some 3 000 people are employed at the existing airport, including the employees working for various companies, and Acsa expects this number to treble at the new airport.

Rohan Persad, the MD of the Dube trade port, said the new Durban International Airport would have a fundamental impact on the structure of KwaZulu-Natal’s economy because of the current very limited air connectivity and capability.

Edited by: **Martin Zhuwakinyu**