Where Can I Park My Plane?

With AeroTURN Pro, airside planners have all the answers

By Chris Johns, Transoft Solutions

As a small country in the South Pacific, Papua New Guinea is a key jumping off point between Australia and Malaysia. The main airport is Port Moresby/ Jackson’s International Airport, owned and operated by the National Airport Corporation (NAC), which also operates several of the other regional airports across Papua New Guinea.

While it doesn’t have the population of some of the surrounding countries, the Port Moresby airport handles planes from across the country and around the world. The national carrier, Air Niugini, is adding planes to their fleet and the cargo capacity is expanding simultaneously. To ensure operations ran smoothly Navu Kila, a senior draftsperson with the Civil and Architectural branch of the NAC, needed gate planning tools that put safety as a top priority.

The International Civil Aviation Organization (ICAO) recommended some safety improvements for the Port Moresby/ Jackson’s International Airport, based on the Annex 14 protocols. Kila heard about AeroTURN Pro from a colleague and was pleased to find out that many of the ICAO safety standards were already built into the software, so now he can park planes on the tarmac and the gates with confidence.

“All of the safety requirements are basically mapped out in the software,” says Kila. “Having the safety requirements of the ICAO built into the software just ticked all the boxes for us. It saves us a lot of time nowadays just to be able to answer our clients’ queries.”

Some of Kila’s safety concerns stemmed from having to figure out where different aircraft could go safely on the apron. It was guesswork and hoping that the calculations of his staff were correct. “Our company was doing all the aircraft maneuvering and parking positions manually on AutoCAD,” Kila explained. “When I got the demo (of AeroTURN Pro), I was able to pick points and work out the best parking position ahead of time which helped us a lot. That’s when we decided to purchase AeroTURN Pro.”

The SmartPath tools at the heart of AeroTURN Pro gave Kila the confidence to set up parking arrangements for every type of aircraft that arrived at the terminal. He looked up each model in the aircraft library and could then visualize how the different planes could be moved around the aerodrome safely. For example, Air Niugini put two ATR-42s into service recently.

“Our major client is Air Niugini here in Papua New Guinea,” says Kila. “Recently, the queries have been coming every month for new places to park aircraft, not just on the apron.

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Navu Kila
but when they park aircraft overnight. With AeroTURN Pro, I'm able to tell them the wingtip clearances and the best position to park a number of aircraft in one place without infringing on any physical obstacles on the airfield.”

Kila learned the software in a way that worked for him—through the step-by-step tutorials featured in the software. Several of the innovative features including the SmartPath tools, the passenger boarding bridges and the jet blast clearances have their own learning modules for airside planners to immerse themselves. “I didn’t train on AeroTURN Pro,” said Kila. “I used the tutorials to find my way around the program. They were very informative. I think the main one I looked at was the Passenger Boarding Bridge tutorial. It was important when we were installing our new aero bridges in our international terminal. I was able to use AeroTURN Pro to get the right model of aero bridge and set the location of the wheels and the height of the bridge. All the manual calculations that we did before, AeroTURN Pro does them now.”

From his office at the Port Moresby airport, Kila provides guidance to the other 22 regional airports in Papua New Guinea. He found that the AeroTURN Pro tutorials gave him the knowledge he needed to find solutions quickly for the other airports. “At some of the smaller airports, jet blast clearances are a big issue,” says Kila. “Lately, one of the airline companies (Air Niugini) just bought a 737 and we’re trying to get it into four of our regional airports. We had to utilize the jet blast clearance tool in those areas because the terminal buildings are not designed to withstand jet blast. That was a great tutorial for me and it helped a lot.”

“We are very pleased to have the National Airport Corporation of New Guinea come onboard as a valued client,” says Michael Frost, business development manager for aviation at Transoft Solutions. “Personally, I enjoyed the opportunity to collaborate online with this group early in their technical evaluation of AeroTURN Pro’s capabilities within their existing airport layout to review some of the critical and challenging areas of study. We are looking forward to continue supporting their efforts and to learn of the successes they will experience utilizing AeroTURN Pro for their planning requirements.”

With queries now taking hours instead of days to answer, Kila might be able to enjoy some Papua New Guinea sunshine now.

While these screen shots are in 3D, they illustrate the level of detail airside planners see while managing operations on the tarmac.