

Secure Loads – Everyone's

When was the last time you had a chat to your ground handlers about the centre of gravity?

For CAA Air Transport Inspector, Tom van Rooyen, the danger posed by insecure loads is personal.

The 16,000 hrs-plus Boeing 777 captain was, in June 2015, taxiing for takeoff at Tambo International Airport in Johannesburg, on a regular Monday run to Dubai, when the cabin crew called the flight deck.

"They said there was a strange noise in the belly of the aircraft. When I asked them what it sounded like, their reply sent shivers down my spine. 'It's a rumbling sound, like someone rolling an empty 44-gallon drum around.'

"With images dancing through my head of a recent 747 fireball due to moving cargo, I immediately returned to the gate. And yes, it was found that some cargo containers had come loose and were moving around the hold.

"Who knows what would have happened if the attendants had not said anything?"

Since 2010, in New Zealand there have been 99 instances of wrongly loaded cargo, shifted cargo, or cargo not secure. The occurrences have come from across the spectrum of aviation activity.

The good news is that, increasingly, the instances have been discovered before pushback. But, even taking into account that the cargo transport sector is growing, the not so good news is that of those 99 instances, 51 have occurred in the last two years.

"These types of occurrences," says Tom, "could have a potentially catastrophic outcome. Making sure cargo, cargo containers, and luggage are stowed properly is everyone's responsibility.

"Quite simply, it's 'eyes open'.

"The mechanics and engineers circling the aircraft as it's being readied for flight can pick up on something that doesn't look quite right.

"And vigilant cabin crew willing to speak up, as they were on the flight I described, may prevent a tragedy, or at the very least, an intensely stressful situation."

But of course, the baggage or 'ramp' handlers are the first line of defence against incorrect stowing practices.

"But how much do they know about the importance of what they do?" questions Tom.

"If they don't know much, and they feel that what they do is not very high on the safety scale, and they're rushing to load an aircraft that must be away at a certain time, or the weather is bad, they may not work with the care needed to avoid a disaster."

Tom says it is a natural part of safety management systems for everybody in an operation to have what he calls a "healthy culture of suspicion".

"If something doesn't look right, ask questions. And don't stop asking questions until you are satisfied."

One of the most shocking examples of what can happen if not enough questions are asked, is that of Flight NCR102.

In April 2013, the National Airlines cargo aircraft took off from Bagram Air Base in Afghanistan, heading for Dubai. After becoming airborne, the aircraft pitched up until it appeared to stall, then rapidly descended, striking the ground and killing all seven on board.

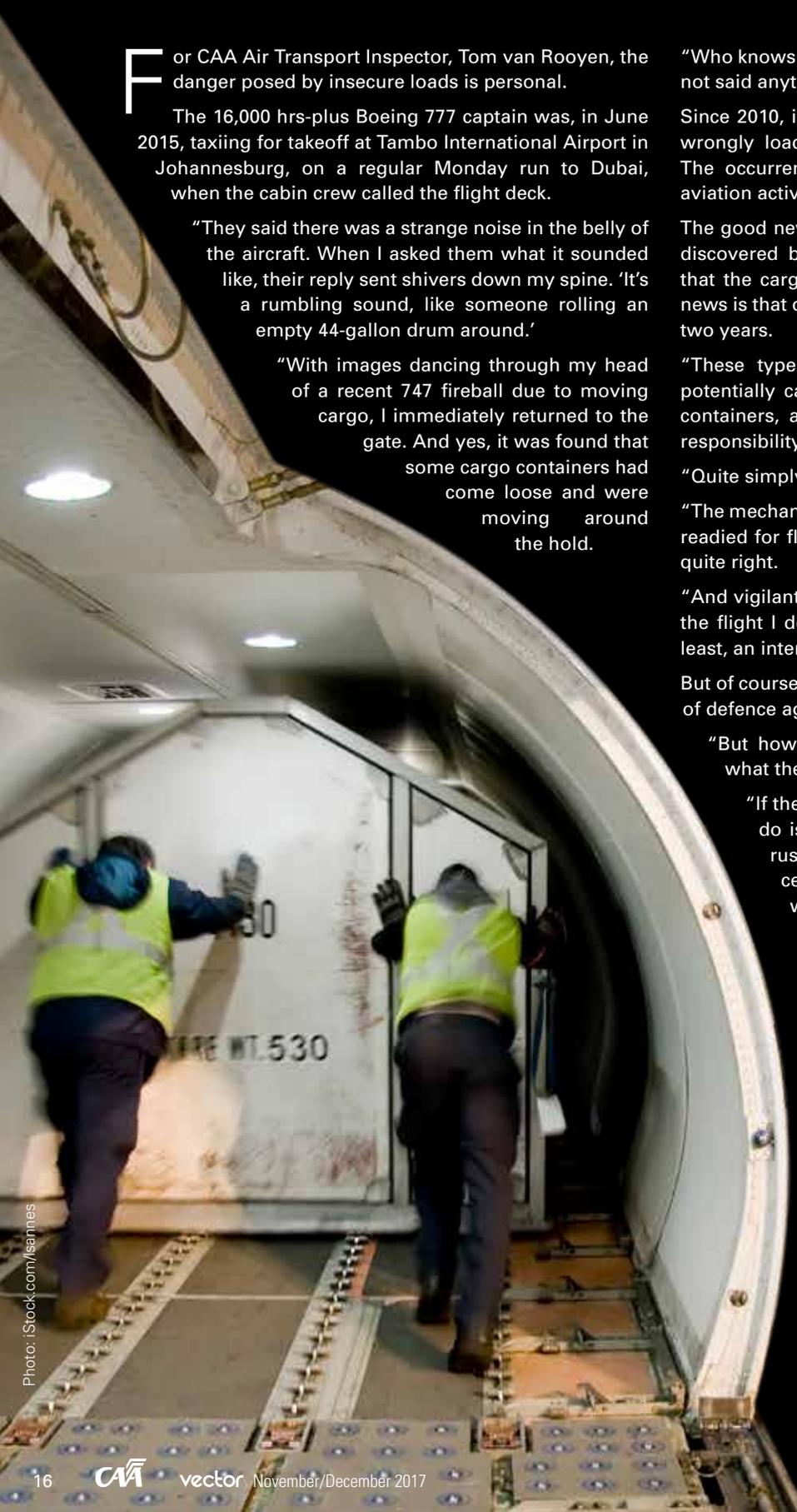


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Responsibility

The US National Transportation Safety Board (NTSB) found “strong evidence” that the accident was due to a 12-tonne military vehicle breaking its restraints during takeoff, moving backwards and damaging two of the aircraft’s hydraulic systems and horizontal stabilizer drive mechanism components, making the aircraft uncontrollable.

Tragically, the crew knew before takeoff that there was a problem with insecure cargo. They discussed that on the previous leg from Camp Bastion, some straps had become loose, and one had broken.

Cockpit voice recorder data shows the captain was anxious about the straps, saying he found the cargo movement, even a few inches, “scary”. He hoped the loadmaster would beef up the straps, and not just replace the broken one.

But the captain accepted the first officer’s assurances that the loadmaster was “cinching” the straps down, and did not question any further.

Ultimately, says Rod Buchanan, CAA’s Team Leader of 121/129 Flight Operations, it’s the air transport operator that bears the responsibility to ensure ground handlers know about centre of gravity, and weight and balance.

“This is an industry-wide problem, where time pressure, limited training, and a lack of a sense of personal responsibility create the possibility of a mis-loading event.

“How often do managers arrange some training for their cargo handlers on the safety-critical nature of their job?

“It should be part and parcel of safety management systems that everyone in an operation – CEO down – should be concerned with how safety can be enhanced, including during ground handling.”

“Making sure cargo, cargo containers, and luggage are stowed properly is everyone’s responsibility ... if something doesn’t look right, ask questions. And don’t stop asking questions until you are satisfied.”

A manager of one New Zealand operation says his organisation has experienced several instances of mis-stowed cargo.

This is despite his organisation undertaking initial training of new ground handlers, and then regularly auditing the companies who have responsibility for their recurrent training.

He says attention to detail in loading of cargo can never be taken for granted – by anyone.

“In the most recent occurrence, the ground handlers confused two containers with similar identification numbers. One container, weighing a tonne, was positioned where the second one, weighing 800 kgs, should have been, down the back.

“The aircraft did take off, but felt so ‘different’ to the captain, he radioed the company in Auckland, which discovered the error.

“It ended safely, but could so easily not have.

“Now we have a ground handler whose sole job is to check how and where every container is loaded.”

Operators also influence the way in which their ground handlers carry out their role through the operator’s attitude to worker health and safety.

The NTSB report on the National Airlines accident found the loadmaster had been on duty for about 21 hours at the time of the accident. The report noted that cargo handling personnel were not certificated, with no duty hour limitations and rest requirements.

CAA Health and Safety Manager, Riki Tahau, says that health and safety law obliges operators to manage the risks associated with the work they require their employees to do.

“That includes ensuring that employees who carry out work capable of causing a risk in the workplace – in this case, an aircraft – are adequately and suitably trained so they don’t harm themselves or others,” he says.

“The law also requires an operator to manage the risks associated with employee fatigue.”

The manager from the New Zealand operation says given the safety-critical nature of what they do, it’s important that cargo handlers are looked after.

“In some centres, staff turnover is really high, which is a risk in itself.”

He considers ground handling operations to be a major risk to the organisation.

“Even with training, you need to check from time to time that they’re working according to standards.

“I check on the handlers every now and then, and sometimes I still have to say to them, ‘hey, it’s an aircraft you’re loading there, not a railway wagon’.” ■