NEW YEAR'S REVOLUTION?

The content of this article is based on safety consultant Ivar Busk's three and a half decades of work in the areas of airside safety, accident investigation, insurance and claim recovery.

Have we learnt from ground damage that has occurred in previous years?

Over time, it's undeniable that ground damage to aircraft has cost a tremendous amount of money in physical repair costs. Yet the hidden cost, normally called consequential cost, is about six to ten times higher than the repair cost.

Over the last three decades, damage frequency has been on average in the range of 0.6-0.75 per 1,000 departures, although in some years the figures have been higher, and in some years lower.

Many activities have taken place and a number of organisations such as ARTEX (in the US), IATA, the AAGSC (for Australia and New Zealand) and the ACI, together with *GHI*, have all tried to focus on this problem.

The safety background

ARTEX (the International Air Transport Section) was part of the National Safety Council in the US. In the 1980s and the 1990s the group was very busy within aviation ground safety but recently it has slowed down its activities. Members came from all around the globe and the seminars were held in various part of the world, with the most recent being in the US. The reason for the slowdown was mainly the aviation economic crisis, where members' travel budgets were cut and consequently they were not able to participate. Following the crisis, members joined local groups instead.

IATA also has a major interest in ground safety (in other words, ground damage) and has started a number of activities to focus on this topic in recent years. One of the sub groups was the Ground Safety Group which, at the beginning of the 1990s, changed its name to the Airside Safety Group, gaining a commensurately wider area to cover. The group mainly focussed on the Airport Handling Manual, which is the source for the aviation industry, since it provides approved policies and standards covering all facets of safe and efficient operation. Later, the IATA Ground Operations Manual was developed, which is a procedure driven by focussing on "how to do it"; in contrast, the AHM is policy-driven on "what to do". IGOM was promoted as the common work tool for the ground handler instead of the various procedure manuals that every individual airline has.

"I have seen many examples of damage and incidents which could have been avoided with more awareness on the part of the operator or the managment"

To ensure that the operators, especially the ground handling companies, followed the procedures and standards, IATA duly developed the ISAGO programme (for flight operations it was IOSA, the IATA Operational Safety Audit). Today, of the 220 registered handling companies, 54% have had an ISAGO audit, but only 28% are fully compliant with IGOM. Hopefully, we will see a breakthrough in terms of less damage frequency and improved safety awareness over the coming years.

The Australasian Aviation Ground Safety Council was formed back in 1982 as a non profit-making organisation working for ground safety in aviation within the region. The council has been at the forefront of increasing awareness and establishing best practice procedures for all those who work on the ground around aircraft, whether these are large or small. Members include airlines, airports, the CAA and ground handlers in the South Pacific region.

In addition, many conferences on the subject are held in various parts of the world – all with the aim of making it safer to work around and operate aircraft at the airport. An example of this are the various *Ground Handling International* conferences and seminars. Furthermore, many local airlines (and their partners) have established forums where the problems are raised and solutions are sought.

The net gains

Yet, have all these initiatives made it any safer to operate in an airport - and have we



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Jack-knifing is usually associated with slippery conditions - but not this time

learned from the experience? I have seen many examples of damage and incidents which could have been avoided with more awareness on the part of the operator or the management. To take a couple of examples:

■ **1** A B737 needed maintenance on its engines, which required a start up and test run of the engines. Unfortunately, the maintenance period created a delay in the aircraft's flight schedule, and the aircraft needed to be towed to the departure gate straight from the maintenance area. During the towing, the flight deck operator started the engine and applied more than idle thrust to one of the engines. The tug was proceeding straight ahead but suddenly the aircraft took control, resulting in a jack-knife situation. The outcome was severe damage to the nose radome and the engine nose cowl. Estimated repair costs amounted to US$600,000 and the aircraft was out of service for a number of days.

This could have been avoided by following standard procedures and accepting a relatively small delay.

■ **2** An aircraft was receiving a normal catering onload from a catering truck of the standard box type at the right forward service door. The control lever for raising and lowering the box had suffered periodic failure, but this had not been rectified. During the provisioning operation, when the operator had engaged the upward mode for the box, the control button then failed to stop the box from moving in an upwards direction. Before the operator could press the emergency button, the entire fuselage section was lifted until a hinge broke and the door was squeezed up against the upper door frame.

The estimated repair cost was put at US$275,000 and in this case, again the aircraft was out of service for several days. The incident would never have happened if the operation lever had been changed earlier, when the first malfunction had been recorded. A new lever would have probably cost less than US$25…

■ **3** In many airports aircraft are parked remotely if they have a long ground stop scheduled. This was also the case in an incident concerning a B747 and another wide-bodied aircraft. The B747 aircraft was taxi-ing under its own power to the departure gate. When the B747 came closer to the gate there were several other aircraft in front of it. The flight deck operator decided to go on to another taxi-way to

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Defective GSE was the cause here, but it could have been rectified for just US$25...

avoid a flight departure delay. Unfortunately, the chosen taxi-way was too narrow for a B747. As the B747 was passing another parked aircraft, the left wingtip hit a catering truck which was in operation with another wide-body. The impact with the catering truck caused the truck to be tilted between the wing and the aircraft and thus it became squeezed between the two aircraft. Needless to say, the impact caused severe damage to both aircraft. The total repair bill was put at over US$10m and an out of service period of over six weeks was the net result. It should be noted that a similar incident had happened a year before at the station. Again, it could have been avoided if a minor delay had been accepted and the aircraft had followed the airport's procedure for taxi-ing operations.

These three examples, though, are not unusual – they simply serve to show how important it is that all staff involved in aviation work, whether as pilots, technicians or ground handlers, have the right attitude towards a safe operation. Safety awareness is paramount when it comes to aviation, both in the air and on the ground.

Steps we need to take

Establishment of various committees, councils and groups who work with preventive actions is only one step in the right direction, but it is a vital one.

The second step is how to combine the cost and the safety as an implication of cost: this will definitely be the most effective tool in understanding why we need to have a highly motivated and trained staff and why we must continuously follow up their performance.

The third step is getting the management more involved in the safety work. Many managers are only concerned once something has happened, and not before.

Ultimately, management at all levels in the workplace should be visible and should support the people who work for a better and safer environment; in that way, the right level of safety awareness is created. *ghi*

Do you have a story or incident that you would like to share? E-mail:
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NOT SO HAPPY NEW YEAR

POINTS TO CONSIDER

During the turnaround of an A320, multiple issues with ramp staff proficiency were noted in this opening incident. In short, an incorrect load sheet, unqualified ground crew and an unsafe pushback were all flagged up.

The flight was behind schedule, after diverting on the inbound sector, and the turnaround (ie baggage loading, paperwork, steps and pushback) was being executed by only two ground staff. The commander said that he had experienced great difficulty in obtaining any information or flight paperwork. The load sheet and NOTOC were eventually retrieved from the cab of the tug. It was then found that the fuel and crew numbers entered on the load sheet were incorrect. The final load sheet was also deemed inaccurate. Unhappily, the TRM did not understand the problem and did not appear to be qualified to dispatch flights. The commander amended the provisional load sheet and was satisfied that he had all the necessary loading information with which to operate the flight safely. After pushback, the tug drove away with the bypass pin still inserted and there was no wave off from the ground crew. Upon request the tug returned and the pin was removed - but the tug still drove off again. After further requests it again returned and the pin was shown to the flight crew. It seemed evident that the ground handling company did not appear to have the capability to handle the flight, which was very late. A lot of the commander's discretion on duty hours was being used and the flight crew felt that accepting the less than ideal load sheet was the only way to get the flight away that day. They were eventually satisfied that they had all the necessary information to operate the flight and that a record of the correct loading had been left at the station. Unfortunately, the pushback was considered unsafe and the driver did not observe standard procedures in this manoeuvre.

In a short supplement, it was stated that from the ground handler's perspective, the above incident merely highlighted how staff react when they are faced with multiple aircraft on the ground at the same time and when they engage with numerous crews, all requesting information and soliciting quick turnarounds. The brief to the staff had been: "Take your time and ensure that we stay safe." However, in the heat of the moment, staff appear to have been overwhelmed by the situation.

There were follow-up conversations and discussions on this and soon after, staff retraining was noted to be making progress.

BELOW THE WING SERVICE?

Following completion of the baggage loading of an A320, an empty baggage trailer was driven to the head of stand parking area. To get to the head of stand parking area, the ramp agent drove the baggage trailer underneath the right hand wing. Once the trailer had been parked, the agent then drove to the back of the stand, again passing beneath the right hand wing. The agent subsequently proceeded to drive the baggage trailer underneath the fuselage of the aircraft beneath the tail.

Tempting fate?

You could say so…

LEFT OUT IN THE COLD

In another A320 episode, passengers were left waiting on the steps, with the fuselage door closed and the steps' guard rails not extended.

Just after the cabin crew completed their security search, the dispatcher asked a cabin crew member if he could start the boarding process. Authorisation was given and boarding commenced. A few minutes later the crew member called to tell him that a dispatcher had not knocked on the door to allow them to open door 2L