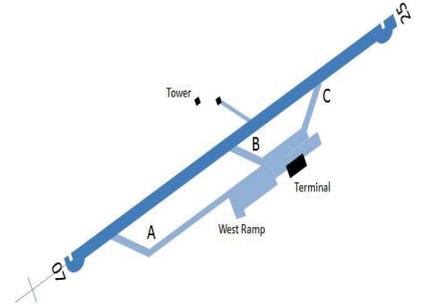


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CRISIS NARRATIVES



Since the outbreak of the global financial crisis in 2008 Business Aviation has suffered a serious set-back. The European Business Aviation Association keeps track of Business Aviation traffic in Europe and the numbers are discouraging.

Today the level of Business Aviation traffic in Europe is still around 16% below pre-crisis levels (Source: Business Aviation Departures, Arrivals, Internals and Overflights Report for EU 27, EUROCONTROL April 2013). For many operators it comes as no surprise that the number of flights today is lower than before the crisis.

MARKER

A lack of signage due to a lack of money could have resulted in a tragedy.

This has forced operators to downsize their fleets and to launch cost saving programs in order to maintain profitability, which raises the question: does the financial crisis have an impact on safety?

Impact on Safety

2012 was the safest year in aviation ever. Despite the current economic hardship, operators pilots and other operations personnel seem to succeed in maintaining and even improving safety levels.

But this is no justification for complacency. The lack of financial resources can affect safety.

Unfinished Work

26 September 2009, G-VIIR, a Boeing 777-236 lines up at Intersection Bravo of Runway 07 of St. Kitts International Airport. From this intersection, instead of the required 1915 meters Takeoff Run Available (TORA), only 1220 meters TORA are available. It is sheer luck that the lift off takes place before the end of the runway and the climb continues without further problems, so this serious incident did not

develop into an accident, but it was a weak sign, a precursor, of an accident in the making.

The crew had previously never flown to St. Kitts. They were not aware of the fact that at the Robert L. Bradshaw International Airport taxiway and holding point signs were not provided. In 2006 the airport operator decided against implementing a fully ICAO compliant taxiway and runway signage. This was due to lack of finance, as the investigators later found out.

The root cause of this serious incident lies in the airport authority's decision not to install any taxiway or holding point signs on the airfield. Had the crew briefed the taxi routing, the confusion might have been avoided. Had the Air Traffic Controller informed the flight crew that they were at Intersection Bravo, the take-off might have been stopped in time. Had the

two dead-head company employees, who had noticed that the aircraft was lining up at Intersection B instead of Intersection A, been able to talk to the commander right before take-off, the commander might have become aware of the wrong take-off position.

The operator reacted by adding a caution statement in its route manual, stating that “due to lack of signage and poor taxiway delineation, extreme care must be taken ensuring that taxiway Alpha is correctly identified when taxiing for take-off for runway 07”. In addition, a note stated that “at present there are no taxiway lines on the physical apron linking taxiways A and B; other taxi lines may not be consistent with the diagram”.

Culture at Work

10 January 2000, late winter afternoon, it is dark. HB-AKK, a Saab 340, takes off from Zurich’s Runway 28. ATC changes the departure clearance. The first officer reprograms the FMS to change the SID as requested by ATC, but omits to select the turn direction. The Commander flies the work-intensive initial climb phase of the flight without using the autopilot and does not instruct the first officer to program the FMS nor does he supervise the entry; most likely the Commander lost spatial orientation. Two minutes and 17 seconds later, after a right-hand spiral dive, the aircraft crashes into an open field near Nassenwil, in the direct vicinity of Zurich airport. All thirteen occupants perish and the aircraft is destroyed. The post-impact fire damages the surrounding farmland.

One of the contributing factors to the accident was identified in the commander not being systematically acquainted with the specific features of Western avionics systems and cockpit procedures. The commander was hired from an eastern European aviation background. Although experienced on this aircraft type, the particular avionics configuration differed, especially the Attitude Direction Indicator (ADI).

In the aftermath of the accident, investigators noted that the operator of the Saab 340 had hired pilots in significant numbers from countries where salaries were significantly lower than in Switzerland. The pilot corps was therefore considerably

multi-cultural, with employees from many nations with varied flying origins and basic training. The management, in the words of the investigation report, described the firm as a big family, in which each member



could turn to his or her superior in the event of a problem, at any time and in full confidentiality. Some employees though had a different view of the culture at work. They questioned the company management’s way of dealing with criticism was such that many found it ill-advised to express criticism openly.

Rapid growth requires cost control the same way it is required in the current economic crisis in which many operators are divesting.

Safety Culture Inertia

When companies and operators suffer stress from rapid growth, from divesting, from economical crises or from operating in difficult environments, such as the airport of St. Kitts in the West Indies, they rely on the resilience built into their DNA over several years. Survival depends on the way employees learn to deal with risks and the safety culture they grow up with.

We have borrowed from the science of business administration the concept of organizational inertia, translated it into the safety management science and elaborated the concept of Safety Culture Inertia.

Safety Culture Inertia can have both positive and negative implications. Inertia helps a good culture to continue to be good for a while, until resistance becomes too strong and lowers the culture. This is the good side of inertia. Inertia may also become a negative factor, when a culture needs to be developed and resistance acts against such a move.

In the case of the current economic crisis Safety Culture Inertia actually supports a company and individual employees from falling back to regressive ways of behavior and decision making. It is like living from the dividends of previous efforts oriented to building a strong safety culture.

Once the organization has achieved a high level of safety culture maturity, it is less likely that under stress the culture deteriorates to a level at which risks are no longer being effectively controlled.

Proud to Work Safely

DuPont, a world-class science and engineering company, sets the benchmark for the journey toward world-class safety performance. Four stages describe the shifts in mind-set and actions that need to occur over time to develop a mature safety culture.

The highest of these four stages is the interdependent stage, which is reached when employees care for and help each other. Employees are proud of their organization. Needless to notice the difference with those employees who work for the sake of survival in a company which delegates safety to the natural instincts of employees and management is not committed to safety.

In times of hardship, a strong safety culture can make the difference. Safety culture, being related to attitudes and behavior, comes at practically no cost. Companies that have invested in their safety culture over many years, today benefit from this dividend.



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DIFFERENCE
Hiring pilots from countries where salaries are low may lead to a very costly experience.