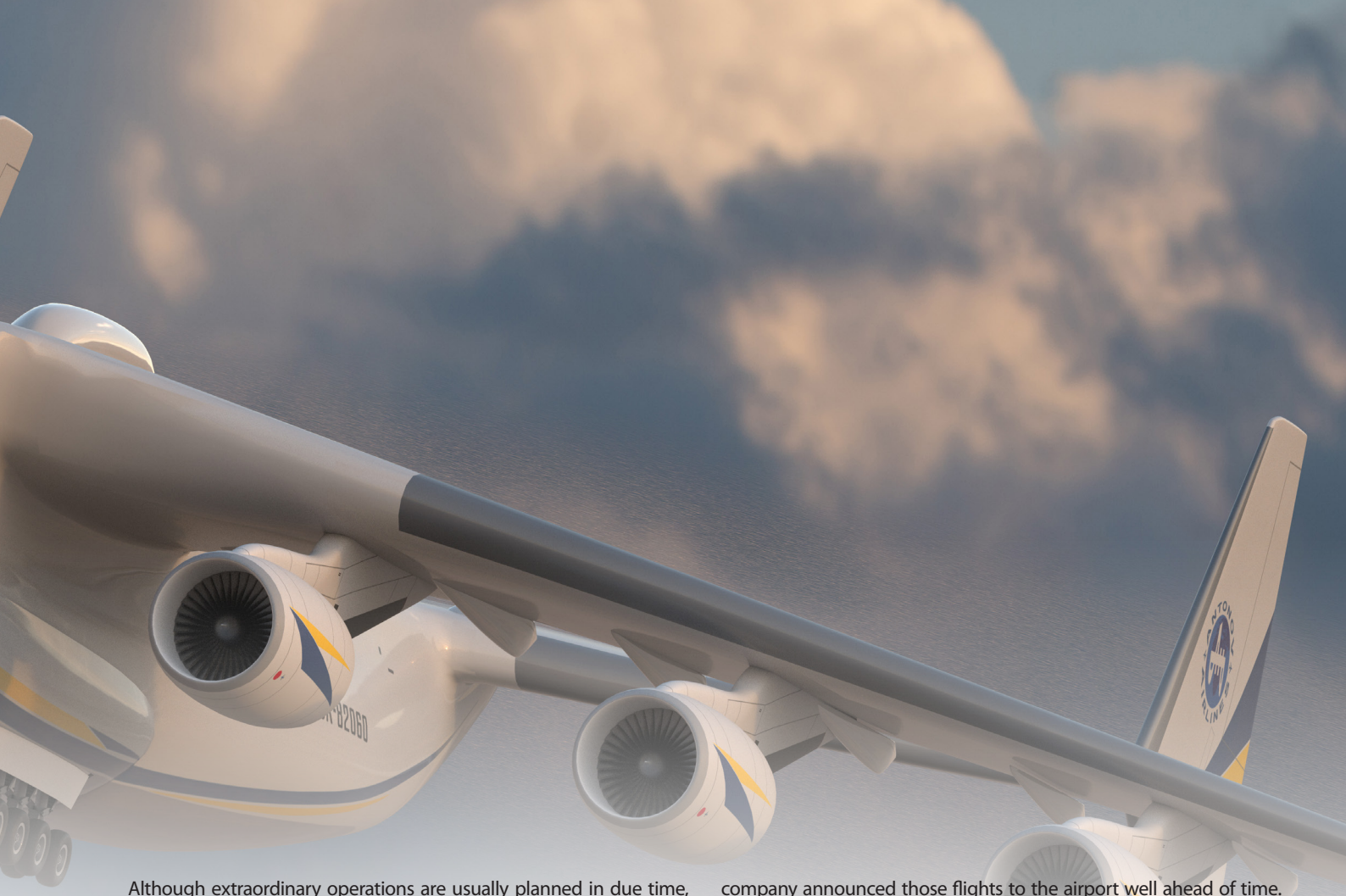
THE COSSACK FROM THE CLOUDS

Ulf Henke

Staying in control on the ground involves a blend of planning and adaptation, but the quality of our relationship is fundamental, and often taken for granted. As Ulf Henke recounts, a seemingly routine night shift took a dramatic turn with the arrival of a colossal aircraft. What ensued was a testament to competence and collaboration across teams.

KEY POINTS

- **Relationships with colleagues:** Building strong relationships with colleagues across your organisation and with external partners provides familiarity to allow for smoother communication and faster response during unexpected events.
- **The role of expertise:** When procedures aren't available, it is necessary to rely on expertise and the combined knowledge of the team in order to adapt and improvise to find solutions.
- **Clear communication:** Clear, concise and precise communication is essential for coordinating efforts and ensuring shared understanding of the situation, especially during critical events.
- **Culture of collaboration:** While you can't predict every situation, having a culture of collaboration and open communication allows us to handle unplanned events effectively as a team.



Although extraordinary operations are usually planned in due time, every now and then unexpected events happen. A good example of how to cope with such an unplanned event happened several decades ago. The event highlights the importance of relationships for communication, collaboration, and networking in order to stay in the loop. It shows how, during a critical situation or extraordinary event, complex adaptations may be needed, which rely on human expertise and interactions in the moment. The passage of time in this case does not affect the lesson from the story.

The context was different at that time: the standards and recommended practices (SARPs) published in ICAO Annex 14, the infrastructure of our airport, the aircraft involved, the political situation, and other conditions. However, the way the event was handled by our experienced supervisor showed excellent professionalism, including very good communication skills. It also showed the importance of networking within the organisation and external partners.

By that time our airport was approved by the competent authority for all aircraft below a certain aircraft classification number/pavement classification number (ACN/PCN). According to ICAO Annex 14, the most demanding aircraft in regard of wheelbase or wingspan was the Code E aircraft. Larger aircraft were not known to ICAO. (In fact, at that time there were only three aircraft more challenging than the Code E, and one of them – the C5 – was a regular guest on the military apron of the airport.)

Several months prior the event, there was a massive earthquake in the former Soviet Union. Multiple international disaster relief flights were transiting the airport regularly. Often the AN-124 was used to transfer different kinds of support equipment. But when it did, the company announced those flights to the airport well ahead of time. This enabled airport engineers to calculate possible routings, stands and other operational information prior to the expected arrival of the aircraft.

Early in my career as an apron controller, I was nearing the end of a quiet night shift. It was still dark outside, a little foggy and we were slowly preparing for the first inbound rush. That was when a short call from the tower via intercom changed the shift completely.

"Apron from Tower, look to the east, presently on four miles final and shortly appearing out of the fog, we have a rather large aircraft diverting to our airport. The cockpit crew has declared a state of low fuel, but it´s not an emergency. It just wants to refuel and then continue to its original destination."

"Tower, copied. We are used to larger aircraft. Is it a C5 for the airbase? In this case you must inform the Air Force."

"Wrong guess, apron. It´s a little bit larger."

"Oh, we had AN-124 here before. No problem."

"Apron, even a little bit larger. The flying crew doesn´t speak English too well, but they have an American interpreter on board."

It turned out that it was the Antonov AN-225 Mriya (NATO reporting name: 'Cossack') – a strategic airlift cargo aircraft with six engines mounted under the wings and a maximum take-off weight of 640 tonnes. It was the heaviest aircraft ever built with the largest wingspan of any operational aircraft at 88.4 m. Only one aircraft

was ever completed and put into active service. The AN-225 was on a disaster relief mission from the United States to Moscow. Due to unfavourable winds, the aircraft was not able to fly non-stop as planned, and needed an additional fuel stop in Western Europe. No one expected this aircraft without prior notice.

The majestic bird appeared out of the fog. While the controllers on their working positions observed its approach, the supervisor was already on the phone to the Air Force base on where to refuel, since on the civilian side there were no stands available for an aircraft this size. Additionally, all available information on the An-225, as well as on the infrastructure of the airport, had to be gathered for safe guidance after landing.

And still more coordination had to be performed: fire protection had to be provided, the source of fuel had to be clarified, a route proposal from the runway to a refuelling position had to be evaluated, the vehicles and the personnel had to be transferred to the meeting point, and so on.

The aircraft landed, vacated the runway clear of the sensitive and critical areas, and then the flight crew awaited further instructions.

When most of the coordination in the apron control tower had been completed, the supervisor decided to leave his desk and drove to the aircraft together with all available marshallers. The supervisor then supervised the obstacle clearance of the aircraft, with one marshaller directing the aircraft and two others monitoring the wing and engine clearances, also checking for possible blast issues. At certain parts of the taxiway, the aircraft had to be guided off the yellow guidance line to ensure sufficient clearance to nearby obstacles.

Until then, it remained uncertain whether the aircraft could be towed, as it was unclear whether a suitable tow bar and truck were available. The guiding crew had only one chance on the routing. When the aircraft was clear of the manoeuvring area, it was decided not to enter the military apron because of the limited clearances. Instead, the handling and refuelling of the aircraft was performed on the inner taxiway.

The inner taxiway just north of the airbase was closed for aircraft movements. Refuelling trucks and other handling personnel were guided by marshallers onto the taxiway in order to refuel the majestic aircraft. The airport security then was on spot to ensure that no unauthorised persons were entering the movement area to get a closer look of the aircraft. Meanwhile, the airport engineers evaluated a safe routing for departure. After a few hours, refuelling was completed and the AN-225 was guided to the departure runway with its wingtips still intact.

Years later, upon the retirement ceremony of my former supervisor, we chatted about 'the good old times' and I asked him about the event.

"Hans, tell me, what was on your mind when you found out that the aircraft would land at our airport."

He replied something like this:

"Ulf, in fact, it was very easy. First, I looked in my drawer if we had plans and procedures in case this type of aircraft would appear at the airport. However, the drawer of the supervisor desk was empty regarding this aircraft type. Then I had to find out whether the aircraft would be handled by our airport or the military. The next step was to call for a group of experts within the operational services with decision-making competence in their fields, to gain information about their staff and to identify possible hazards and mitigation measures.

"The mitigation measures were then evaluated by other experts to see what impact they would have on their tasks. The results were the basis for my decision-making. As far as to maintain obstacle clearance on the manoeuvring and the movement area, I always kept in mind that I only had one chance, since I did not know if the airplane could be towed. Thus, I was driving most of the time ahead of the aircraft ensuring that it still had a chance to taxi and depart without interfering with an obstacle. If I was not sure, the aircraft had to stop and wait until the approval on the further routing was assessed and assured."

As easy as it may sound, what the supervisor explained to me was an outstanding job under time compressed conditions. The prioritisation of the tasks and the information gathering and sharing to others were key to success. Today, the call for experts with decision-making competence to evaluate possible hazards and mitigation measures, and the communication of the results, is a basic step in an SMS risk management process. It is done prior to introducing new procedures or major changes in infrastructure. But this event happened decades before a formal SMS was introduced in aviation, and for an unplanned event involving a unique aircraft.

This event could not have been handled by automation since the problem was not identified in advance. No procedures were designed or available. But with highly competent people in control, there was a way of responding effectively, with risk assessments and mitigations enacted in situ to solve the problem in a safe and efficient way.

So, what should be learned from this event? Encourage and promote networking, not just among business suite levels but also within operational services, even when finding time is challenging. Think not only within the limit of your organisation but also within the whole operational community where you work. It is always easier to provide and gain support in daily operation from others, when they not only recognise your voice on the phone, but if they know you, your responsibilities and other relevant stakeholders face to face. Relationships are the heart of communication and culture, and can make the difference in critical situations. Relationships keep us in the loop, and help to keep people in control.

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STRENGTHENING RELATIONSHIPS AT WORK: ASK YOURSELF

Who are the people and organisations that you may need to interact with during surprising events?

- How do you get to know each other formally and informally?
- What kind of communication channels might be needed?
- What opportunities may be used to create personal connections that could then be leveraged during an unexpected event?

ULF HENKE joined Fraport's Apron Control Office in 1986 serving in various functions and was Head of Apron Control Office for more than a decade. In 2008 until his recent retirement, he affiliated to the Safety Management System of Fraport. Beside his duties at his home airport, he facilitated several international airports to introduce a mature safety management program.