GOOD JOB, EVERYBODY

The goals of capacity and noise abatement come to a compromise in the form of curfews. But that does not mean that the goal conflict is solved. Further trade-offs and compromises have to be made, but by operational staff, not policy-makers, as **Emmanuelle Gravalon** describes.

KEY POINTS

- **Inflexible curfew limits and associated time pressure can create the need for more compromises, which may bring many hidden risks.**
- **People are able to pursue several goals via compromise, balancing demands, resources, and expected rewards, but these can blur the goals, and the importance of the goals.**
- **Any action that brings about a pleasant situation tends to be repeated in the future.**

More and more European airports are subject to a curfew for noise abatement. We, air traffic controllers working on such airports, all have stories about curfews, and some of these involve safety. Here is one.

Around 9 p.m., the supervisor is contacted by an airline OPS specialist, who asks casually about the latest allowed landing time. Immediately, the supervisor knows he'll have to deal with curfew, time extensions and controversial decisions this evening… The flight in question accumulated small delays along the day, or was submitted to traffic regulations, or even has a small technical problem. Nowadays, the supervisor is not allowed to give any time extension, and has to transfer the question to airport operations.

Tonight, a short extension of 15 minutes is granted, corresponding exactly to the flight's ETA. At the other end, the crew is trying to gain precious minutes, pressing the cabin for quick preparation, asking the controllers for quick departure and any direct routing, flying at higher speed, asking for the shortest approach. The new ETA is five minutes earlier!

When he gets the flight on frequency, the approach controller asks to change the runway in use, to be able to allow the shortest approach. This means another controller has to modify the departure clearance of the last departing flight, which must also comply with curfew, and which was granted the same 15 minute extension.

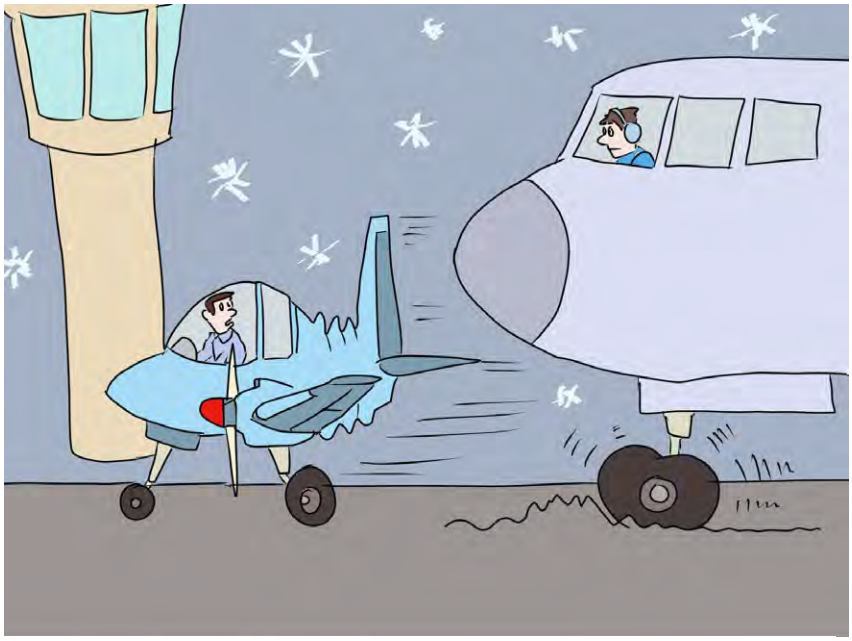
The departing flight is finally ready to taxi, shortly before the time limit, and (probably a bit stressed by time pressure) goes to the wrong holding point, according to his previous clearance. It's too late to have him all the way back to the runway in use. The tower controller decides to depart the aircraft from this runway, and asks for a strong speed reduction of the opposite arrival. The departure is given a sharp turn shortly after take-off and the arrival lands just in time.

Good job, everybody! Controllers are warmly thanked by both crews; they pass on thanks to all, back to the departure airfield. Both company OPS and ground staff are relieved, and can go home after a good day's work.

What's the problem in this story? The job was well done, and there was no loss of separation to be investigated.

Many stakeholders are involved in this type of situation. Let's have a look at who they are, and at their goals.

1. **Neighbours and politicians:** residents claim their right to silent nights, despite buying cheap houses close to an airport. Politicians decree curfew, in order to smooth neighbours' claims. Some curfews allow time extension, while others don't, and late aircraft have to divert.
2. **Airport authorities:** they are the link between politics and operations. Their goal is to comply as much as possible with a curfew. They'll have to report (and explain) to residents for each granted time extension.
3. **Airline OPS:** in case of diversion, the OPS staff will have to deal with an aircraft and its crew at the wrong airport the next morning and will have to reorganise the timetable, at significant cost. In case of flight cancellation, they will have to cope with disgruntled or angry passengers.
4. **Passengers:** they paid to be flown from A to B. To be stuck at A or diverted to C are not welcome options, and can cause significant disruption and stress for passengers.
5. **Airport ground staff:** they will have to stay longer to find solutions for the grounded passengers, and may well be subject to the stressed behaviour of passengers.



Good job! A little tight, but everyone is on the ground with a minute left until curfew.

6. **Cabin and cockpit crews:** postponed or diverted flight will disrupt their lives, both private and professional, and facing disgruntled and angry passengers is an unpleasant part of the job.
7. **Air traffic controllers:** our first and prescribed goal is safety in the form of collision avoidance. Our second goal is fluidity of air traffic: give each aircraft the best route to the destination according to other aircraft, to regulations, to weather, to technical troubles, to curfew... We also have to comply with environmental rules and please neighbours and politicians (rules such as curfew and stay on standard routing below 7000 ft).

Except for neighbours and politics, all stakeholders are staff, working and making decisions under time pressure. Some of their needs differ, but they have a common and main goal: get the passenger safely from A to B. This is actually two goals in one – "safely" and "from A to B".

In our tale, the goal "from A to B" is the common and main objective of all stakeholders. To reach this objective, staff have to deal with curfew time pressure. Time pressure adds some risks: at another time of the day, the departing traffic would have been redirected to the runway in use, or the arriving aircraft would first have landed quietly without a sharp speed reduction. So work-as-done, and what is considered acceptable, differs depending on time pressure. There are further risks, which may be less visible, in quicker-than-usual preparation. These relate to the flight, check and preparation of the aircraft, preparation of the cabin. Time pressure increases the risk that small mistakes, which would be detected and corrected in normal operation, pile up and lead to an incident, or at least an unpleasant outcome. The trouble is that all stakeholders are working under time pressure, giving less chance to detect mistakes: even if one actor had a doubt, he or she is subject to group pressure: *"Everyone went to such effort to be on time, I have to do my best as well…"*

Dealing with several goals is a human capacity requiring flexibility or adaptation. The human brain is always looking for efficiency: manage the best result possible using the minimum of resources. We balance others' needs and wants against our own.

Regarding ATC, there is a difference between "to provide (control) services" and "to render service".

- *Provide control services* means "manage traffic safely and efficiently": "Safely" is regarded as a mainly technical and regulatory matter: keeping separation between planes, applying rules and procedures. "Efficiently" is understood as managing the traffic without delaying any operations.
- *To render service* is a matter of interacting with others (controllers of adjacent sectors, pilots, airline staff, etc), and feeling useful or helpful, which is seen as efficient as well: that's the power of "good job!" and "thanks for cooperating!".

"Good job, everybody!" is one of the reasons why this story will repeat. These three words activate the reward effect. As research psychologists have found, an action that brings about a pleasant situation tends to be repeated in the future. 'Rendering service' can start to affect the 'control services' provided.

But the real problem in this story is the rigidity of the rules associated with curfew: these rules, made to provide comfort, transfer the responsibility of the neighbours' discomfort to ATC, and sometimes put safety at risk.

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