



Resilience, why and what?

SNA-RP* and thoughts ahead of TORC training

*Service Navigation Aérien – Région Parisien
Air Navigation Service – Paris region

Context: air traffic management

- Apply separation rules to keep aircraft at a safe distance from each other in their area of responsibility
 - ATCOs interact with each others (adjacent sectors) and with pilots in a highly dynamic environment
 - ATM is a highly regulated domain in which front line operators (ATCOs) are autonomous in their decision makings and problem solving
 - Adaptation to surprises is perceived as part of ATCOs daily job (they are trained for flexibility)
-
- For what situation: **emergency management**
 - Expectations:
 - **To explore the contribution of the approach to highlight organisational needs for emergency management (functions' definition)**
 - **To nurture the available resources to deal with emergencies**
 - Process leading to the involvement in the project: :
 - **Late involvement (2nd year)**
 - **TORC training basis already set**
 - **Experimentation took place at regional level proposed by national level**

@ Roissy – Charles de Gaulle

- In the framework of a overall reflection of an organisational change
- In the aftermath of the disruptions experienced in January 2015 (Charlie Hebdo attacks)
- One of the runway closed in summer 2016 for maintenance + EURO 2016 football cup
- Orly airport (South of Paris) with limited capacity over the same period for maintenance reasons
 - Reduced possibility to divert traffic in case of problems

@ Orly

- In the framework of the “unusual situations training”
 - 1 day formal recurrent training on procedures to be applied to deal with “expected” unexpected situations
 - Training is both:
 - theoretical
 - practical in simulator
- Number of personnel:

One shared scenario

- Reduced staff due to personal issue
- 3 “normal” events
 - Weather deterioration
 - 2 technical problems (radar screens black out + breakdown of ILS)
- 1 crisis
 - Reported suspicion of explosion in the terminal by one pilot





SNA-RP experiences with the TORC game



French version of the game



- 2 different experiences to fit into 2 frameworks
- A « standard » TORC game for Orly
 - Trainees around the board game
 - 2 groups of 5 ATCOs (no management)
 - Game lead by Dédale (introduction of surprises, animation of discussions and debriefings,
- A « revised » game setting for Roissy – Charles de Gaulle
 - Personnel in their offices/ job positions communicating by phone (as they would do in reality)
 - 1 group of 5 trainees (ATCOs and middle management) + 5 observers
 - Game lead by a SNA-RP representative, by phone, playing multiple roles (pilots, colleagues, management, fire-fighters, police...)
 - Overall debrief at the end of the game lead by Dédale

Added value from the game

- Identification of critical roles in the existing organisations for dealing with emergency
- Emergence of roles which could be entitled for coordinating responses
- Experience the limits of available procedures
- Identification of possible shortages in organisational resources
- Identification of potential communication flaws
- Identification of specific training needs

Improvement needs

- Find the appropriate balance in the surprises to:
 - Match the hierarchical responsibility for decision making
 - Avoid falling in trivial “daily surprises” for personnel which job is a constant adaptation
- Represent in the game the dynamic aspects of ATM domain (Connection with operational context)
- Integrate the TORC training in a larger organisational reflection