

ATR fire - Hangar F June 2012

Airport Prague Fire Brigade



Airport Prague – general

- ICAO code LKPR
- IATA code PRG
- 2x RWY (24/06, 30/12)
- 4x terminal (2x PAX Schengen, non Schengen, GAV, government flights)
- 8 hangar facility (Hangar F is the biggest)



Airport Prague – general

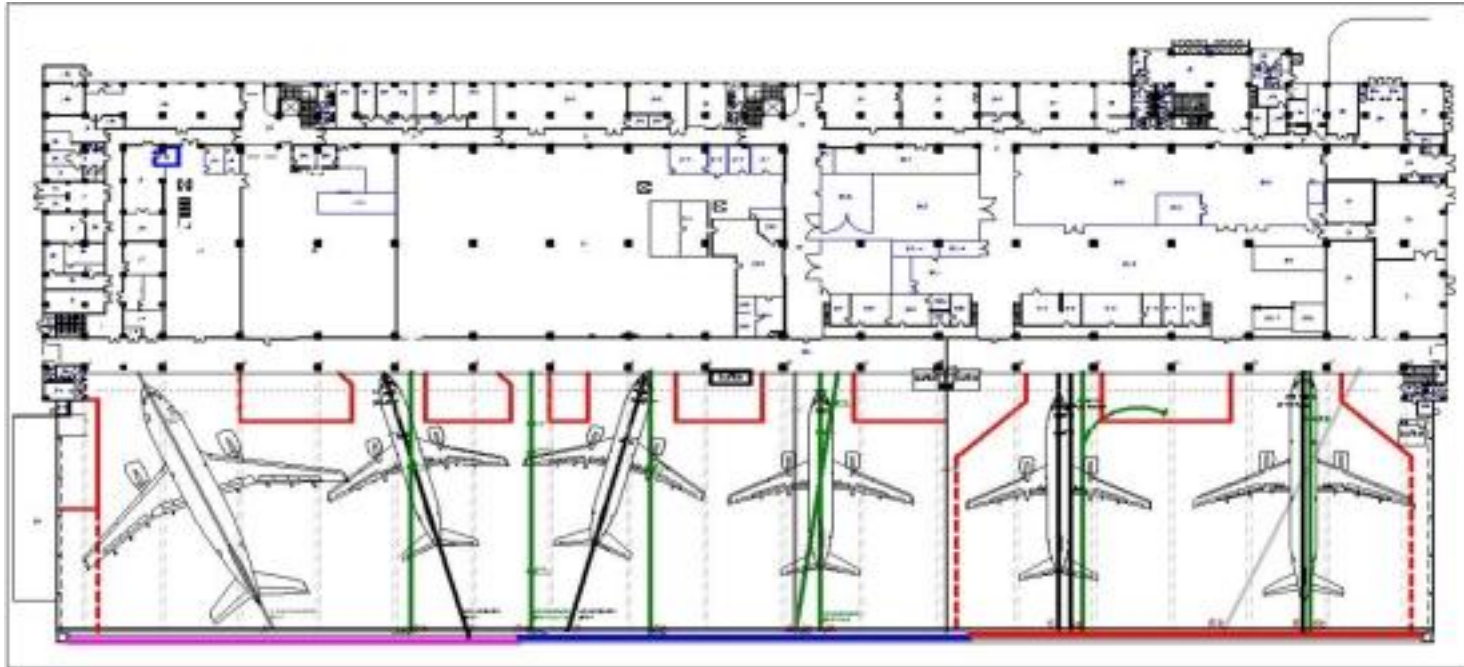
- PAX - 13 mil.
- MOV – 132 000
- CARGO – 53 mil. t.
- Airport Cat. 9
- Fire Fighting Cat. 10
(preparing for A380)



Hangar F - general

- Property of Czech Airlines Technics (former part of CSA – now subsidiary of Czech Aeroholding)
- Base maintenance
 - B737-300/400/500 Up to D-check (engines CFM56)
 - B737-600/700/800/900 Up to D-check (engines CFM56)
 - A318/A319/A320/A321 Up to 12Y check (engines CFM56, V2500 - Line Maintenance)
 - ATR42/72 K, C-checks, all levels up to 36000FH
- Line maintenance
 - B737-300/400/500
 - B737-600/700/800/900
 - B757 / B767A318/A319/A320/A321
 - A330ATR42/72
 - ERJ-170/190

Hangar F – standing grounds



Hangar F - situation



Fire time frame

- 21:19 Linear smoke detectors from Hangar F set alarm on Fire Brigade dispatch center (DS)
- 21:19 Another linear detectors from hangar hall goes to alarm
- 21:20 Fire Brigade dispatch center started a fire alarm
- 21:20 Stress call pro Hangar station dispatching confirm real situation (but description is „hangar is in fire“ – not an aircraft)
- 21:20 IC activate full squad from subsidiary station North
- 21:23 Communication between IC and TOWER – limitation of air traffic (downgrading fire fighting category for incoming flights)
- 21:21 DS call for the reinforcement municipal fire brigade – code „Alarm – 3rd degree“
- 21:21 Two squads from main fire station on site in front of hangar

Fire time frame

- 21:24 IC determine tactics – order to use airport heavy trucks to use nozzle by the partially opened doors. He decide not to use hand lines in major fire front.
- 21:30 Effort to open next part of hangar doors fails. There are damaged by blast and it is impossible to move with them manually
- 21:40 Reinforcement from Prague fire brigade are guided on site by the airport safeguard (from meeting point North)
- 21:44 **IC announce to TWR – we are back at full strength for Cat. 9**
- 21:45 In cooperation with Prague fire brigade they are asked for searching for the people in building
- 21:59 **Localization of major fire (there are still minor fires of parts)**

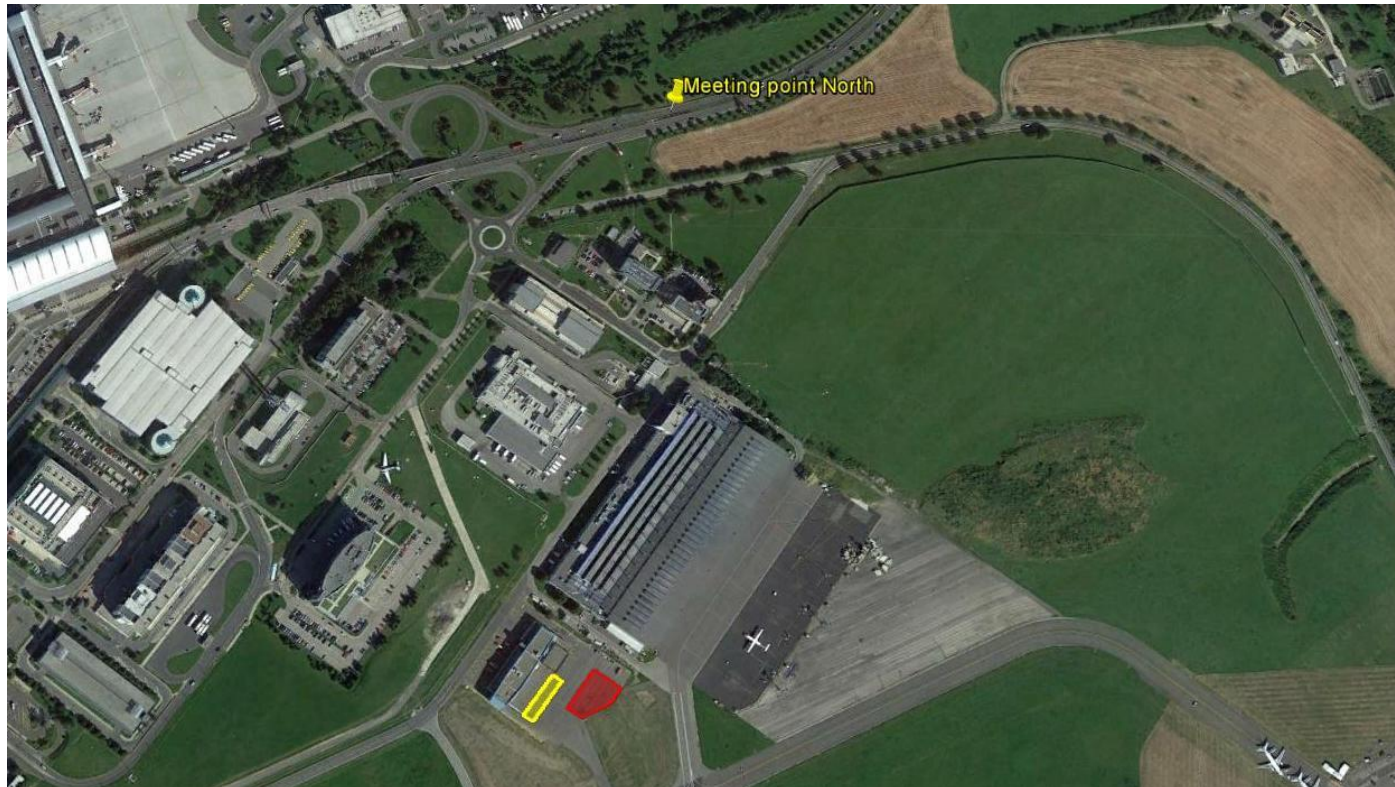
Fire time frame

- 22:34 Prague fire brigade finish with their task and is guided off the airport perimeter.
- 02:21 **Airport fire brigade finish with their task and relay hangar space to responsible person (Czech Airlines Technics – CSAT)**

Alarm

- The very first alarm by fire detectors in normal situation makes only one squad activation (building intervention fire squad). But after confirmation escalate this situation into 3rd degree of Alarm (mean full resources requirement).
- 2 squads from main fire station leaves garage 36 seconds after alarm.
- First units on site after 90 seconds (but the location 😊).
- Municipal fire brigade is activated according 3rd degree by IC in less than 2 minutes after alarm.

Meeting point with Prague fire brigade (municipal) + deploying area



On site situation



Pictures



8.5.2014

Prague Airport Fire Brigade

CCTV cameras offside hangar



CCTV camera inside hangar hall



IC – report highlights

- When firefighting starts there are activated water curtains by CSAT technicians. It significantly reduce spreading of fire
- There is inevitable of reducing air traffic (but for the limited time)
- AFFF foam is performs superior help.
- Only one IR camera from fire truck is not enough for dealing with several spots in hangar hall and at least one is needed for searching for persons.
- System of hangar door is old and need to be improved. It is impossible move with section of doors in extreme condition.

Some remarks

- Financial loss of accident cost upon the estimates up to 300 000 000 CZK (approx. 12 000 000 €)
- 3 persons was wounded (only small damages 1 was burned and 2 suffer minor damages due to blast wave.
- IR camera is extremely useful but one isn't enough for firefight on several places and evacuation.
- Take a long time to obtain list of employees on the shift.
- Camera mounted for reverse in truck is useless in heavy smoke environment.
- Any information on municipal fire brigade RDST frequency has be transferred to media

Some remarks

- There are 4 other AC in hangar (1x another ATR 42, 2x B-737, 1x A-320)
- Little collision between switching fire trucks (low visibility orientation and useless back camera)
- Old gate construction make firefighting operation harder
- Rapid intervention protect the building as well as other AC
- Cost of airport fire brigade performance (foam, trucks ...) 590 000 CZK (approx. 22 600 €)
- Saved property up to 4 bil. CZK (approx. 150 mil. €) on other AC and hangar building with technology.

Other things to learn

- There is proof of technology equipment of building (fire detector system, water curtain)
- Perfect reaction of CSAT staff (opening part of the doors)
- Cooperation with CSAT (we are organising regular fire exercise with CSAT)
- Written procedures with municipal fire brigade (easy to ask for reinforcement)
- Proven building intervention time for airport fire brigade
- IC decision about diverting only a few flights

Thank you for your attention

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