Drones Impact on Network Operational Safety Working Group DINOS WG

Template for drone incident tabletop exercise

This document provides guidance to run a tabletop exercise with your local stakeholders to simulate an unauthorized drone detection/drone sighting near your airport. The objective of the exercise is to test the preparedness and response capabilities of relevant stakeholders and improve your Local Operating Procedures (LOP) and the response to an unauthorized drone sighting/detection in the vicinity of your airport.

Before the exercise

Determine the specific goals of the exercise. Are you testing response protocols, communication procedures, or coordination between different agencies? Clearly define what you want to achieve.

Plan a date, time and location well ahead to allow all key stakeholders to be on site.

Appoint a facilitator for the exercise and debrief session.

Look into the drone legislation/rules (for liability/responsibility purposes to see to what extend it could involve law enforcement agencies or other actors).

Prepare multiple scenarios, either based on actual incidents in the local environment or realistic scenarios. Possible scenarios:

➤ Drone detected by Drone Detection system (including drone identification).
➤ Drone sighting by Flight Crew.
➤ Drone sighting by professionals (i.e. Air traffic Controllers, Airport Operators, police).
➤ Drone sighting by the general public.
➤ Critical location/attitude of the drone (e.g. final approach/closing in)
➤ Less critical location/attitude of the drone (e.g. more distant/moving away)
➤ One drone.
➤ Multiple drones at the same time & locations.

➤ Multiple drones at different times and different locations.
➤ Any combination of the above.

Make the scenarios concrete, with geographic locations and time stamps.

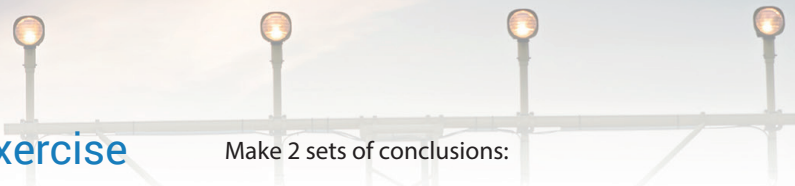Define the means of communication used during the exercise.

Who might be involved in decisions to close the airspace/airport/runway? Invite a representative from all those organisations, this could involve:

➤ Air Navigation Service Providers
➤ Airport Operator
➤ Home based aircraft/helicopter operators
➤ Airport Police
➤ Local Police
➤ Civil Aviation Authority
➤ National security forces or military (depending on the scenario)
➤ Any other relevant stakeholders (e.g. drone detection manufacturer or operator.)

Ask the participating organisations to send off-duty operational staff to the exercise.

Make sure to invite (subject matter expert) observers as well to provide feedback after the exercise.

CONSORTIUM COORDINATOR
sesar
DEPLOYMENT MANAGER

FOUNDING MEMBER
sesar
JOINT UNDERTAKING

NETWORK MANAGER

Running the tabletop exercise

There are 2 ways to run the exercise:

➤ Realtime, representatives in separate rooms (as it would be in an actual incident), contact by phone, observers in each room.
  → Provides feedback on a realistic setting to test the LOP on response to a drone sighting/detection.
➤ Group exercise in a shared room, with room for discussion on steps to take and the possibility to 'go back in time' and try out different decisions and their impact on the system.
  → Helpful tool in drafting/improving the LOP on response to a drone sighting/detection.

Pick one of the created scenarios and initiate the drone report/drone detection.

Follow all steps as you would usually take them and allow response times according to the normal workflow.

If you feel the scenario needs adaptation along the way to better facilitate the learning objectives, feel free to simplify or complicate the matters along the way.

Try to avoid using staff with operational or standby duties at the time of the tabletop exercise. If you need to do so anyway, always start and end your exercise-related communications with "EXERCISE, EXERCISE, EXERCISE". In case of an actual incident or crisis during the exercise, use "NO PLAY, NO PLAY, NO PLAY".

Debriefing the exercise

Make sure to ask somebody to take notes of the debrief.

Allow the participants to share their thoughts and experiences in chronological order. After each step, allow the observers to share their view.

Make 2 sets of conclusions:

➤ Potential improvements to the LOP.
➤ Improvement in practical execution and coordination.

Either run a second/third/fourth/… exercise right away or plan the next exercise day at the end of the session. Allow at least 1 exercise per year. If you don't have a robust LOP yet, it is recommended to organize exercises more often.

Set up a data pool for further decision-making and investigation.

Collaborate with participants to develop an action plan based on the exercise findings. Identify specific measures to strengthen airport security, response procedures, or training programs. Assign responsible parties and establish timelines for implementing the identified improvements.

Remember, a tabletop exercise is a learning opportunity, so foster a collaborative environment where participants can openly discuss challenges, share knowledge, and enhance their preparedness for drone incursions at the airport. This will ensure that when a real incident occurs all parties will be aware of the responsibilities and activities required to reduce the impact of the drone incident. Remember the tabletop exercise is not meant for teams to fail but to enhance the participants of the different strategies, priorities and command structures that may impact a drone incursion at an airport.

Disclaimer

This document is published by the EUROCONTROL Drones Impact on Network Operational Safety Working Group and aims to support Operational Stakeholders with mitigating the risks of unauthorized drones in the vicinity of flight operations. The suggestions and recommendations are solely based on expert judgement and experience. Local circumstances may require a different set up. Please send comments and suggestions to: stijn.de-graaff@eurocontrol.int.