



*International Civil Aviation Organization*

**MIDANPIRG Meteorology Sub-Group  
Eighth Meeting (MET SG/8)**

*(Cairo, Egypt, 1-3 July 2019)*

**Agenda Item 4.2: Review implementation of the Meteorological Advisories and Warnings**

**VOLCANIC ASH EXERCISE IN NOVEMBER 2019 CALLED VOLCEX19**

*(Presented by the Secretariat)*

**SUMMARY**

This paper provides an overview of the EUR/NAT volcanic ash exercise that will be conducted in November 2019 called VOLCEX19.

Action by the meeting is at paragraph 3.

**1. INTRODUCTION**

1.1 The meeting may recall that the ICAO MID Doc 003 – *MID Region ATM Contingency Plan* (Edition April, 2016) contains in Chapter 5 the MID Region ATM Volcanic Ash Contingency Plan (VACP). This plan was developed based on the VACP prepared by the International Volcanic Ash Task Force (IVATF) in August 2012. The MID ATM VACP sets out standardised guidelines and procedures for the provision of information to airlines and en-route aircraft before and during a volcanic eruption. The meeting may also recall that the MID Region receives volcanic ash advisories and volcanic ash advisories in graphic form from the Volcanic Ash Advisory Centre (VAAC) Toulouse.

**2. DISCUSSION**

2.1 The meeting may note that a volcanic ash exercise on 20 November 2019 (0800-1600 UTC) will simulate a volcano eruption of Vesuvius, Italy. The simulated ash cloud will impact the eastern Mediterranean and specifically the following Flight Information Regions (FIRs) in the MID Region: (**Amman, Baghdad, Beirut, Cairo, Damascus, Jeddah, Tehran and Tripoli**). The exercise scenario provided by VAAC Toulouse is provided in **Appendix A**.

2.2 This scenario is of interest to stakeholders in that operators expect States to conform to the MID ATM VACP and in particular, practice accepting the Safety Risk Assessment (SRA) approach. Operators therefore decide whether or not to fly into an area of observed or forecast volcanic ash cloud, which is in compliance with PANS-ATM section 15.8.

2.3 In order to test this approach, the FIRs that will be directly impacted as listed in paragraph 2.1 as well as the border FIRs (**Bahrain, Emirates, Khartoum, Muscat, Qatar and Sana'a**) are invited to participate in this exercise in order to be better prepared for a real volcanic ash event. Border FIRs are important in a crisis event since operators may choose to fly in an area not contaminated with volcanic ash placing more aircraft in the border FIRs. If demand exceeds capacity, Air Traffic Flow Management (ATFM) measures may need to be applied.

2.4 Expected participants include Airline Operators, Regulators, Air Navigation Service Providers (ANSP), Air Traffic Flow Management (ATFM), Meteorological Watch Offices (MWO) and NOTAM Offices.

2.5 The meeting may also note that there will be a VOLCEX19 Preparatory Workshop from 2 (beginning 1400 CET) to 3 October 2019 at the ICAO EUR/NAT Regional Office in Paris. This workshop not only reviews the VACP for the EUR/NAT Regions, but reviews the VOLCEX19 Exercise Directive and roles of participants. Therefore, this workshop will not be restrictive to the EUR/NAT Regions.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the contents in this paper;
- b) participate in VOLCEX19, and if necessary, the VOLCEX19 Preparatory Workshop in order to exercise the MID ATM VACP.

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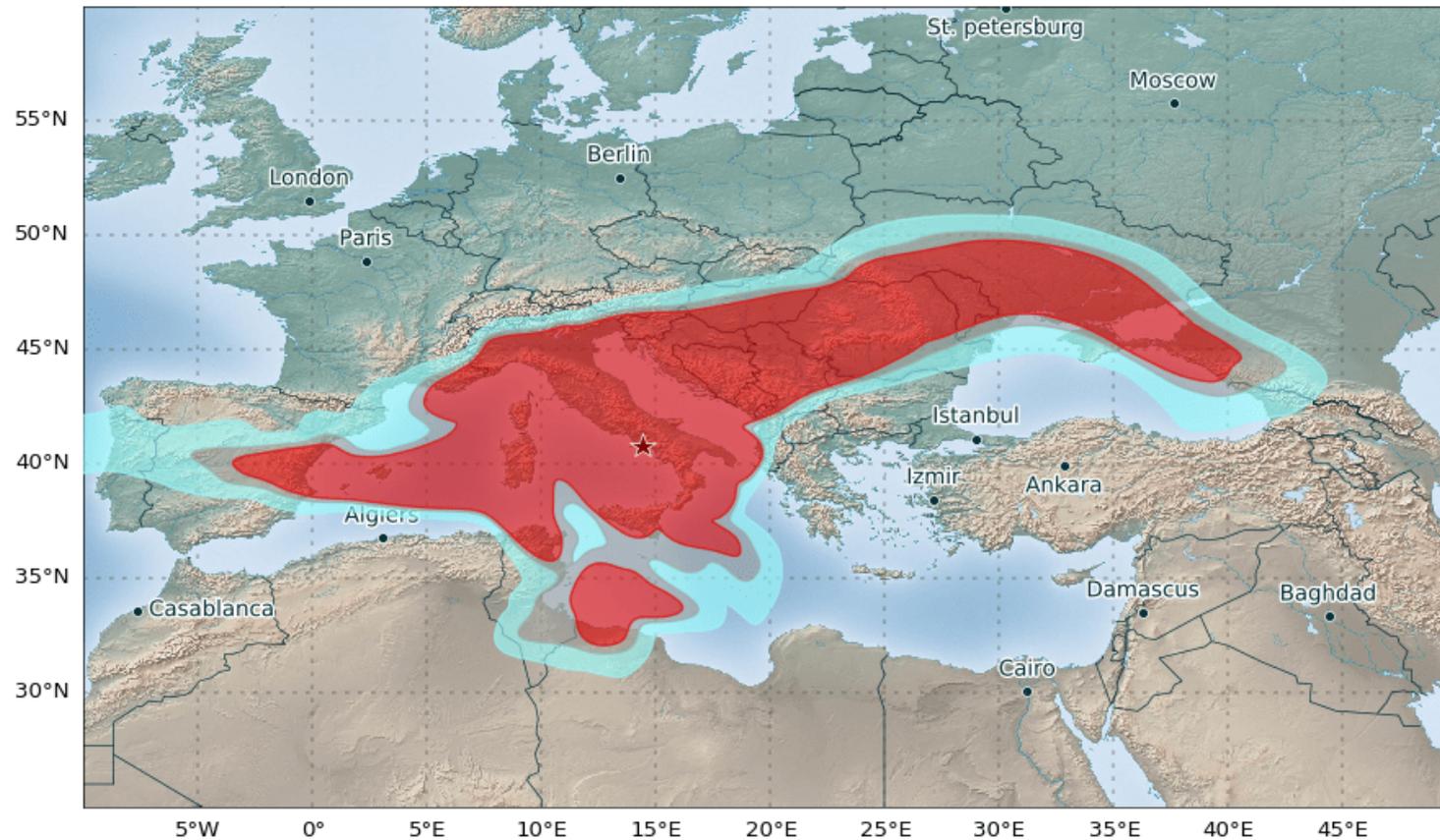
APPENDIX A

**volcex19 - ash concentration from SFC to FL200**  
valid from 2019/11/20 12:00 UTC to 2019/11/20 18:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



This is a guidance product, supplemental to the official VAAC Toulouse Volcanic Ash Advisory and Volcanic Ash Graphic products.  
All concentrations are subject to a level of uncertainty relative to errors in the estimation of the eruption strength.

low medium high

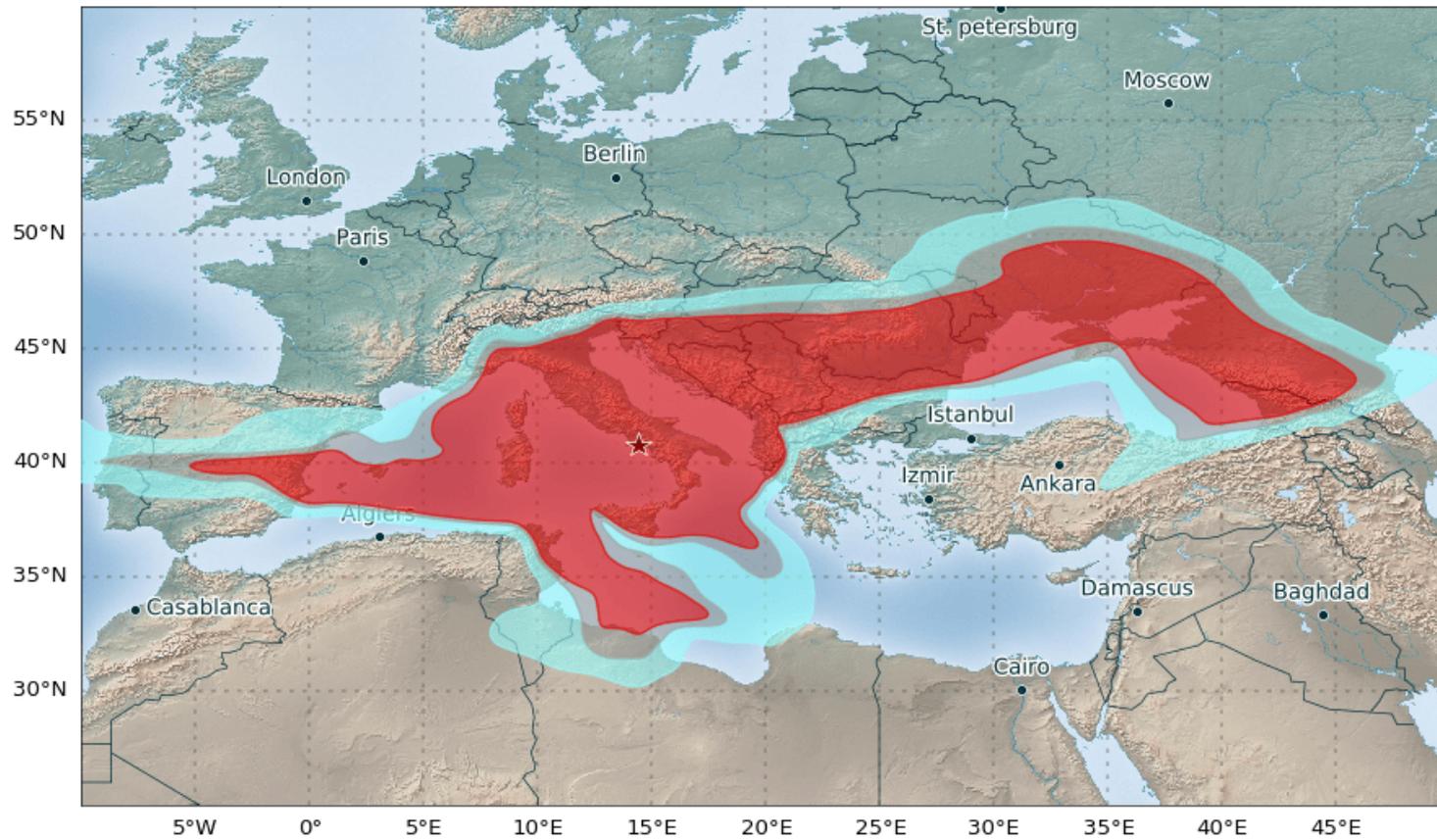


**volcex19 - ash concentration from SFC to FL200**  
valid from 2019/11/20 18:00 UTC to 2019/11/21 00:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

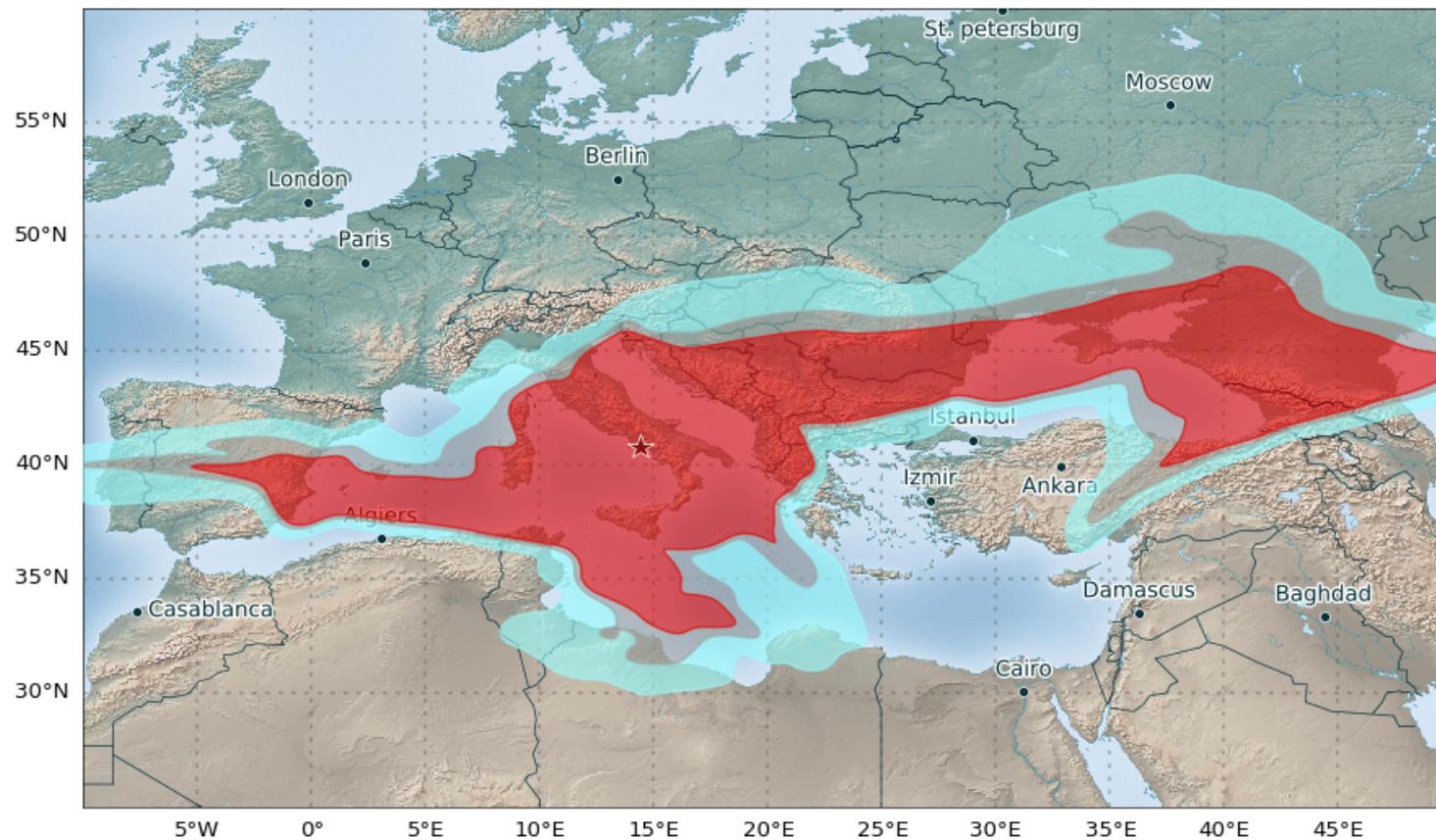


**volcex19 - ash concentration from SFC to FL200**  
valid from 2019/11/21 00:00 UTC to 2019/11/21 06:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

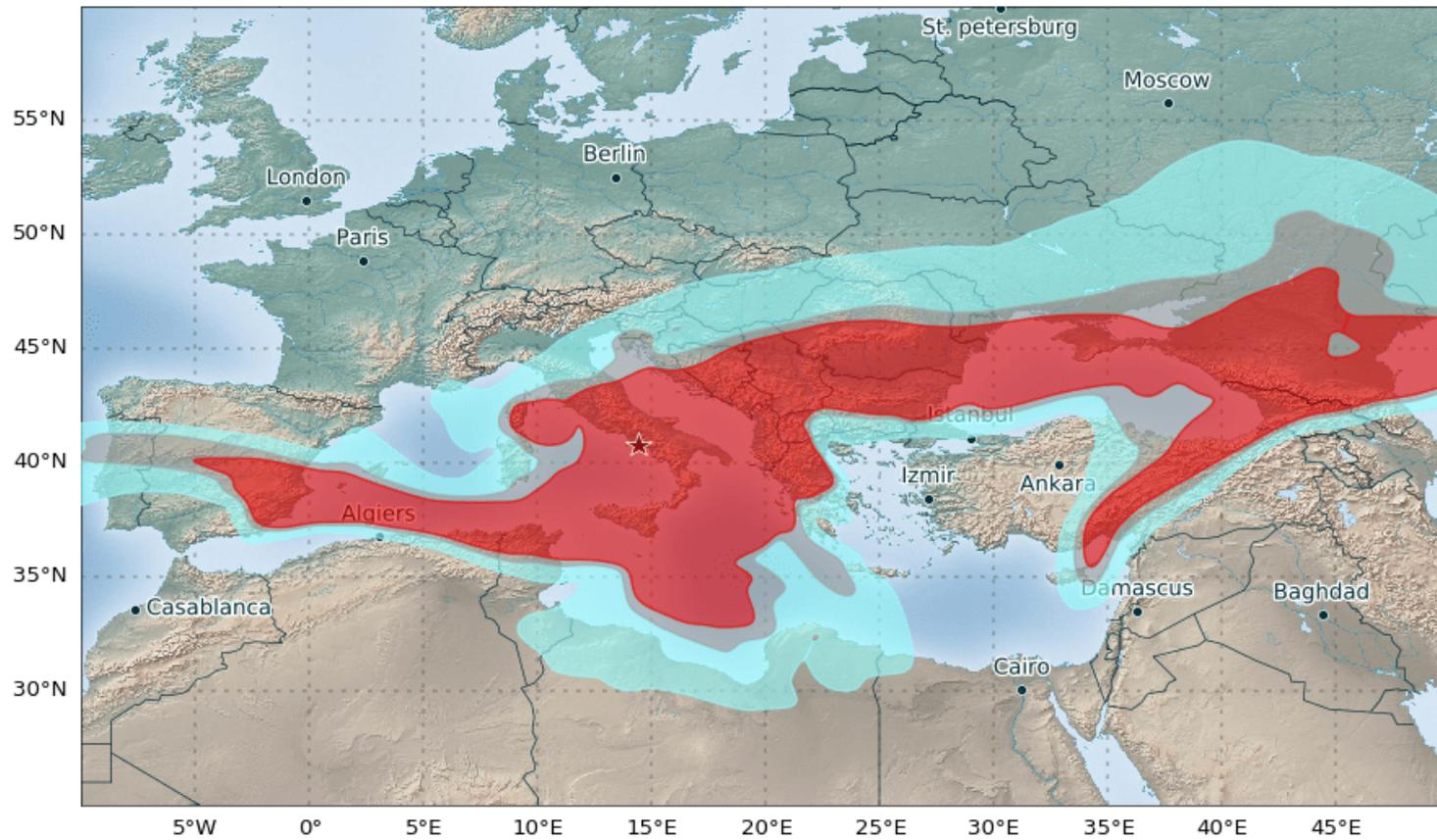


**volcex19 - ash concentration from SFC to FL200**  
valid from 2019/11/21 06:00 UTC to 2019/11/21 12:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

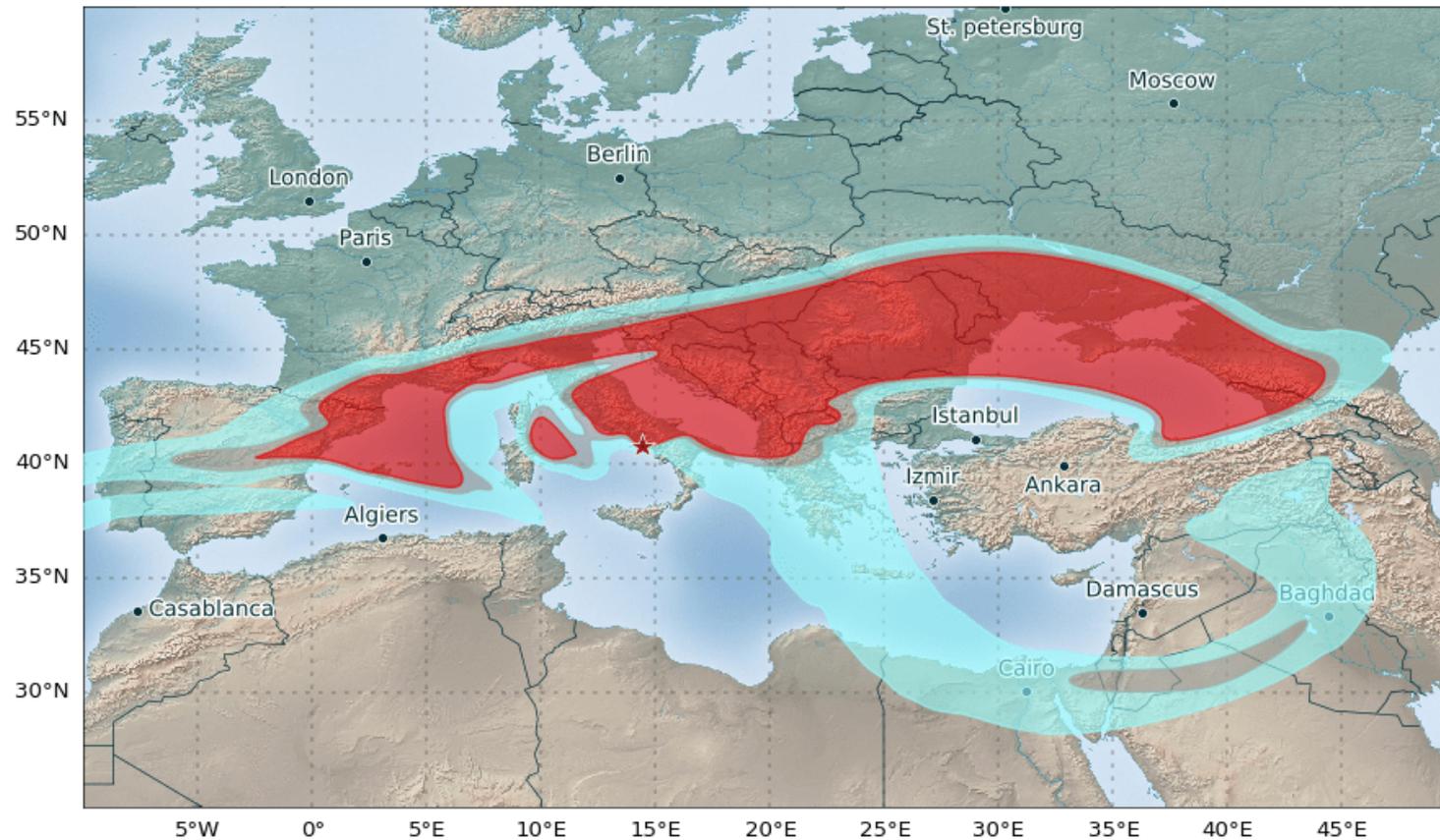


**volcex19 - ash concentration from FL200 to FL350**  
valid from 2019/11/20 12:00 UTC to 2019/11/20 18:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

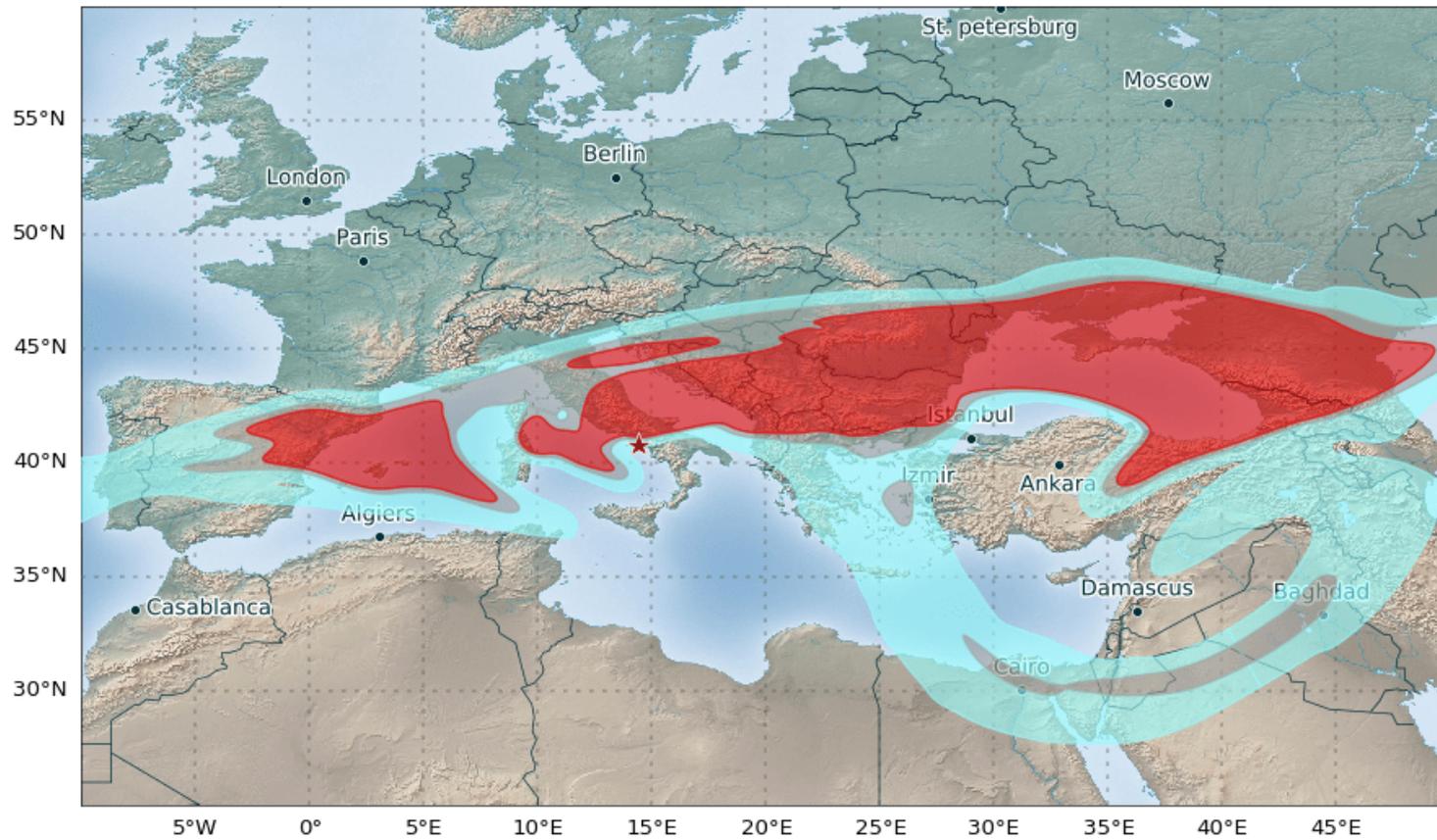


**volcex19 - ash concentration from FL200 to FL350**  
valid from 2019/11/20 18:00 UTC to 2019/11/21 00:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

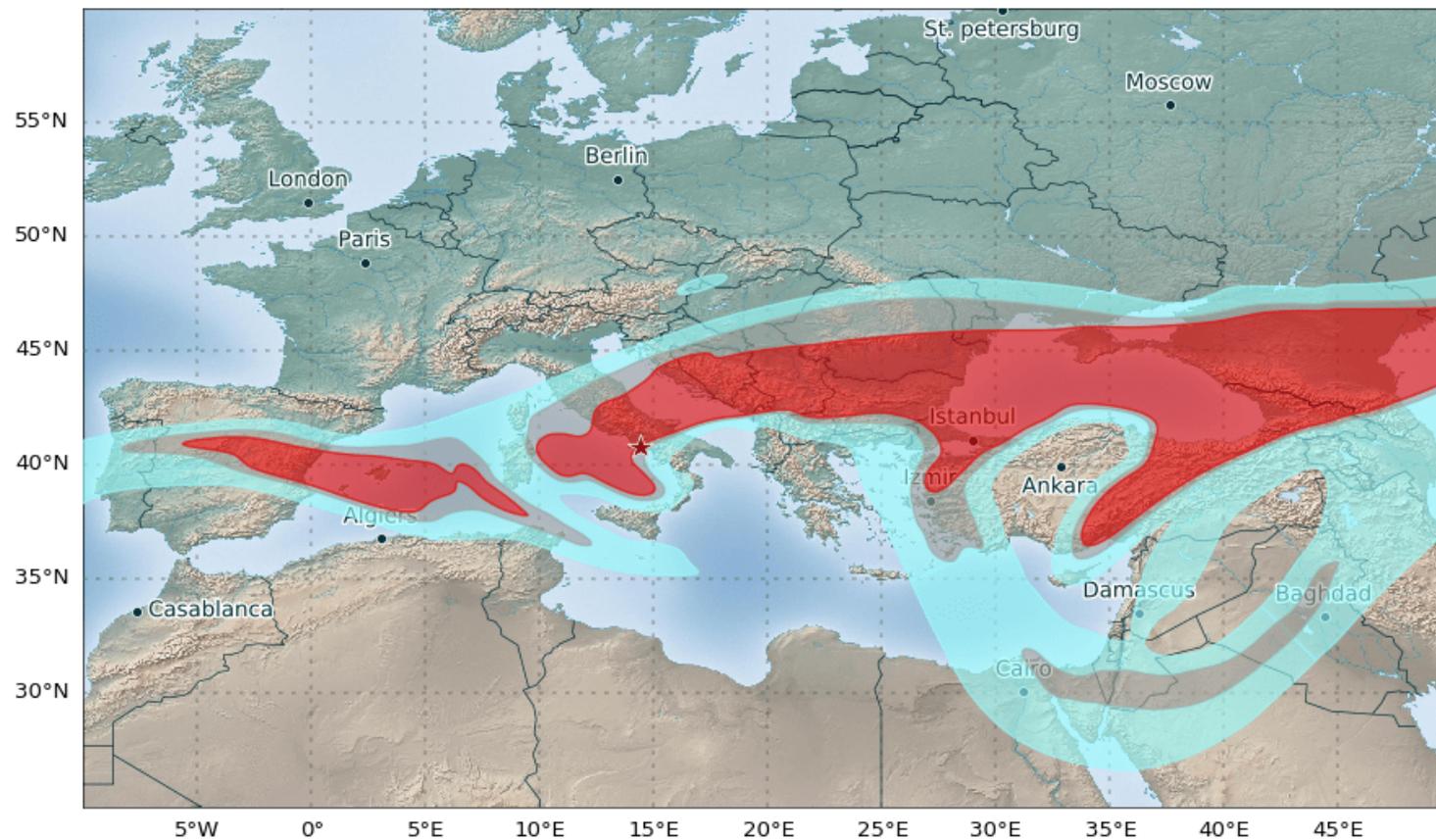


**volcex19 - ash concentration from FL200 to FL350**  
valid from 2019/11/21 00:00 UTC to 2019/11/21 06:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

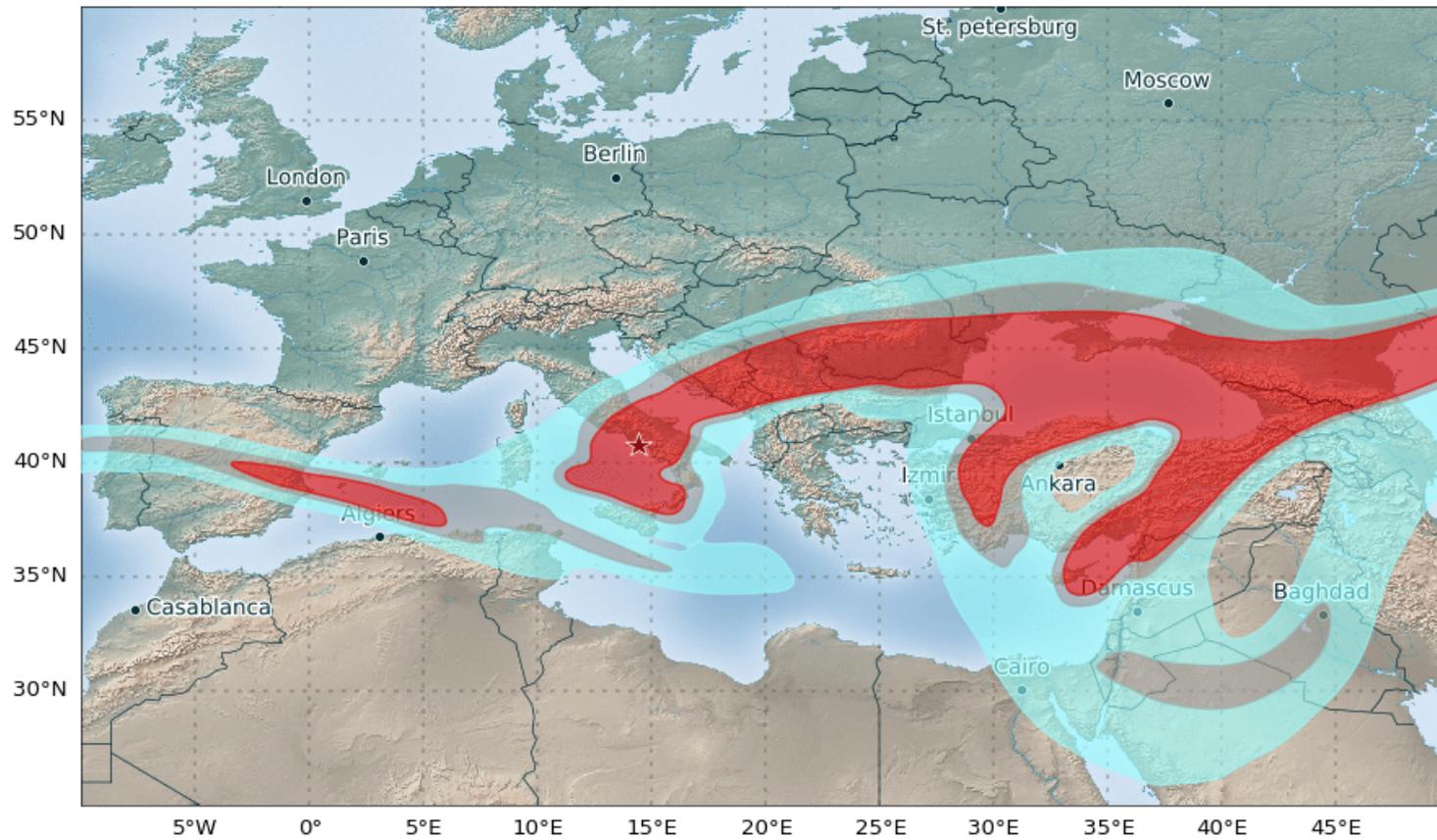


**volcex19 - ash concentration from FL200 to FL350**  
valid from 2019/11/21 06:00 UTC to 2019/11/21 12:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

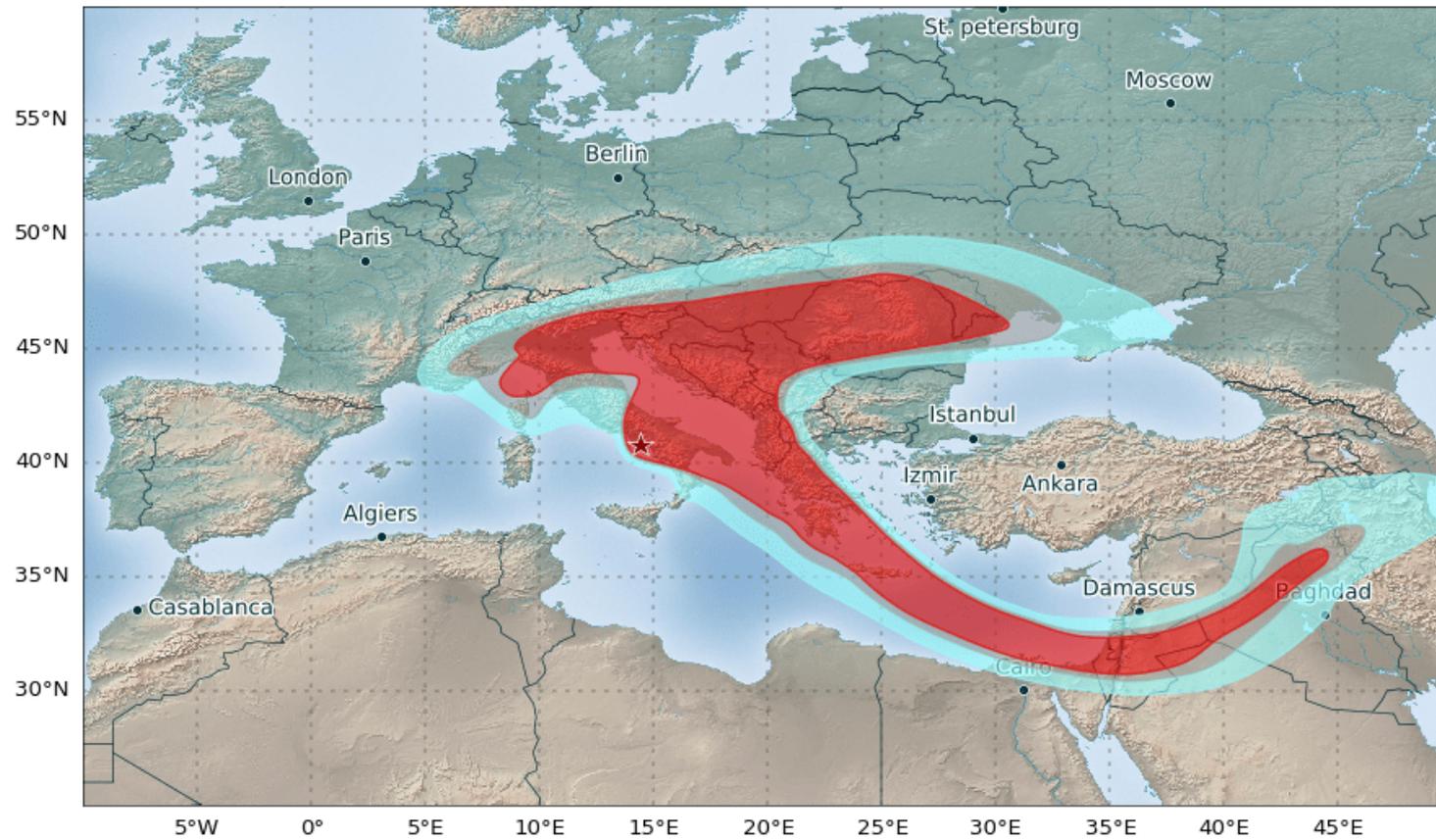


**volcex19 - ash concentration from FL350 to FL550**  
valid from 2019/11/20 06:00 UTC to 2019/11/20 12:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

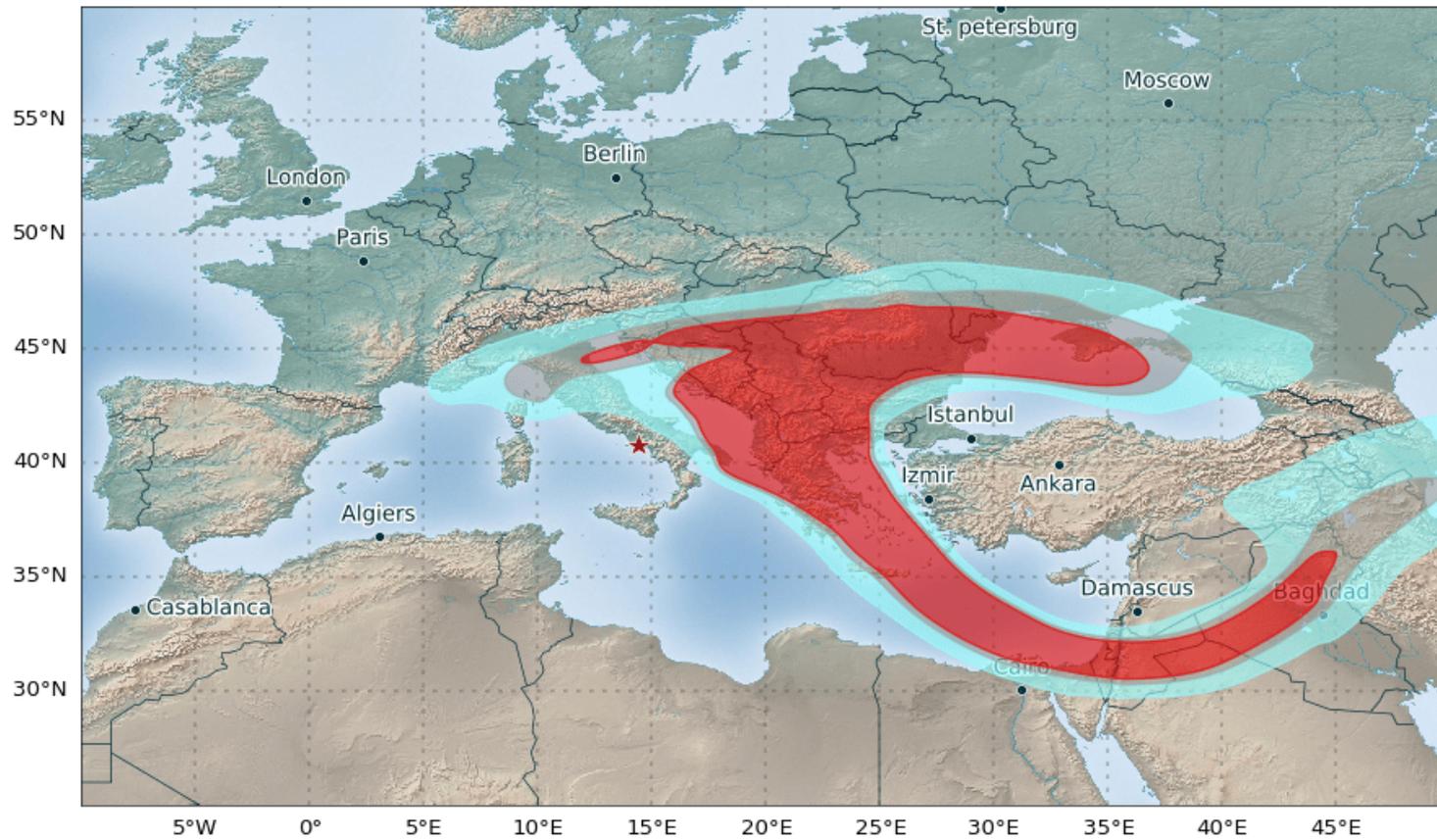


**volcex19 - ash concentration from FL350 to FL550**  
valid from 2019/11/20 12:00 UTC to 2019/11/20 18:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

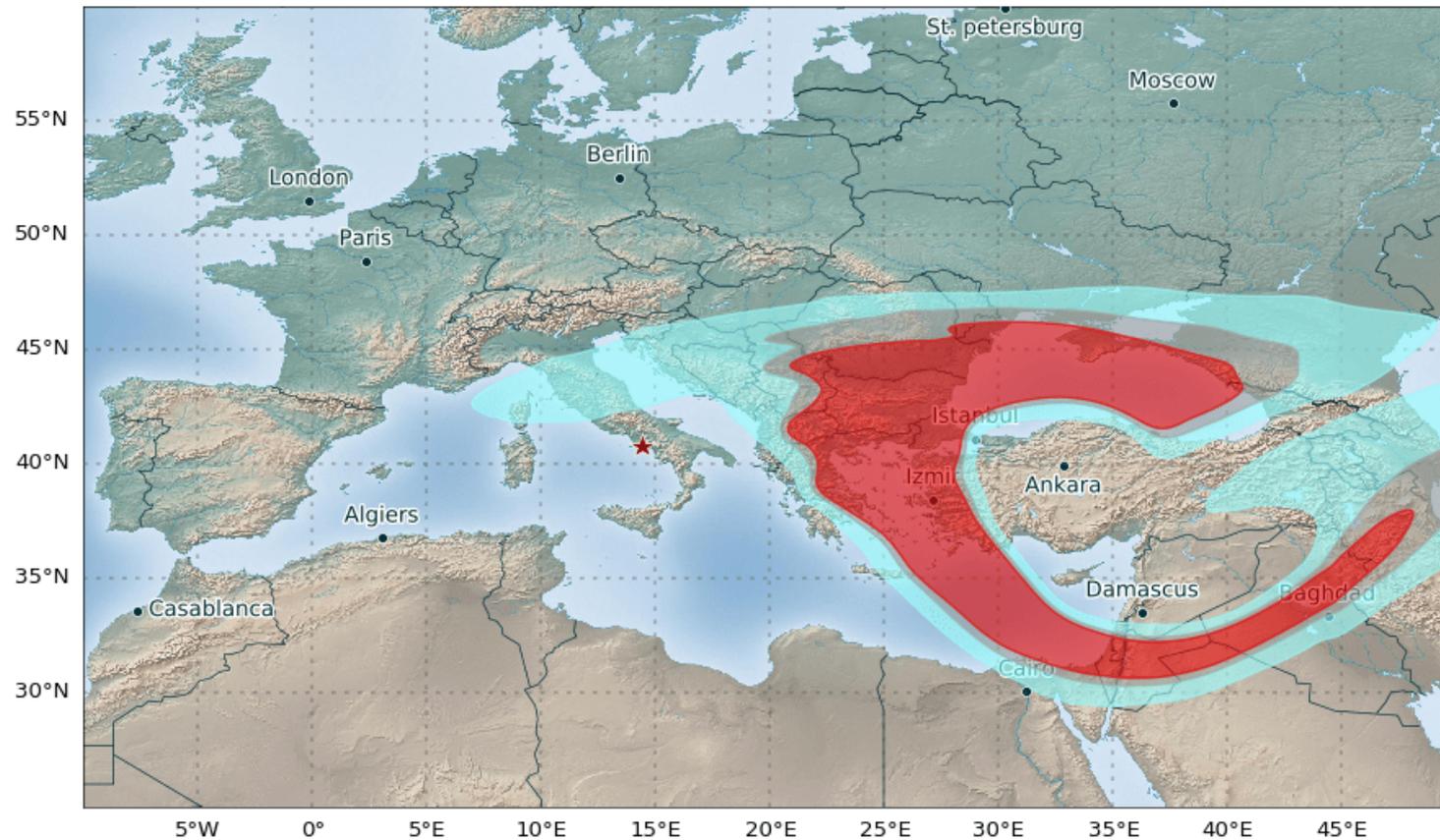


**volcex19 - ash concentration from FL350 to FL550**  
valid from 2019/11/20 18:00 UTC to 2019/11/21 00:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

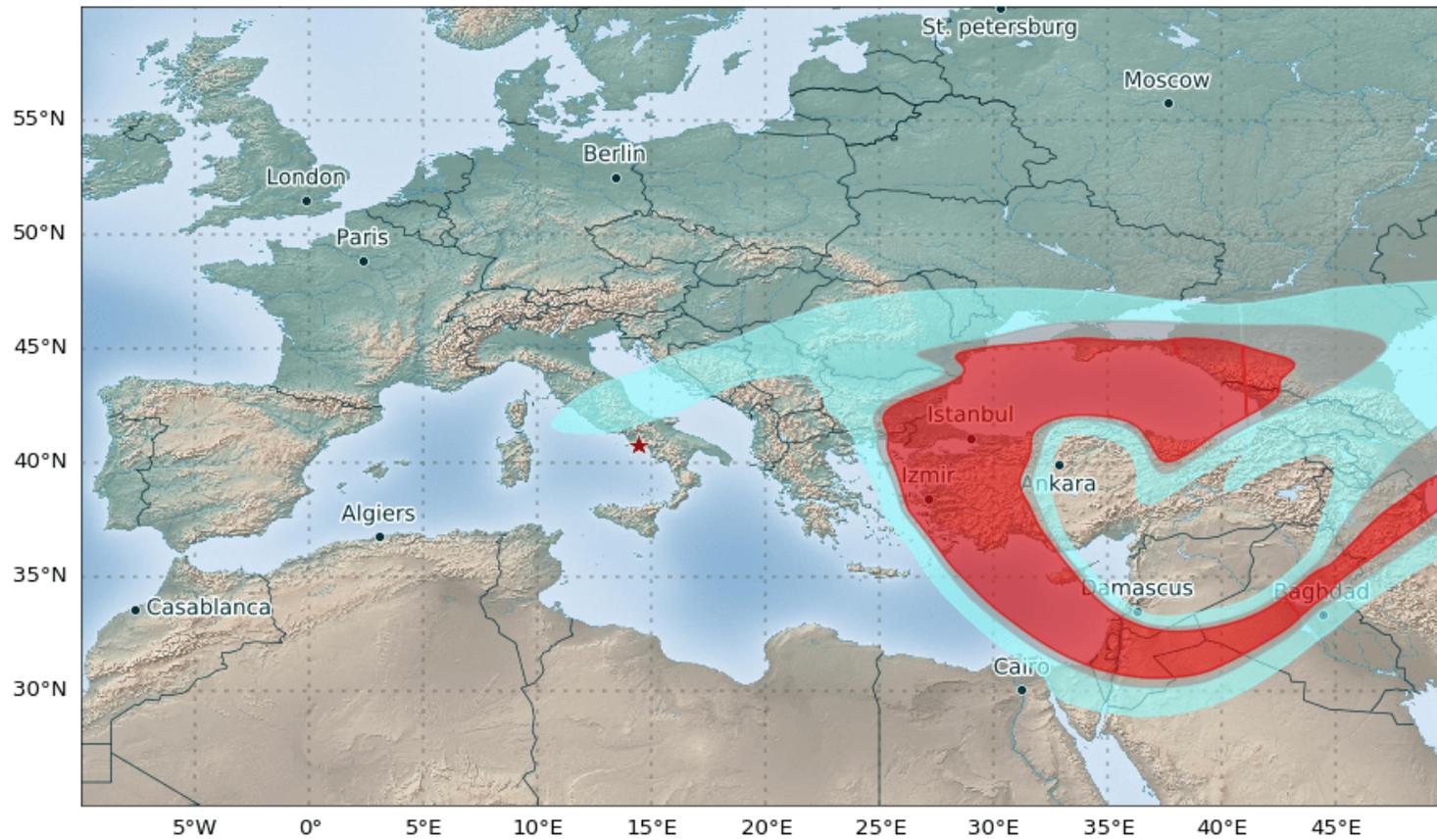


**volcex19 - ash concentration from FL350 to FL550**  
valid from 2019/11/21 00:00 UTC to 2019/11/21 06:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high

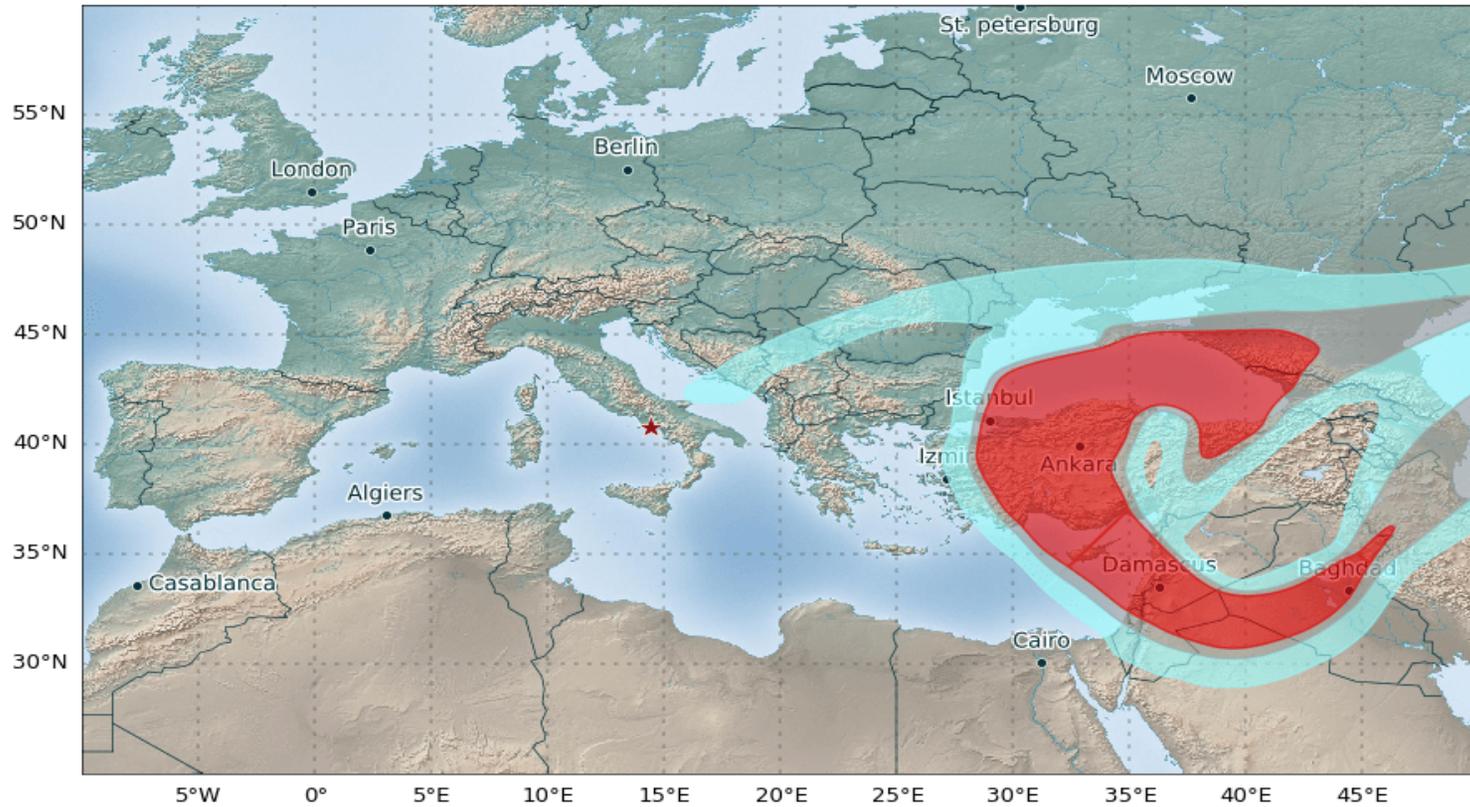


**volcex19 - ash concentration from FL350 to FL550**  
valid from 2019/11/21 06:00 UTC to 2019/11/21 12:00 UTC  
**EXERCISE !!! EXERCISE !!! EXERCISE !!!**



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low medium high



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