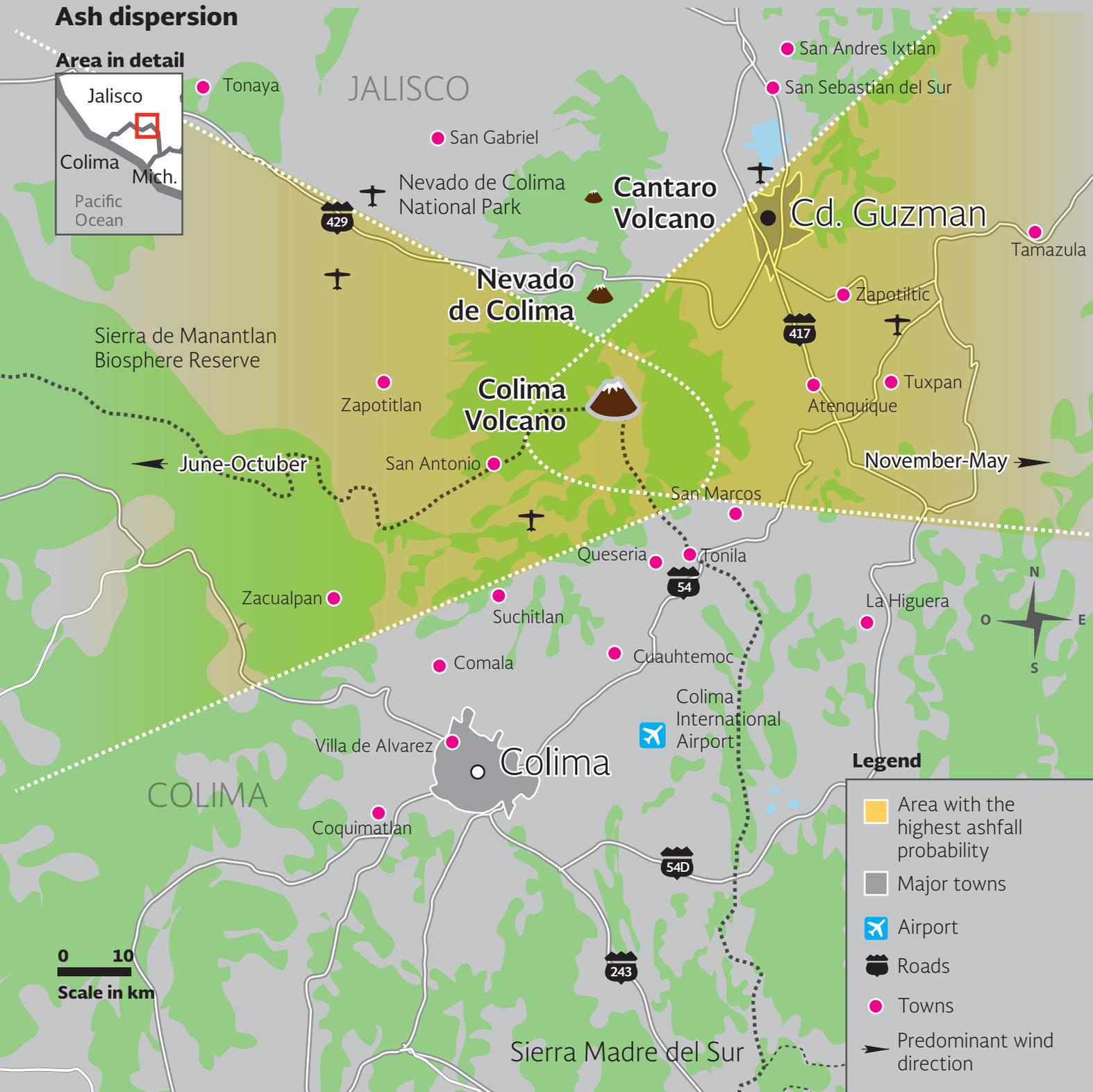


COLIMA VOLCANO

Ash dispersion and ballistic projectiles

Ash dispersion

Area in detail



What are they?

During explosive eruptions, rock fragments less than 2 mm in diameter are dispersed by the prevailing winds and will fall as a rain of dust. Historically it has reached distances of 30 to 50 km, and thicknesses of 10 m within a 7 km radius

Ballistic products are rock fragments bigger than 64 mm in diameter, expelled by the volcano during explosions, with trajectories similar to a cannon ball

Area where ballistic products up to 50 cm in diameter might fall



Legend

- Area of ballistic product falls (up to 5 km)
- Landing strip

Learn more

National Center for Disasters Prevention
www.gob.mx/cenapred

Source: Adapted from the Hazards map of Colima volcano made by the University of Colima



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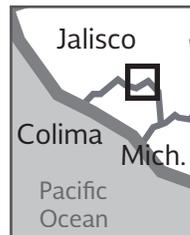
CENAPRED
 CENTRO NACIONAL DE PREVENCIÓN DE DESASTRES



About the Colima Volcano

Ash dispersion and ballistic products

Colima Volcano



Location

26 km southwest of Ciudad Guzman, Jalisco, and 32 km northeast of the city of Colima

Elevation
3,860

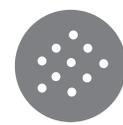
meters above sea level

Colima volcano is considered the most active in Mexico

Ashfall characteristics

What is tephra?

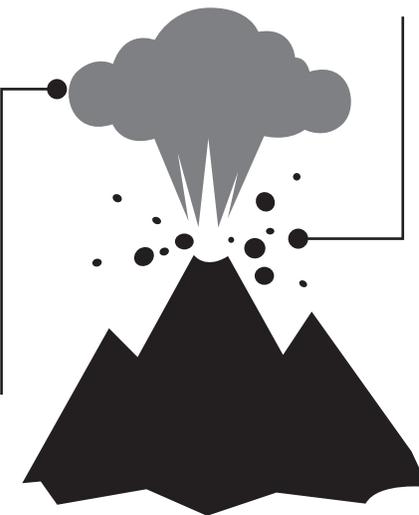
It is composed of:



Volcanic ash: fragments of volcanic material (pyroclasts) with less than 2 mm in diameter



Lapilli: fragments between 2 and 64 mm in diameter



Ballistic products



Are caused by explosions at the crater. Rocks are expelled at high speed and then fall on the ground



As they fall, they can damage infrastructure and people



If the ballistic products fall at high temperature they can cause forest fires and burn houses

Ash dispersion scale

Minor eruption tens of kilometers

Mayor eruption hundreds of kilometers

Activity in the last 100 years:

1913

Ash reached Guadalajara, Saltillo and Coahuila. The eruption changed the top of the volcano

1955

1955

Debris flows reached the town of Atenquique, located 18 km away

Lava flowed from the crater towards the north flank

1975

Lava flows emplaced over the eastern flank

1991

Effusive activity accompanied by dome collapse

1997

Several earthquakes noticed, dome fracture

1998

Eruption that caused a first dome on the southwest portion of the crater

1999

Explosion that produced an ash column 7 km high and pyroclastic flows 4.5 km long

2000

Lahars affected the town of La Becerrera and the Montegrande ravine

2000-2003

Growth of a dome, with pyroclastic flows and ashfall to the southeast, south and east

2004

Lava flows that reached between 2 and 5 km in length

2008-2012

Dome growth

2014

Numerous explosions, new dome growth, lava flows towards the west and southeast