

**A Potential Path to an Accident  
Involving US and Russian Strategic Nuclear Forces**

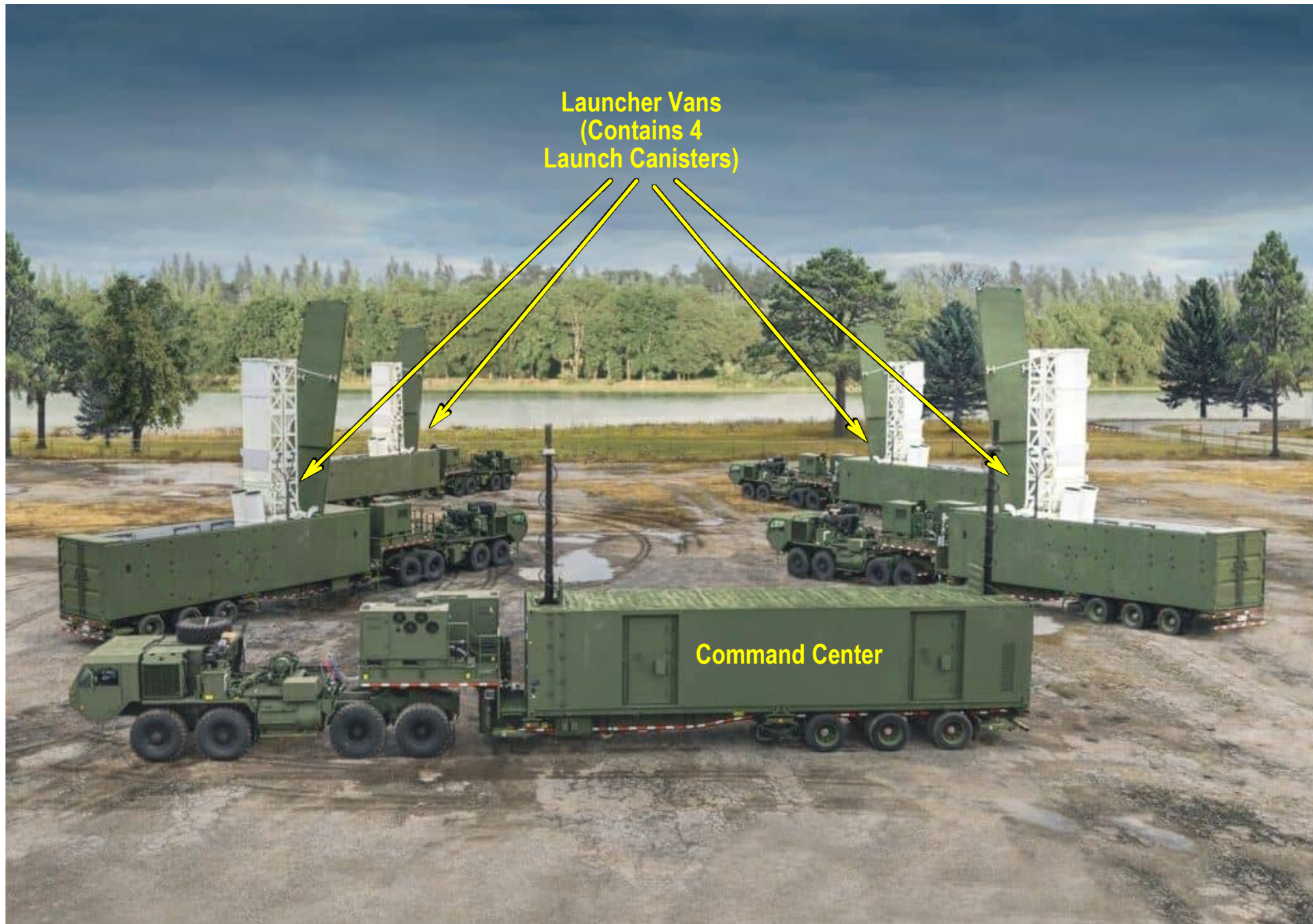
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**The US-German Typhon Deployment  
A Guarantee to Make Europe an  
Ignition Point for Global Nuclear War**

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Presentation on  
October 2, 2024  
Theodore A. Postol  
Professor Emeritus of Science, Technology, and National Security Policy  
Massachusetts Institute of Technology  
postol@mit.edu; 617 543-7646

## 40 Foot Van Designed to Hold Four Aegis Missile Launch Canisters



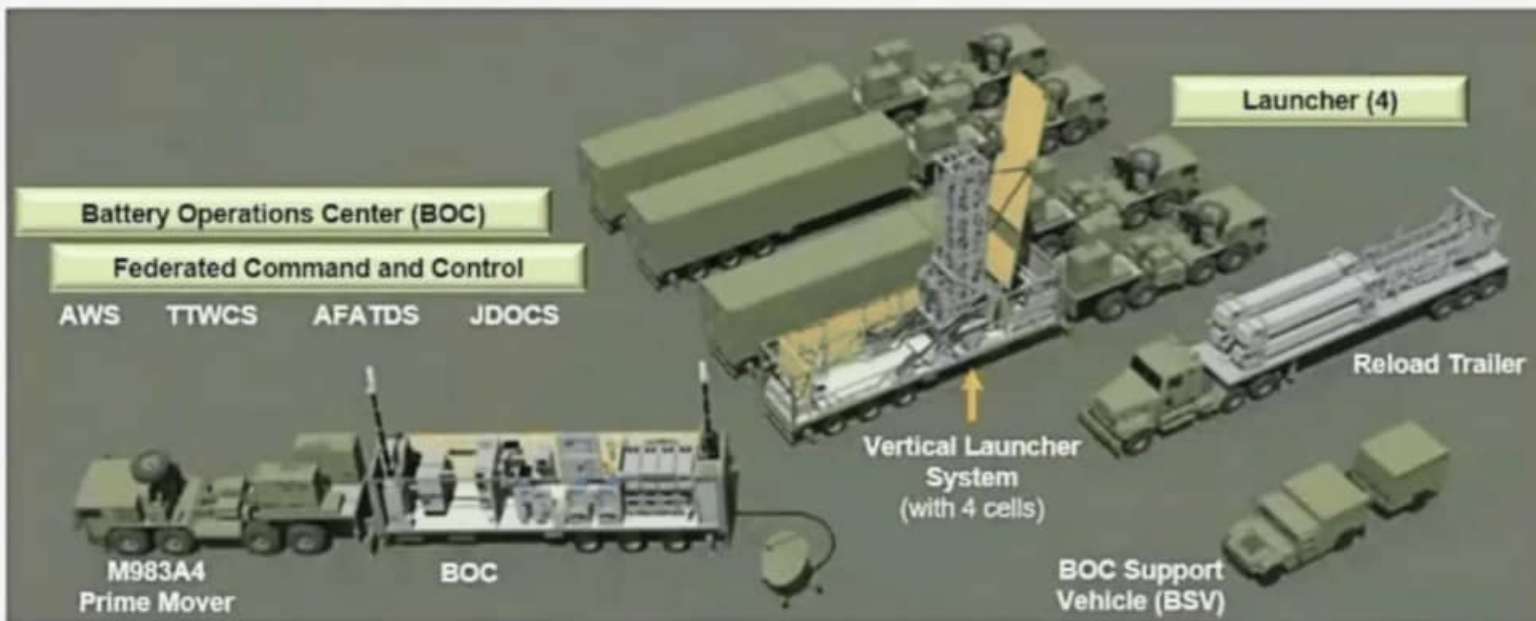


# “Typhon”: What We Are Delivering

WE DELIVER TO SOLDIERS

## Mid-Range Capability (MRC)

**Mission:** Deliver an initial prototype MRC NLT 4QFY23 at the Battery Level as part of the Long Range Fires Battalion in support of Multi-Domain Operations



SM-6

### Future Capability

Tomahawk  
SM-6



Tomahawk

## Transition Team

The Embedded Transition Team plans, programs, and synchronizes all activities associated with the development and sustainment of the MRC Program of Record (PoR)

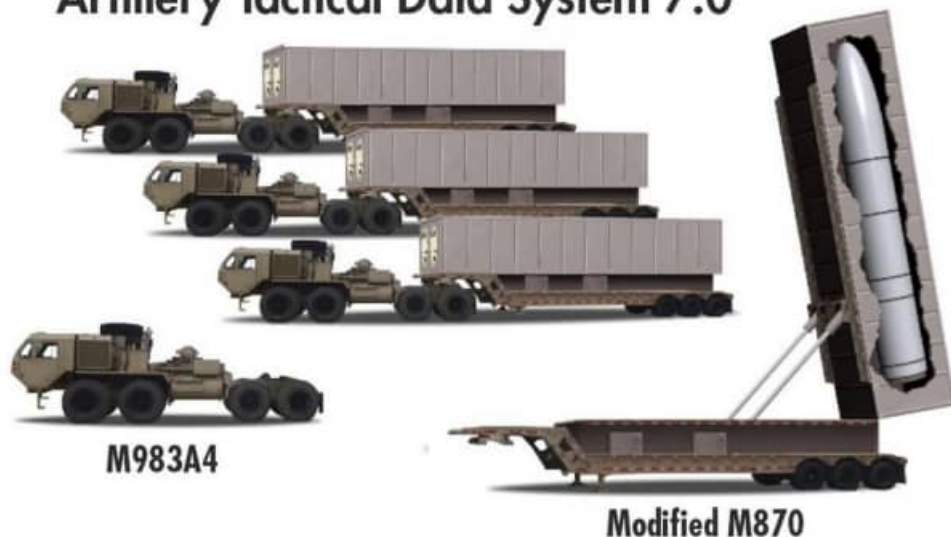
# 100 kt Warheads from the Trident II Missile Submarine Launched Ballistic Missile System are Ubiquitous in the US Nuclear Arsenal and Are the Natural Choice for the New Typhar Ballistic Missiles



## Battery Operations Center



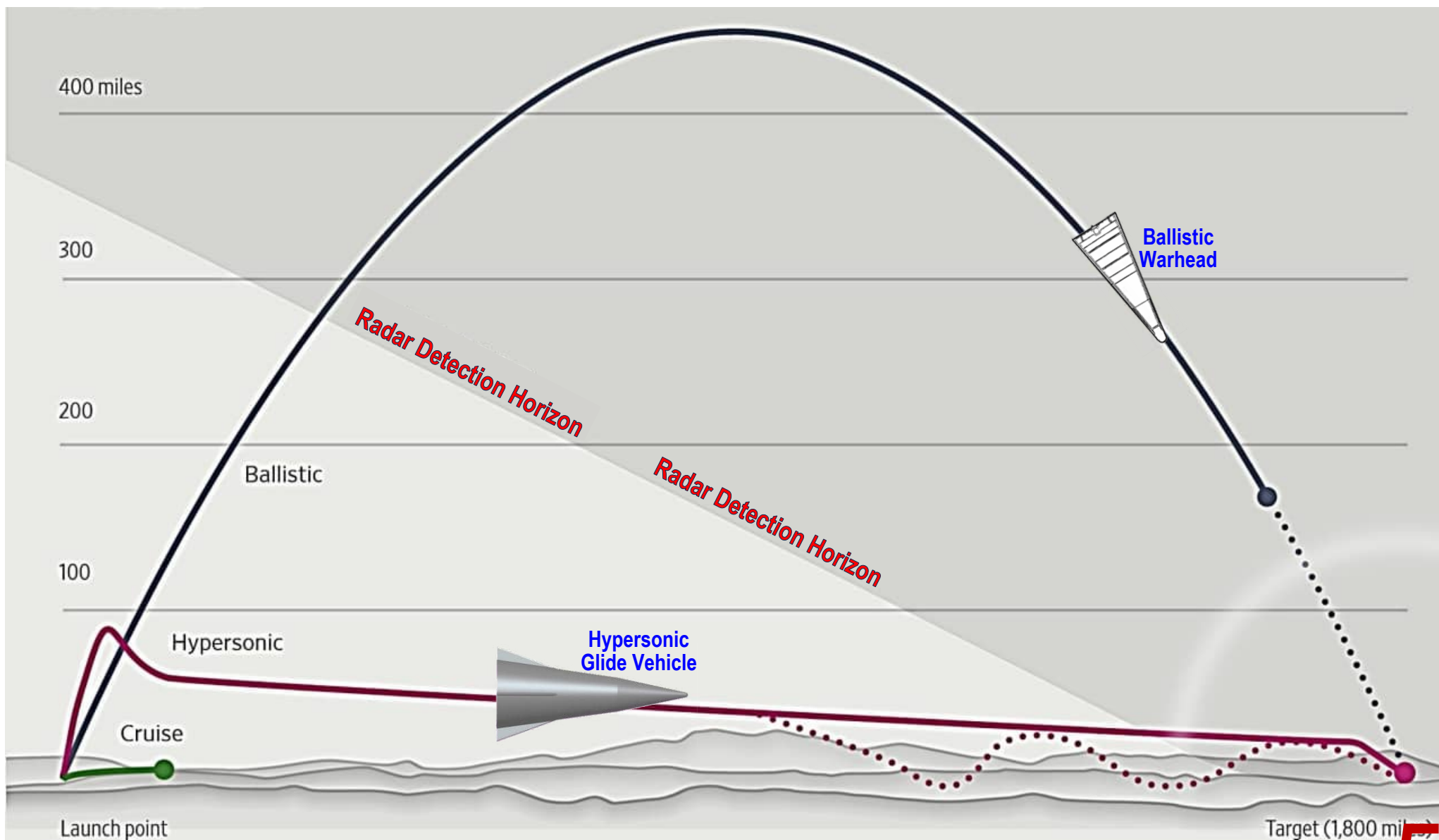
Block 1 integration: Advanced Field  
Artillery Tactical Data System 7.0



4 transporter erector launchers (TEL)  
2 rounds per TEL

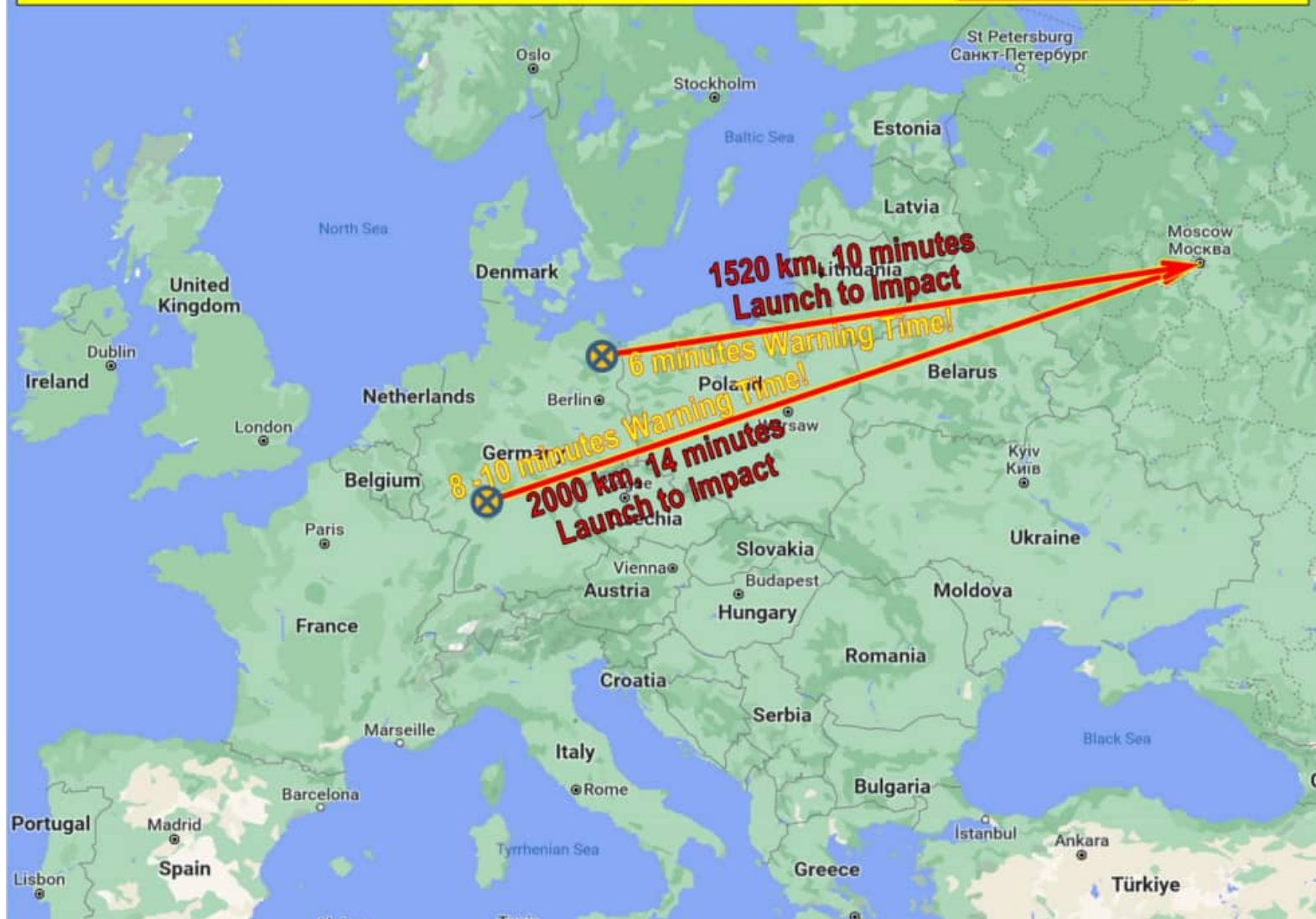
# The Planned Typhan Hyperson Missile System Will Very Substantially Reduce Radar Early Warning Times for Russia – Which Will Have to Depend on Radars to Detect an Attack

Moscow Would Have Perhaps 3 to 4 Minutes Warning- of a Nuclear Attack from German Territory

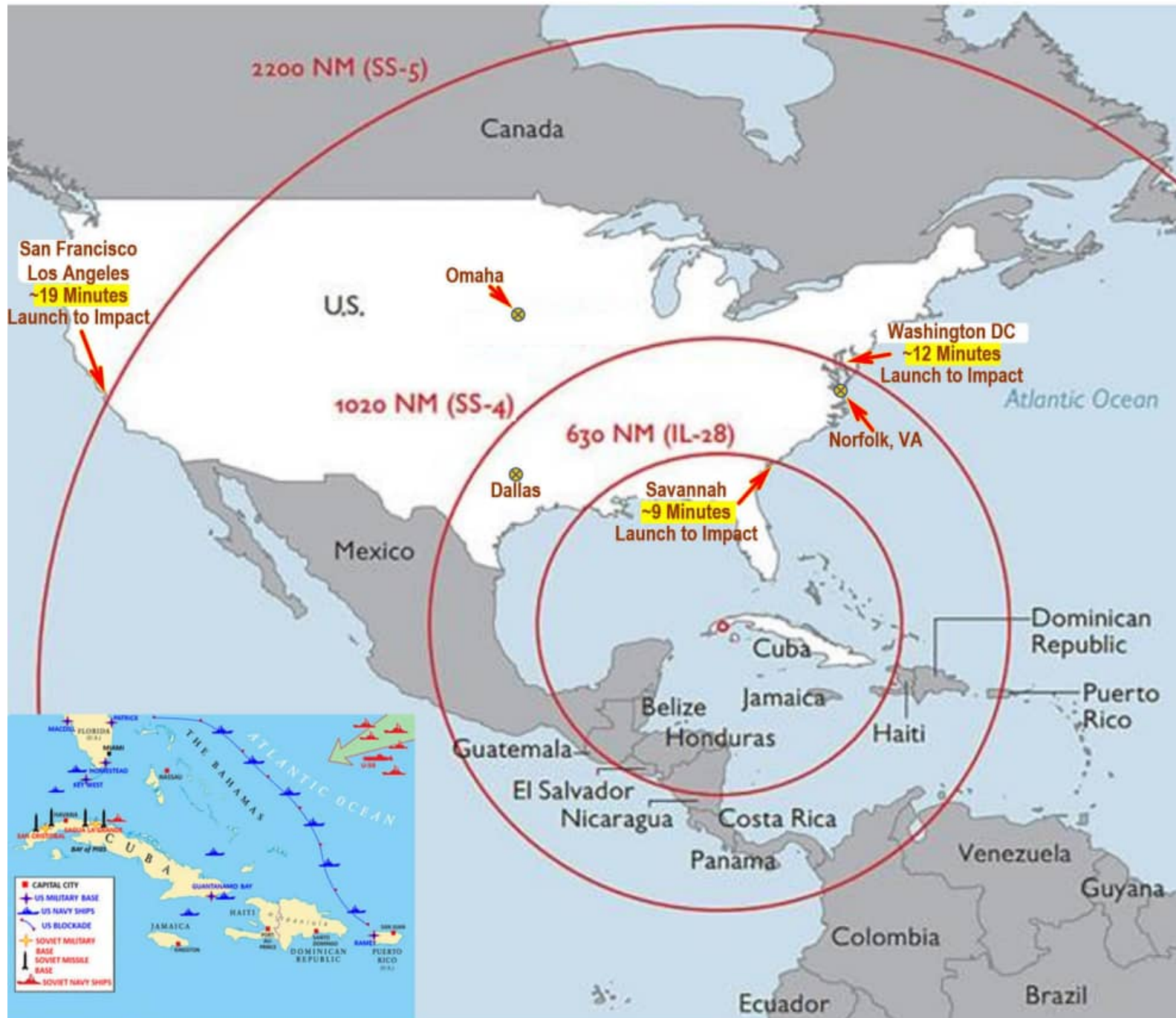


# Timelines for Russian Nuclear Strikes Against Moscow from Germany in 2026

**Extremely Short Warning Times for NATO Nuclear Attacks on Moscow!**  
**Radars in Moscow Could Only Detect an Incoming NATO Nuclear Attack for Times As Short as 6 Minutes!**



# Timelines for Russian Nuclear Strikes Against Washington DC and Other US Cities from Cuba in 1962



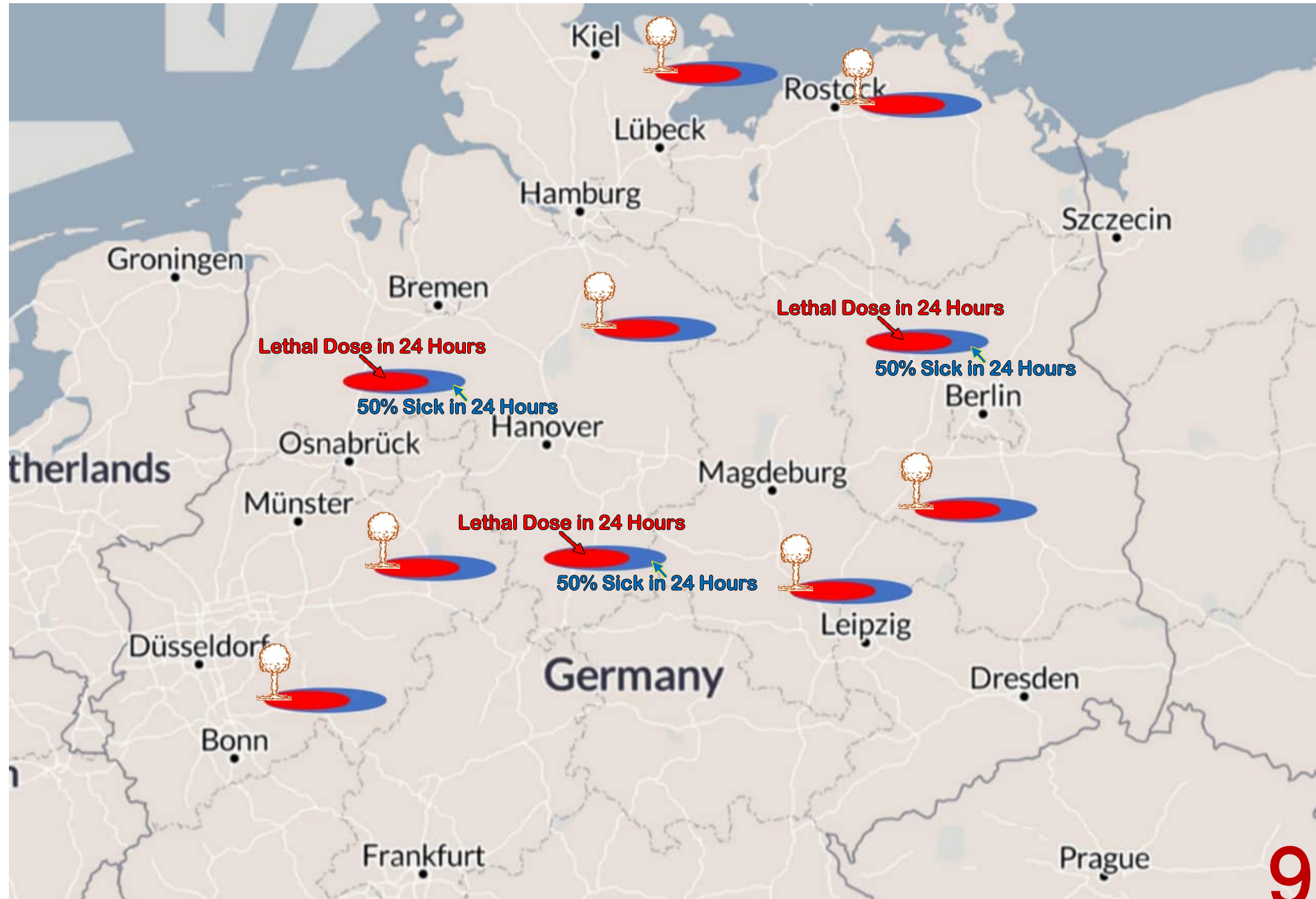
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**Russian Tactical Nuclear Attacks  
on German/US Tactical Nuclear  
Missile Deployments  
and Nuclear Command Centers**

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# Potential Fallout Patterns from Very Limited Russian Tactical Nuclear Missile Counterstrikes

Notes: Weapon Yields ~ 75 kt (Cited by Putin); 20 mph Winds; 50% Fission Yields



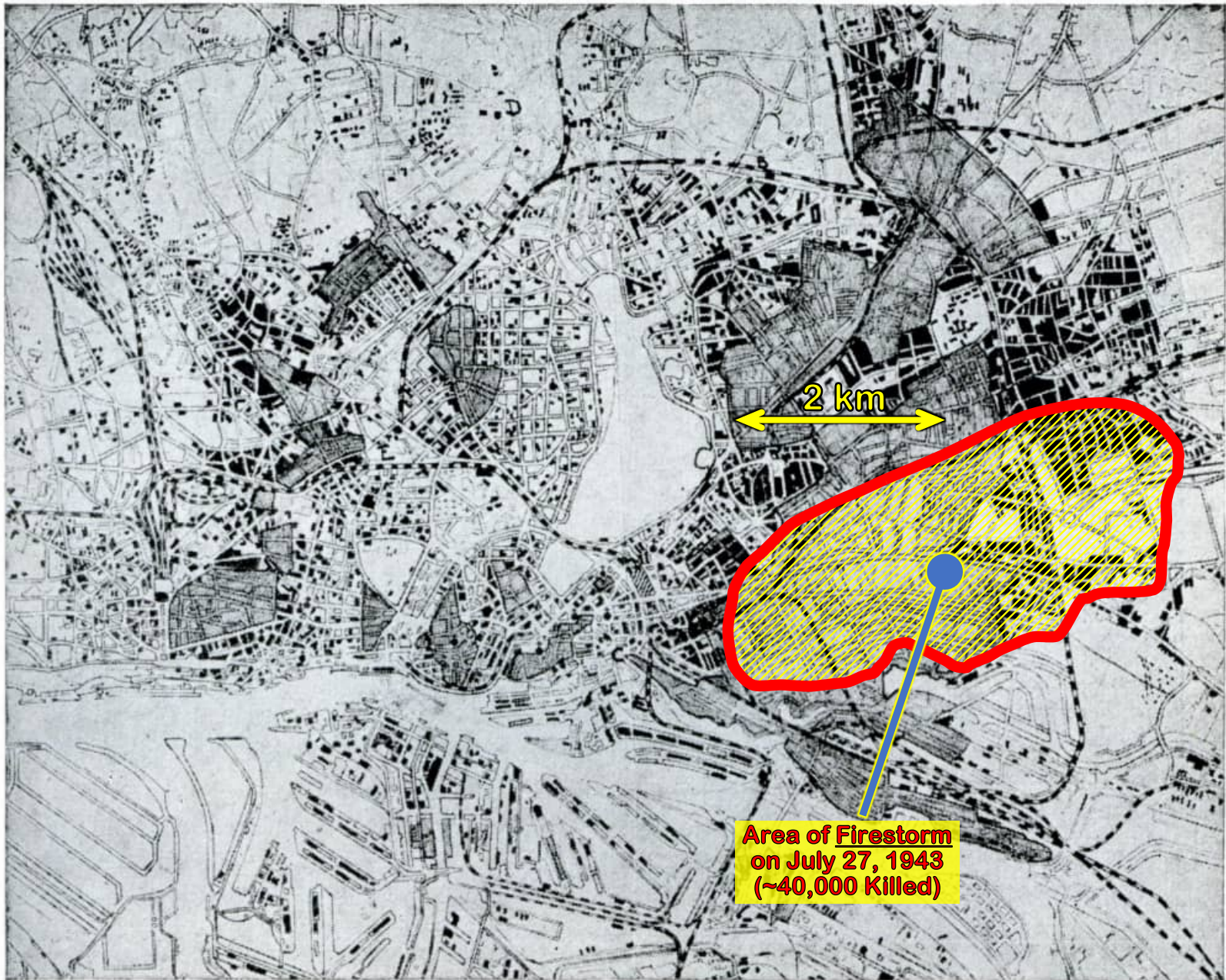
# Area of Firestorm in Hamburg from Allied Bombing Raid on 27/28 July 1943



North is at the top. Scale: 1 inch is 1.56 miles.

**HAMBURG'S BURNED-OUT AREAS.**

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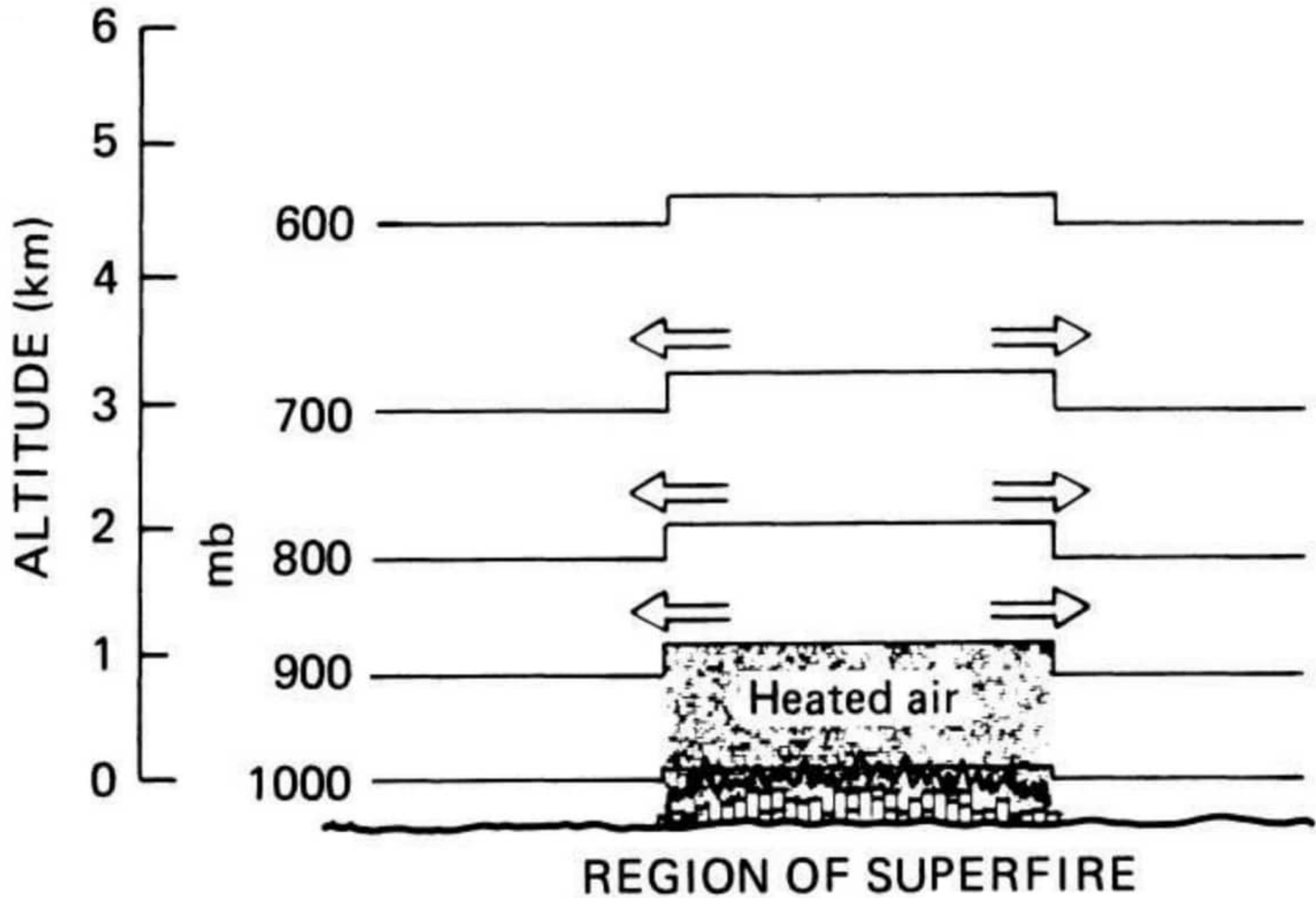
**HAMBURG'S BURNED-OUT AREAS.**

## Burning Areas of Firestorm in July 1943 Hamburg

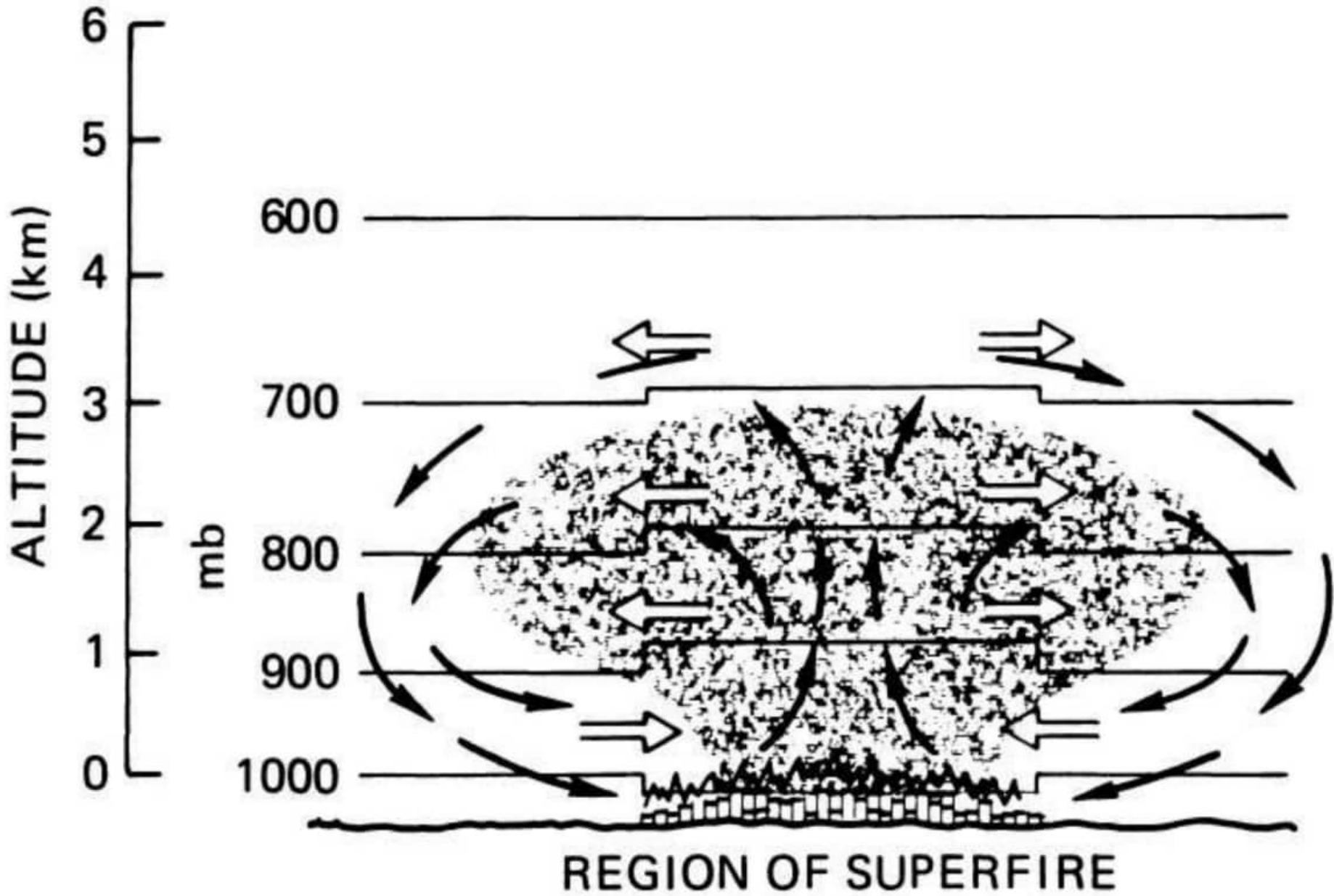
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# How Firestorm Develops from Rising Buoyant Air



# How Firestorm Intensifies from Rising Buoyant Air



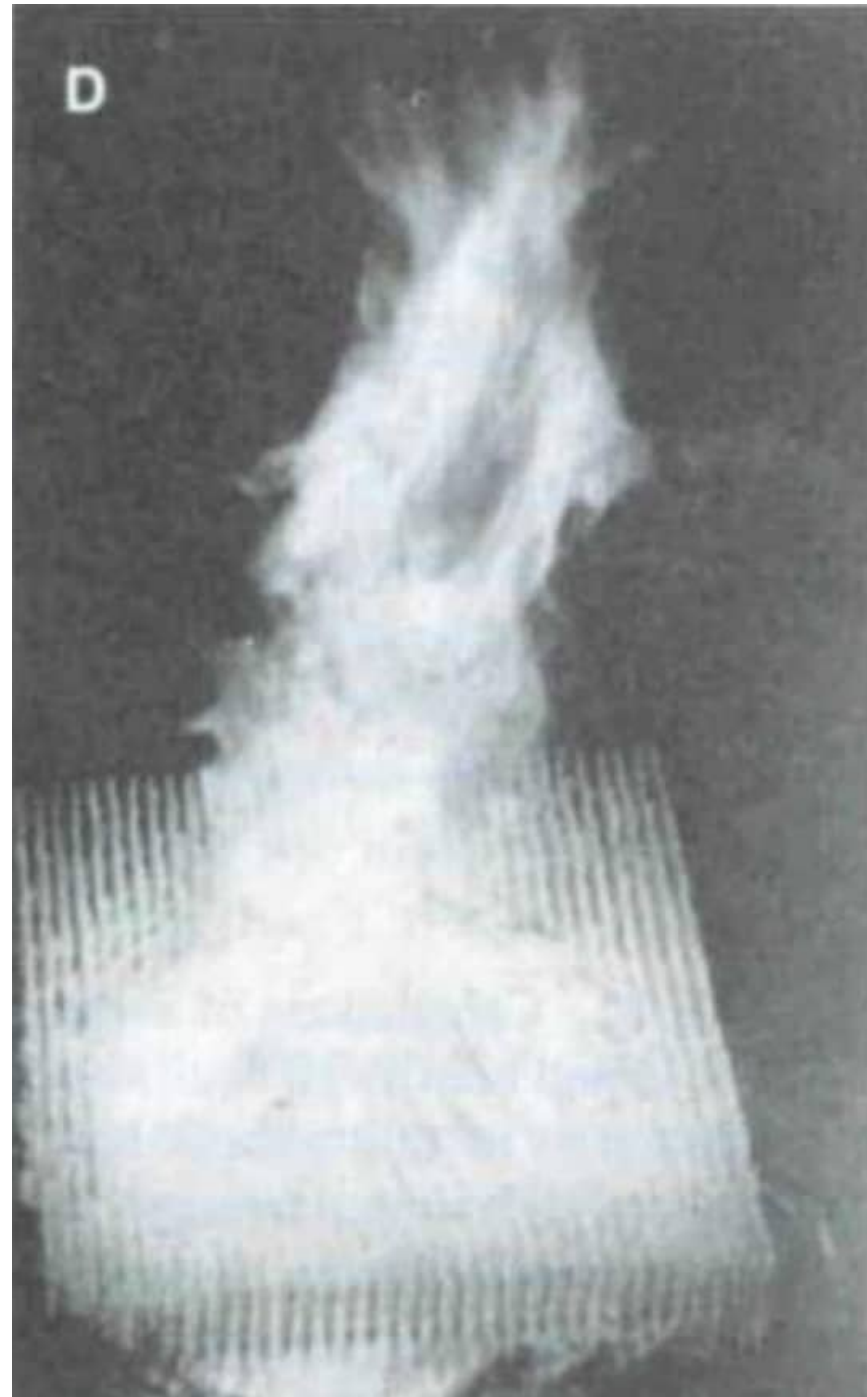
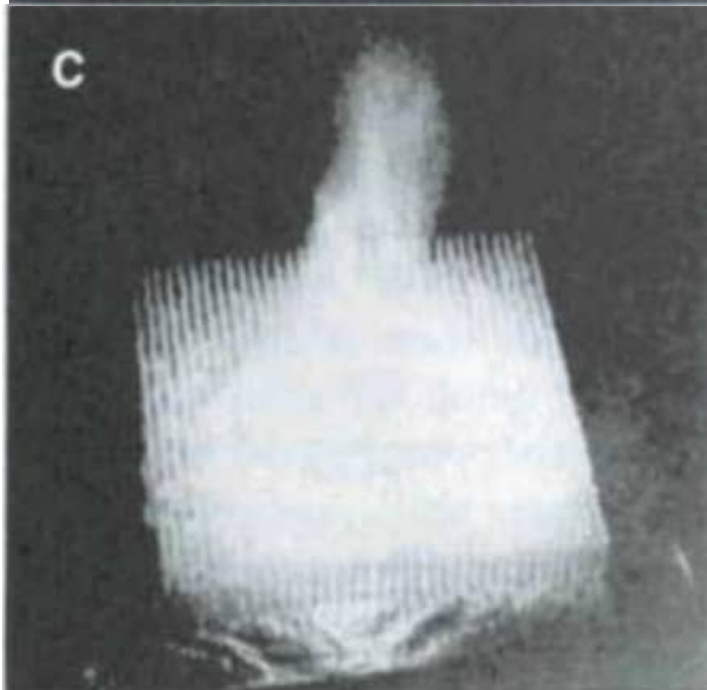
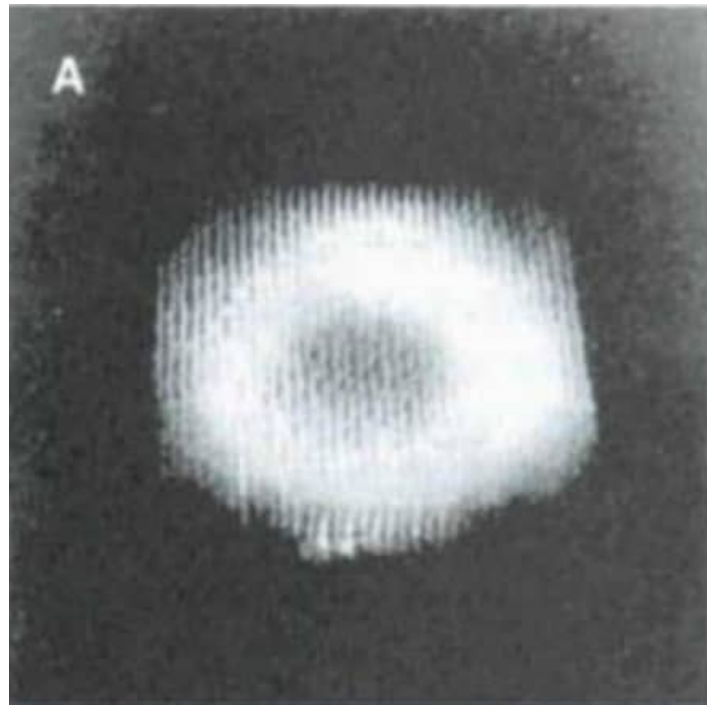
## Beginning of Firestorm Circulation in Hamburg

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# Table Top Experiment with Candles that Demonstrates How Firestorm Circulation Develops

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# Victims Killed by Carbon Monoxide and Intense Ground-Heating from Firestorm

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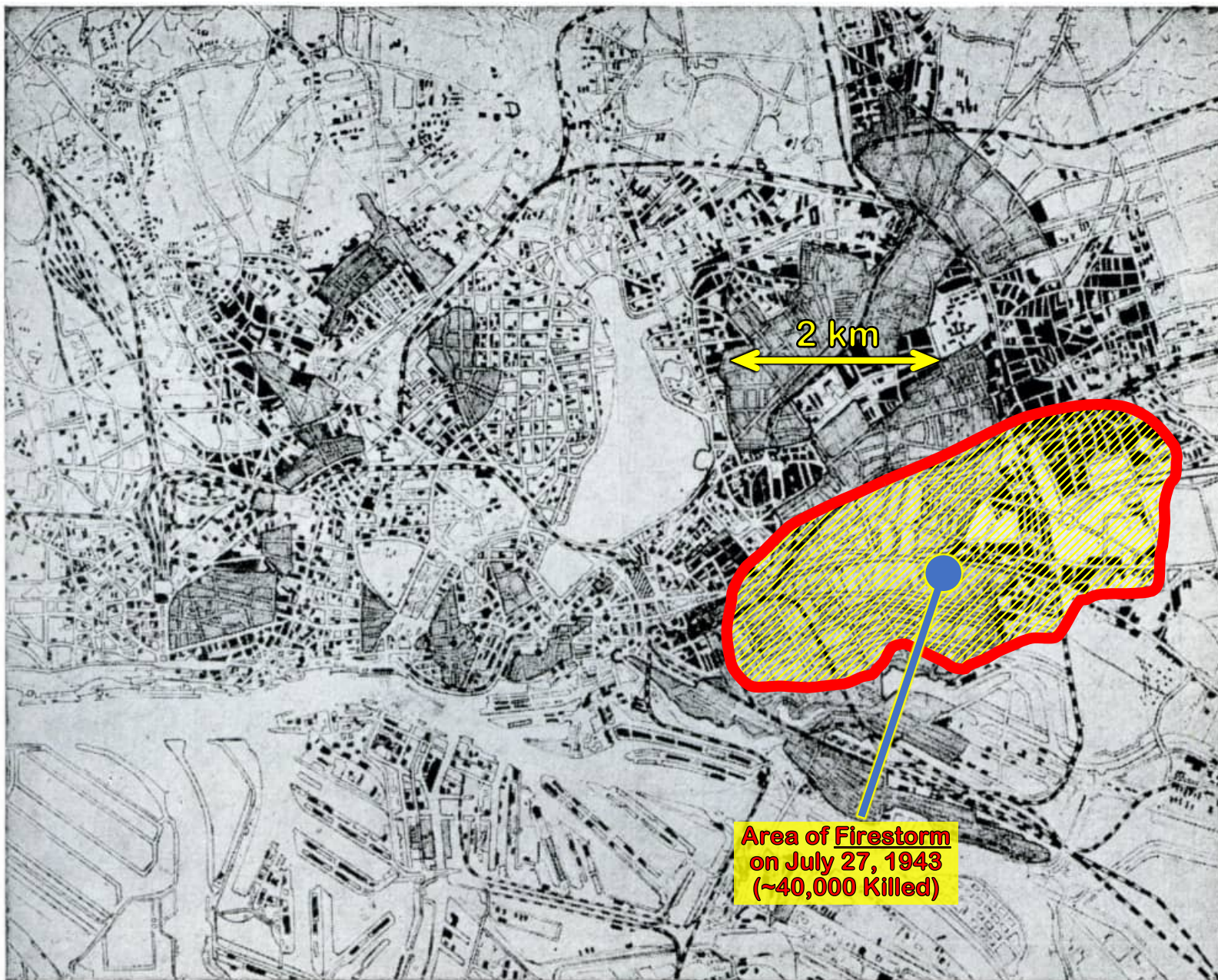


# Man Incinerated in Streets from Hurricane Force Superheated Firestorm Winds

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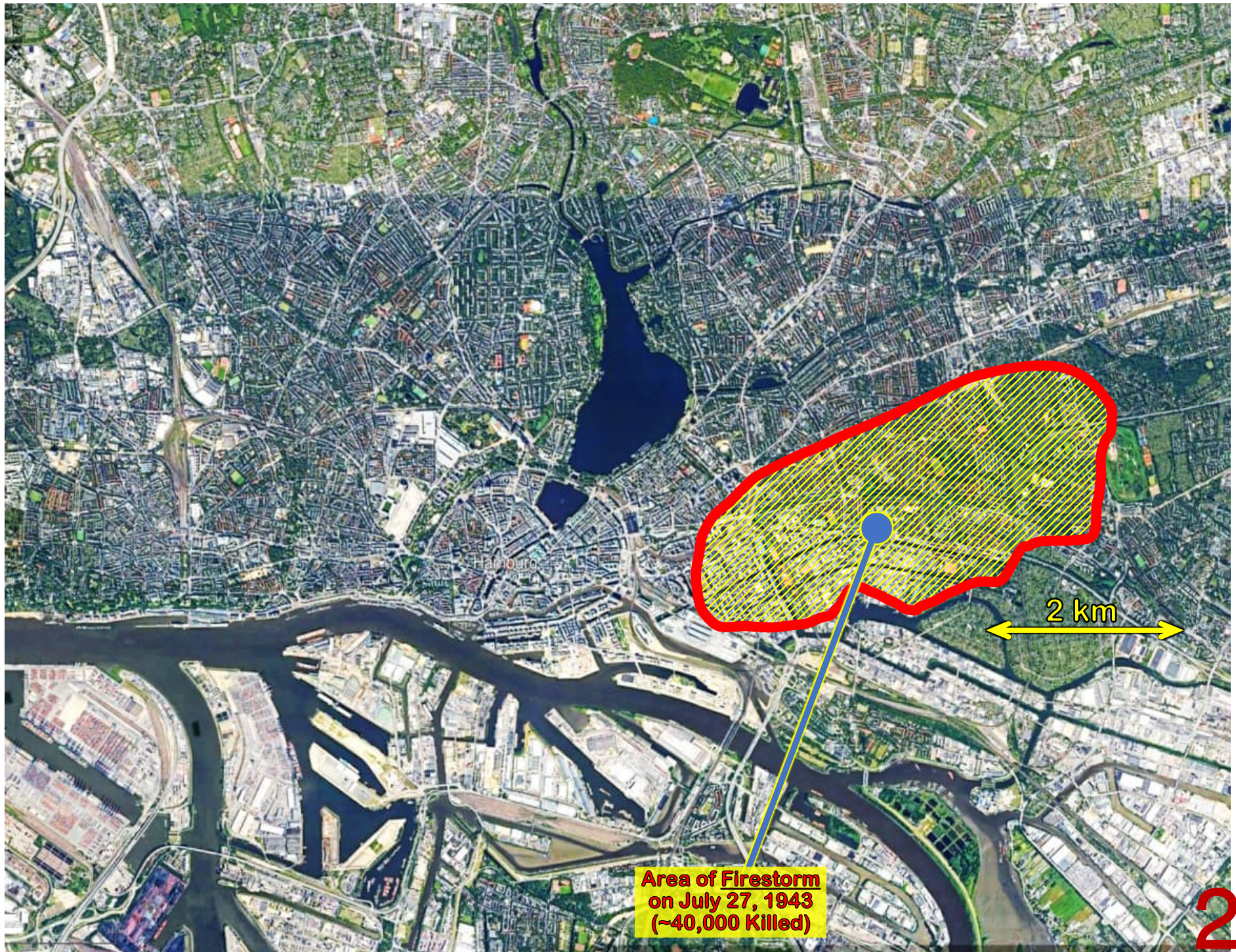
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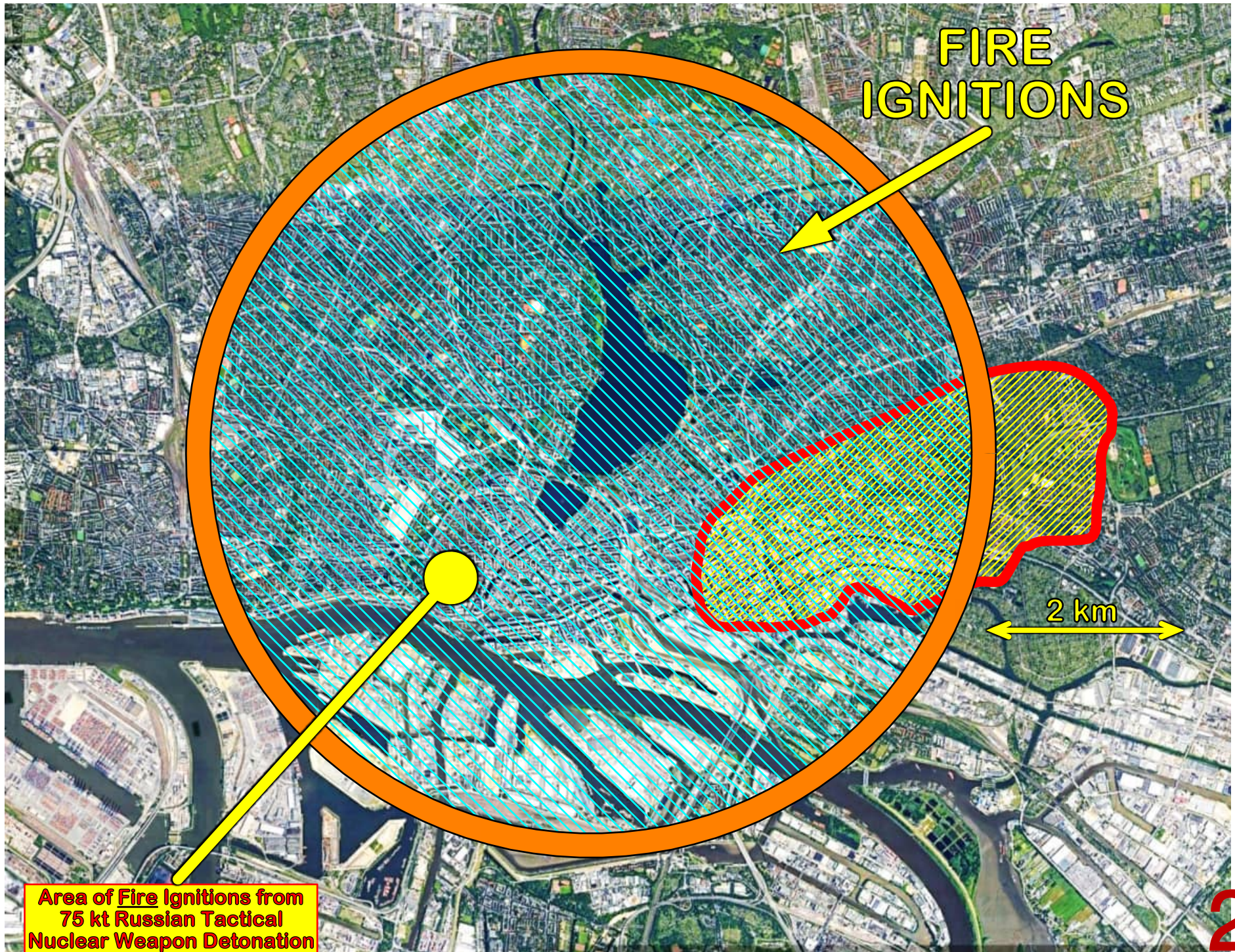


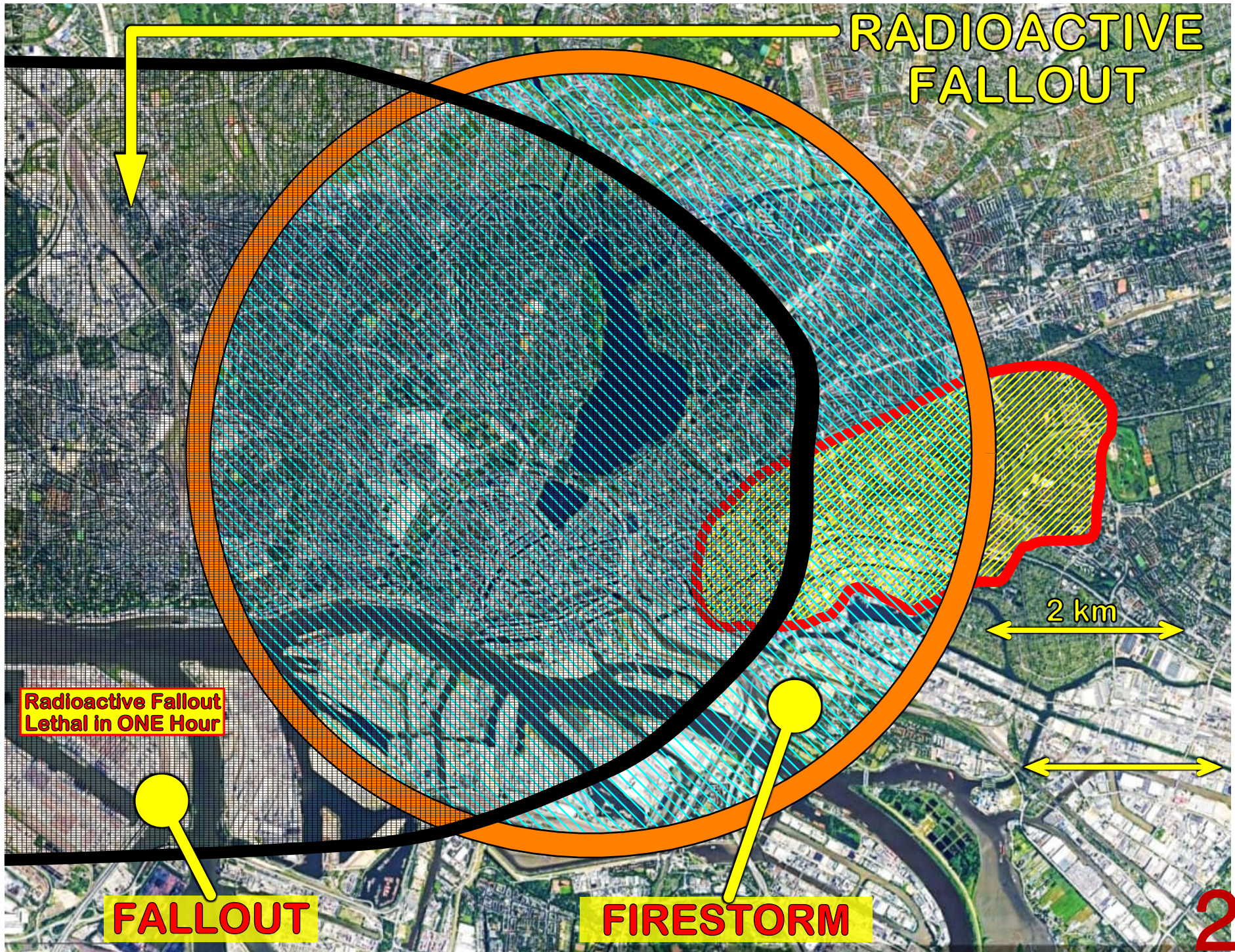
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HAMBURG'S BURNED-OUT AREAS.

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Attack on Airport

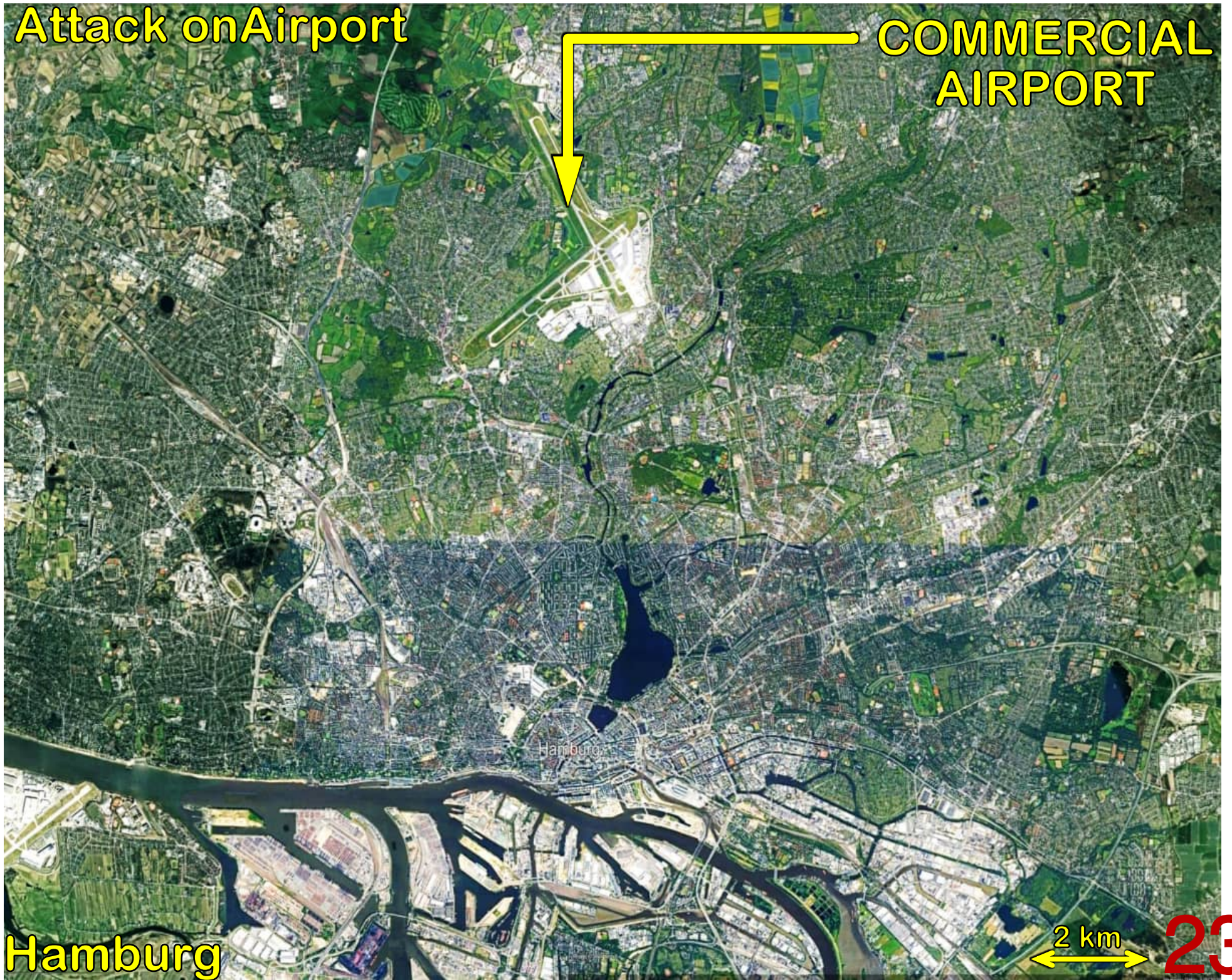
COMMERCIAL AIRPORT



Hamburg

2 km

23



# Attack on Airport

# COMMERCIAL AIRPORT

Area of LETHAL FALLOUT  
WITHIN ONE-HOUR OF  
NUCLEAR ATTACK

Area on Firestorm from 75 Kt  
Tactical Nuclear Detonation  
on Hamburg Airport

Area of Firestorm Spreading  
from Interacting Winds from  
the Two Main Areas of Fire

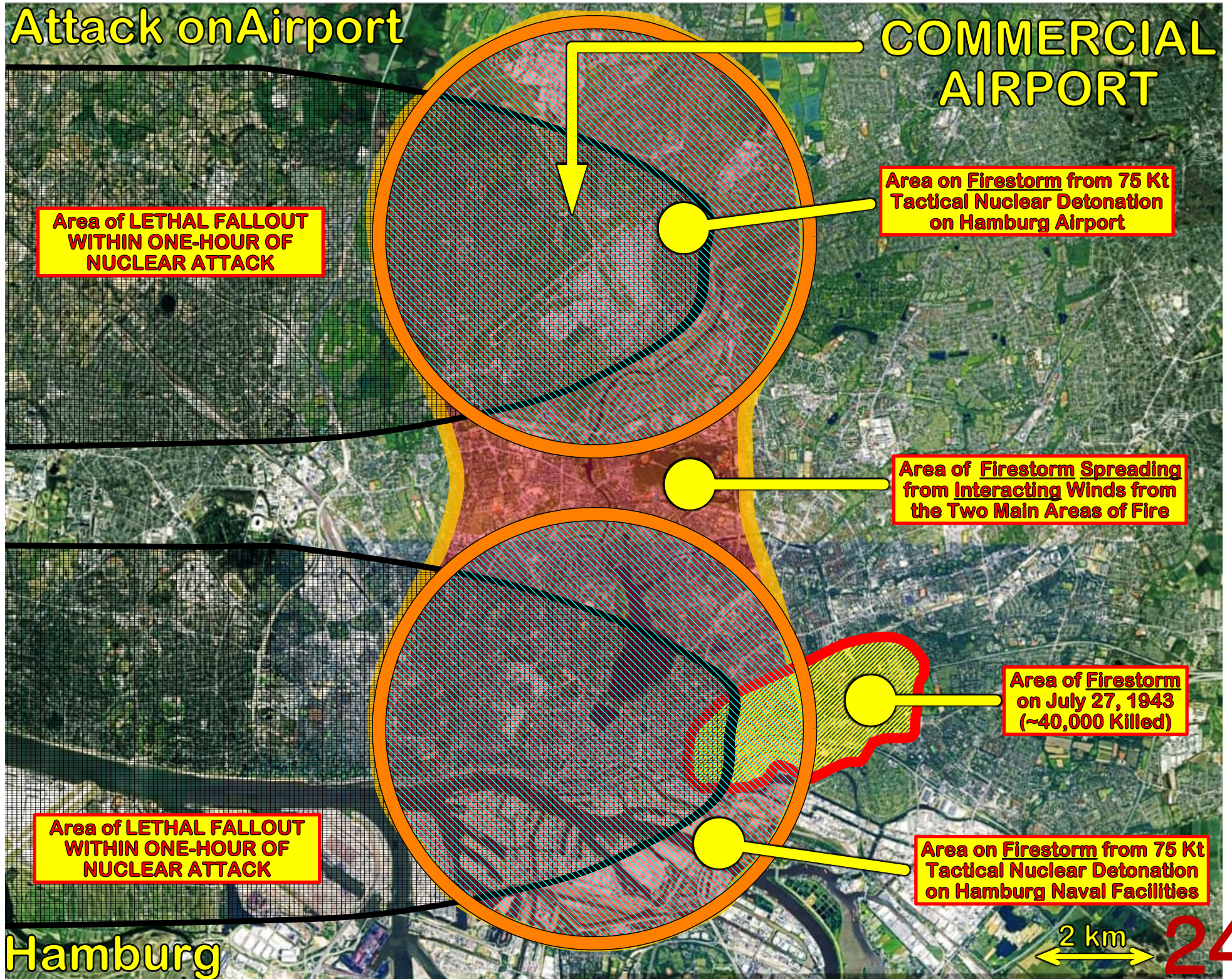
Area of Firestorm  
on July 27, 1943  
(~40,000 Killed)

Area of LETHAL FALLOUT  
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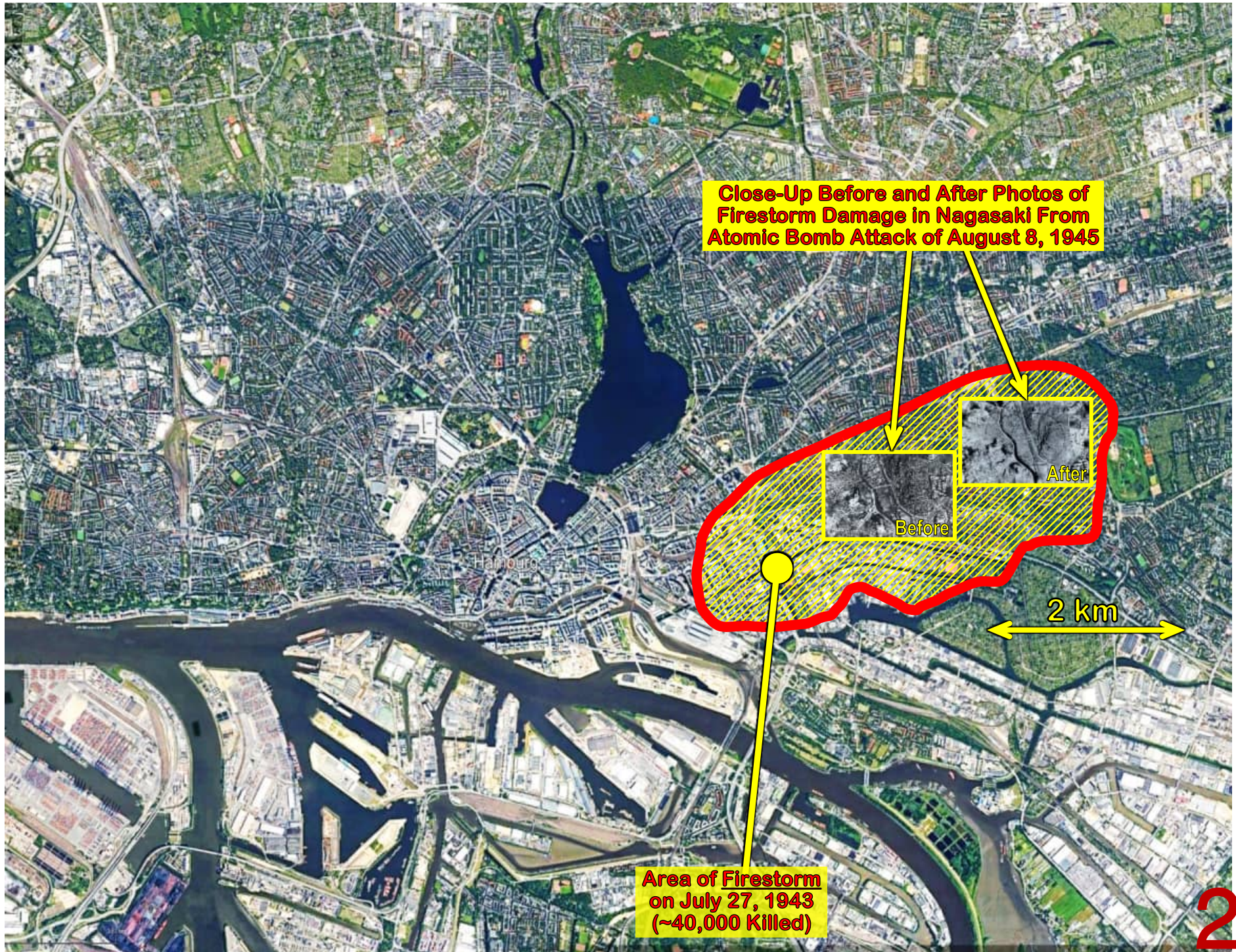
Area on Firestorm from 75 Kt  
Tactical Nuclear Detonation  
on Hamburg Naval Facilities

# Hamburg

2 km



# Photos of Firestorm Damage in Nagasaki Overlaid on Hamburg Firestorm Area July 1943



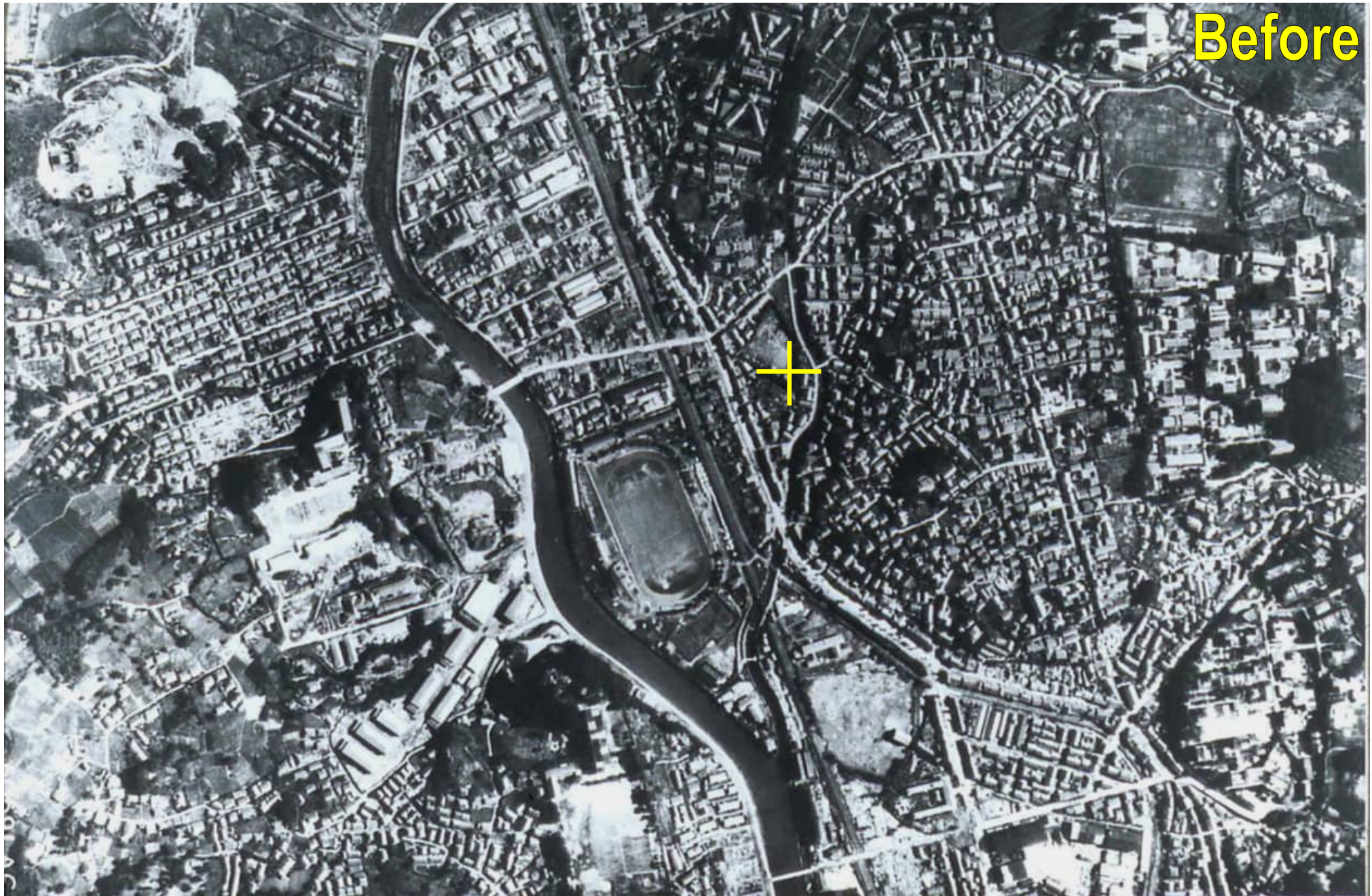
Close-Up Before and After Photos of Firestorm Damage in Nagasaki From Atomic Bomb Attack of August 8, 1945

Before After

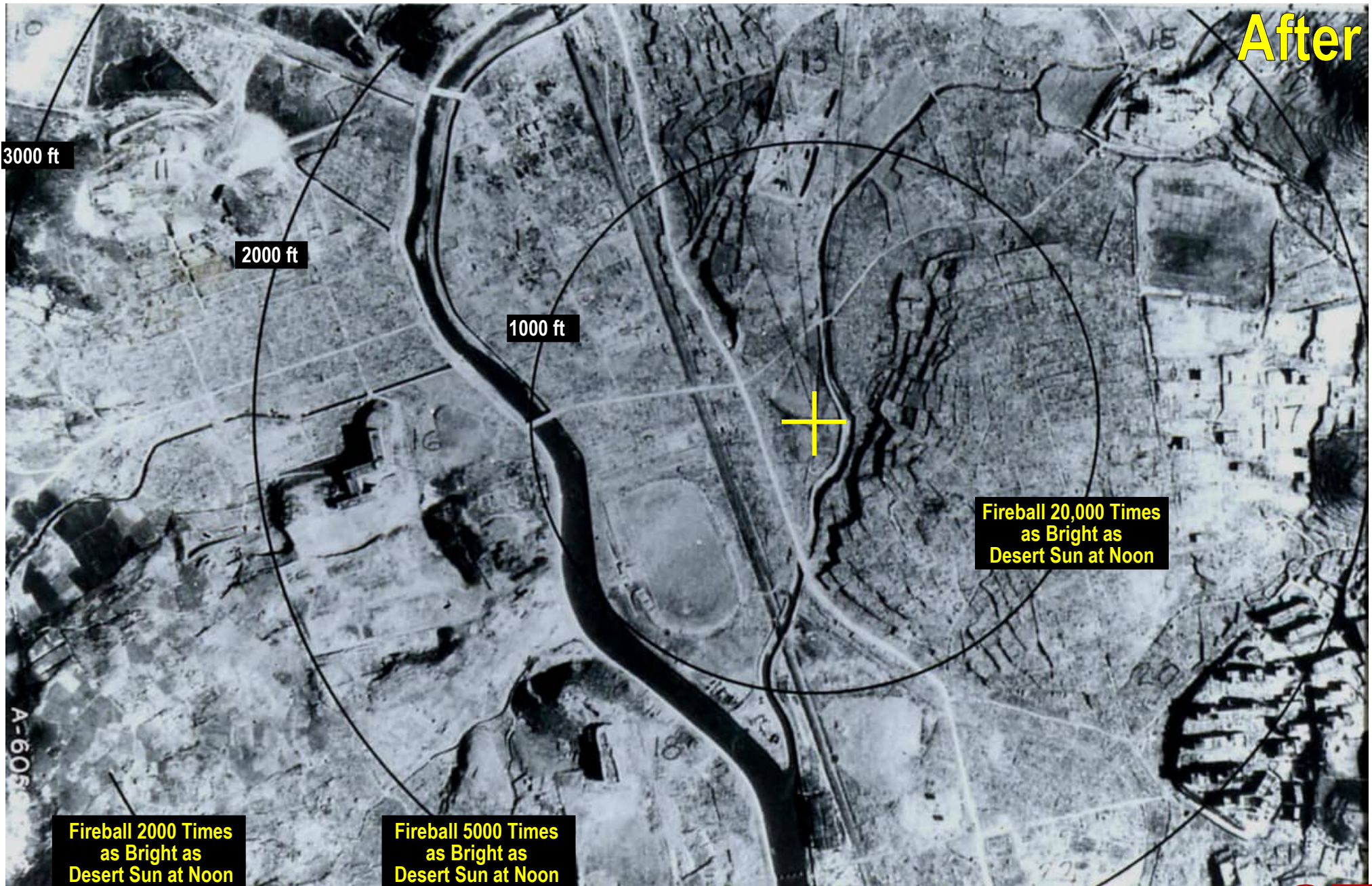
2 km

Area of Firestorm on July 27, 1943 (~40,000 Killed)

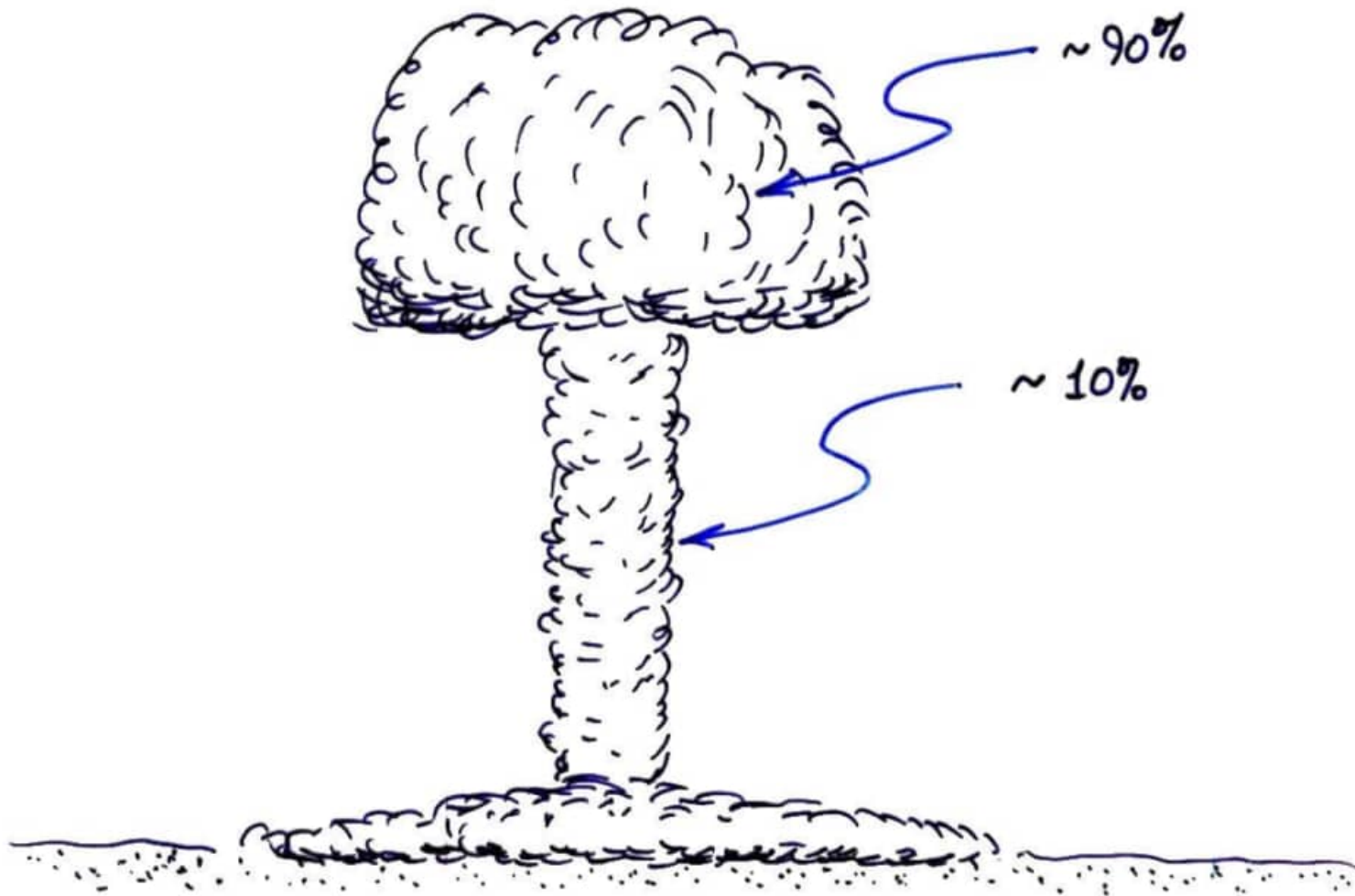
22 Kiloton Bomb on August 8, 1945 (Slide 1 of 2)



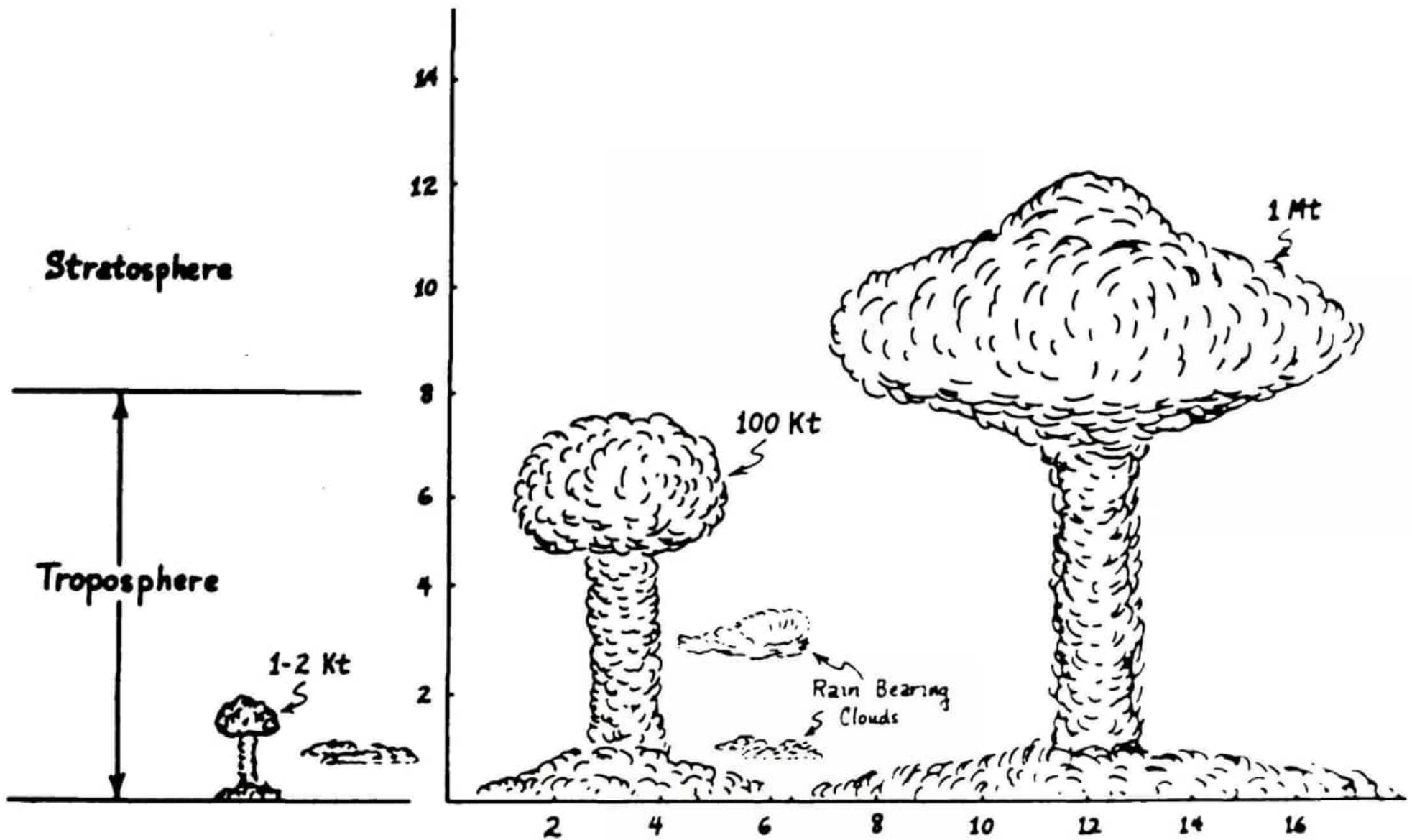
# Nagasaki, Japan After a Nuclear Attack and "Firestorm" from the Detonation of a 22 Kiloton Bomb on August 8, 1945 (Slide 2 of 2)



Spatial Distribution of Lofted Weapons  
Residues from Contact Surface Burst

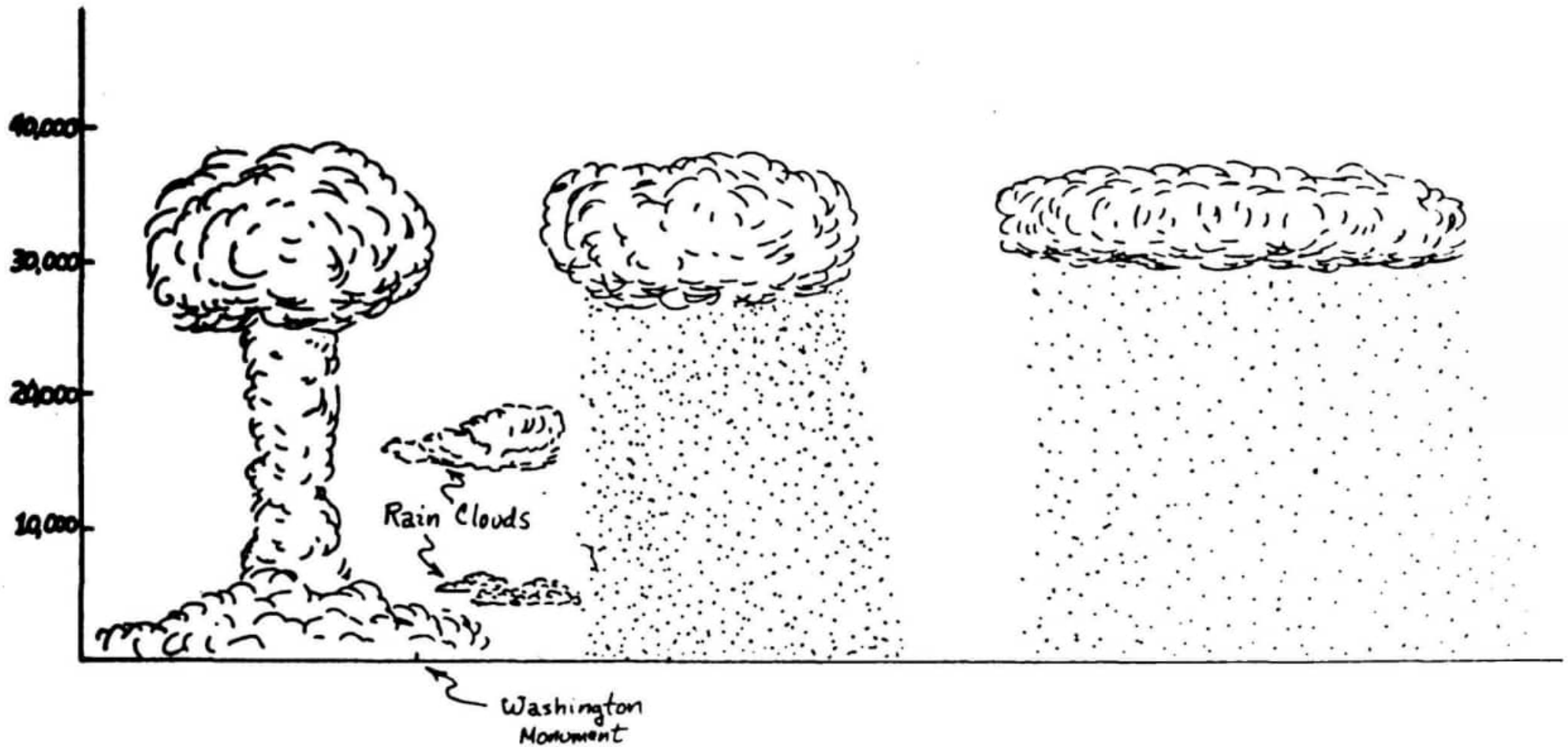


# Radioactive Nuclear Debris Clouds from Nuclear Detonations

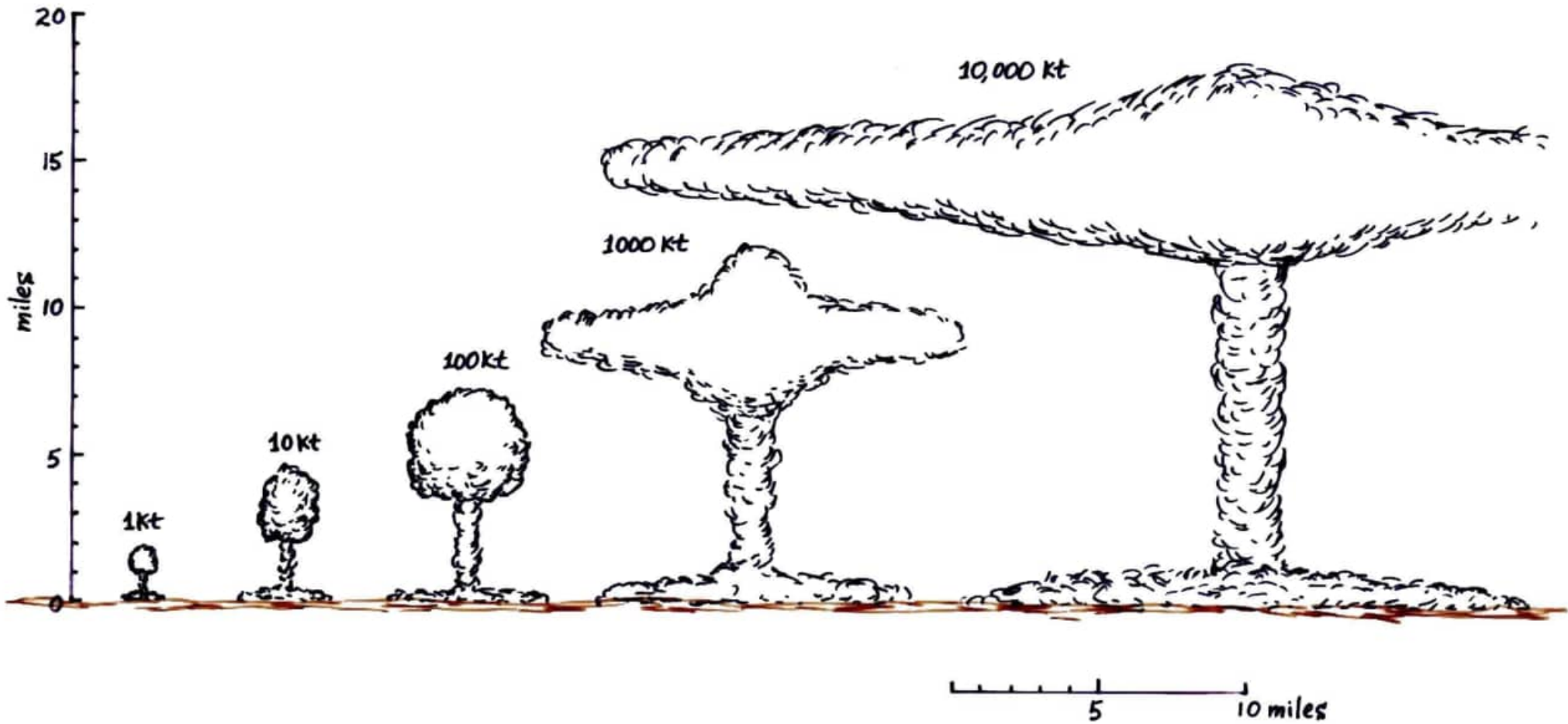


Distance and Altitude in Miles

# Radioactive Fallout from Wind-Driven Nuclear Debris Cloud

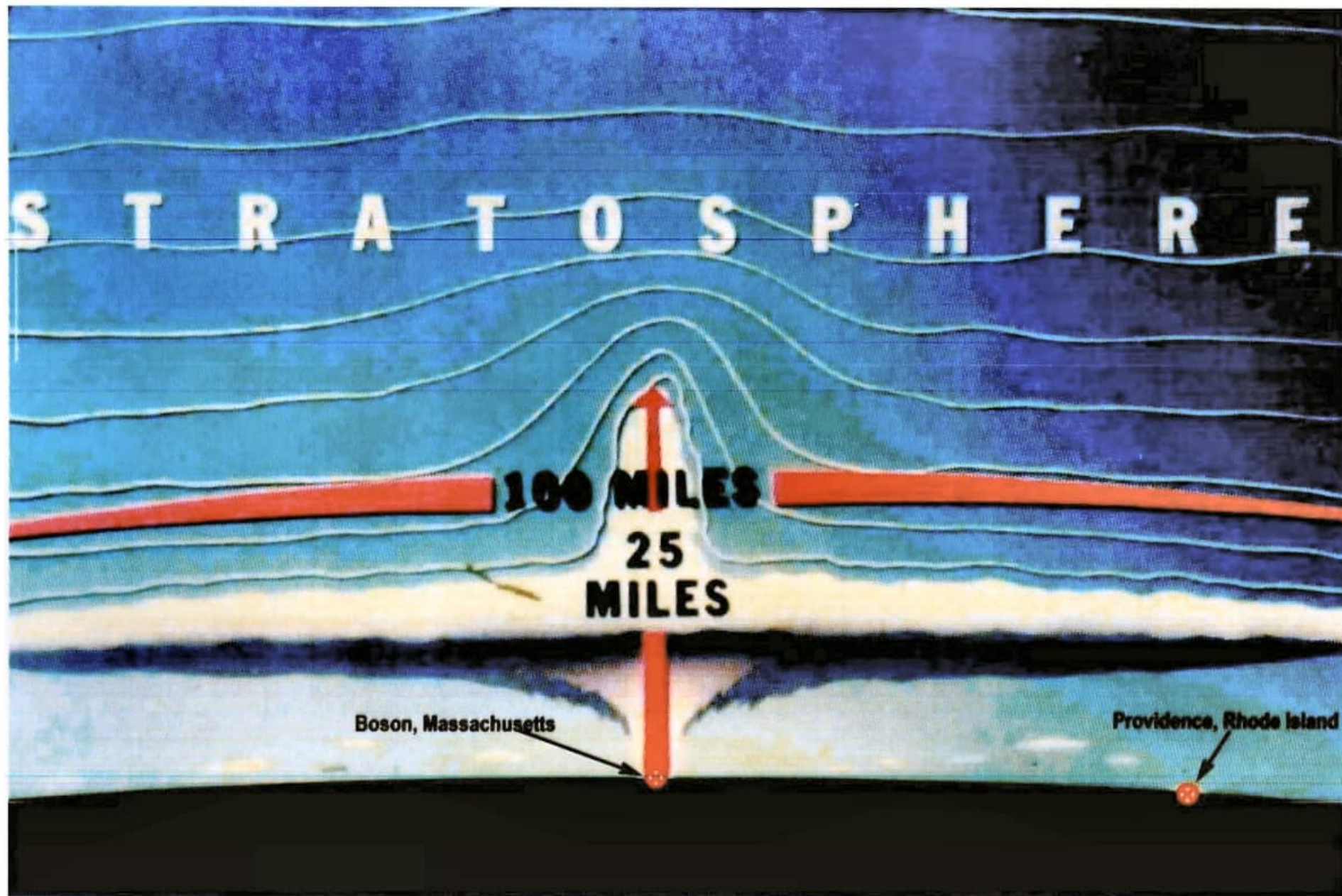


# Radioactive Nuclear Debris Clouds from Nuclear Detonations of Different Explosive Yields



# Nuclear Debris Cloud from the 15 Megaton Castle Bravo Detonation

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# COMMERCIAL AIRPORT

Area of LETHAL FALLOUT  
WITHIN ONE-HOUR OF  
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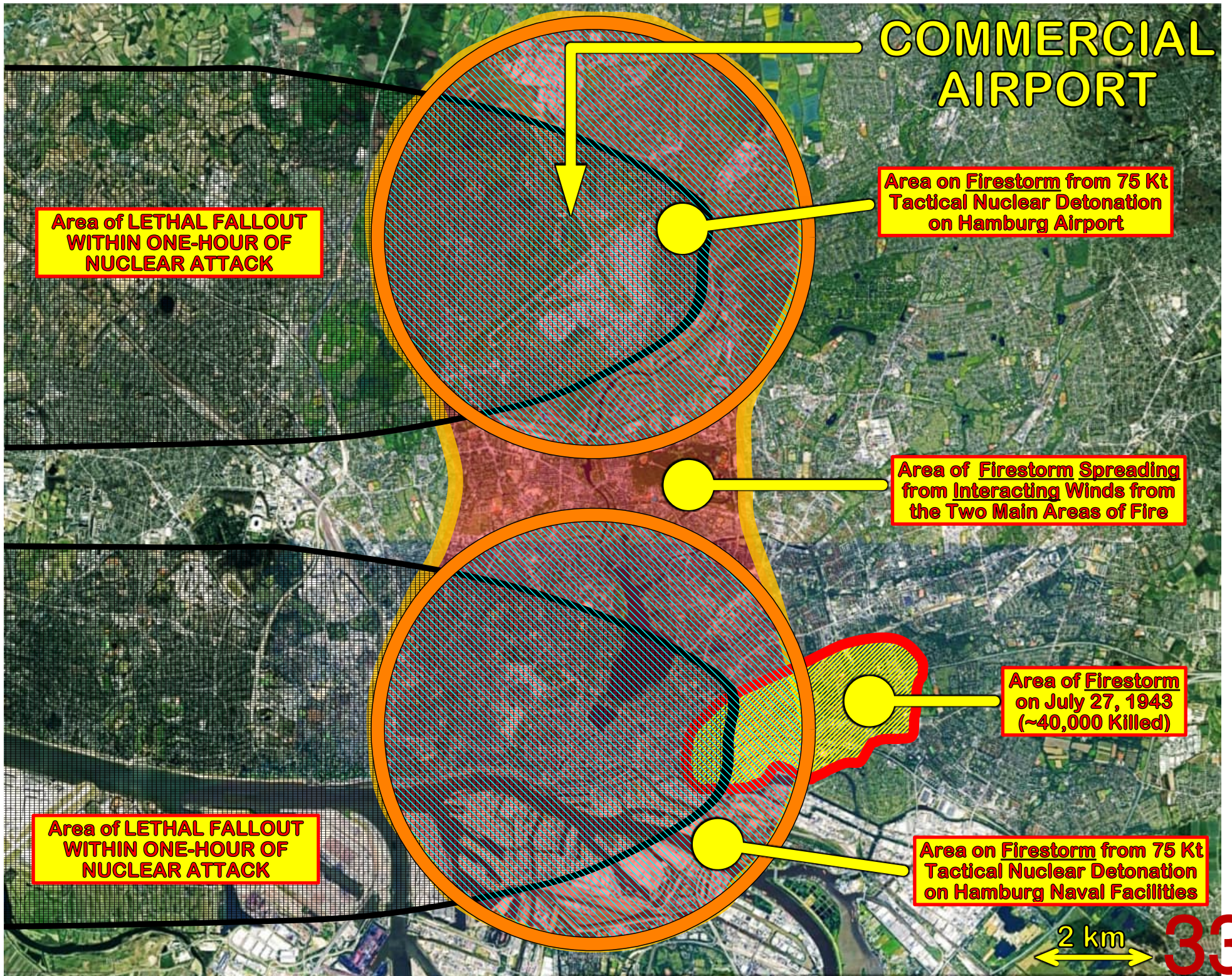
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