

CLOCK IS TICKING

The Doomsday Clock is a symbol which represents the likelihood of a man-made global catastrophe. Maintained since 1947 by the members of the Bulletin of the Atomic Scientists, The Clock is a metaphor for threats to humanity from unchecked scientific and technical advances. The Clock represents the hypothetical global catastrophe as "midnight" and the Bulletin's opinion on how close the world is to a global catastrophe as a number of "minutes" to midnight. The factors influencing the Clock are nuclear risk and climate change. The Bulletin's Science and Security Board also monitors new developments in the life sciences and technology that could inflict irrevocable harm to humanity.

12

YEAR: 1949-1952

11

CLOCK: 11:57-11:58

THE PRESIDENT'S ANNOUNCEMENT OF AN ATOMIC EXPLOSION SOMEWHERE IN THE Soviet Union HAS BEEN FOLLOWED BY A CHORUS OF REASSURING OFFICIAL AND UNOFFICIAL COMMENTS. AMERICANS HAVE BEEN ADVISED TO BE CALM.

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12

YEAR: 1952-1960

11

CLOCK: 11:58-11:53

January 1, 1960, marked the end of a decade. Looking back on the terrors which are now history, one is seized by a breath-taking thought: perhaps we have lived through a great turning point in the affairs of mankind. In the January 1955 issue of the Bulletin, the years 1945-55 were called "Ten Years that Shook the World." Another five years have passed, and vague outlines of a new world have begun to emerge from the anguish and confusion spread over the old world by the blasts that leveled Hiroshima and Nagasaki.

10

US

RUSSIA

UK

FRANCE

CHINA

INDIA

PAKISTAN

NORTH KOREA

NUMBER OF
NUCLEAR WEAPON
TEST BY COUNTRY



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12

YEAR: 1960-1963

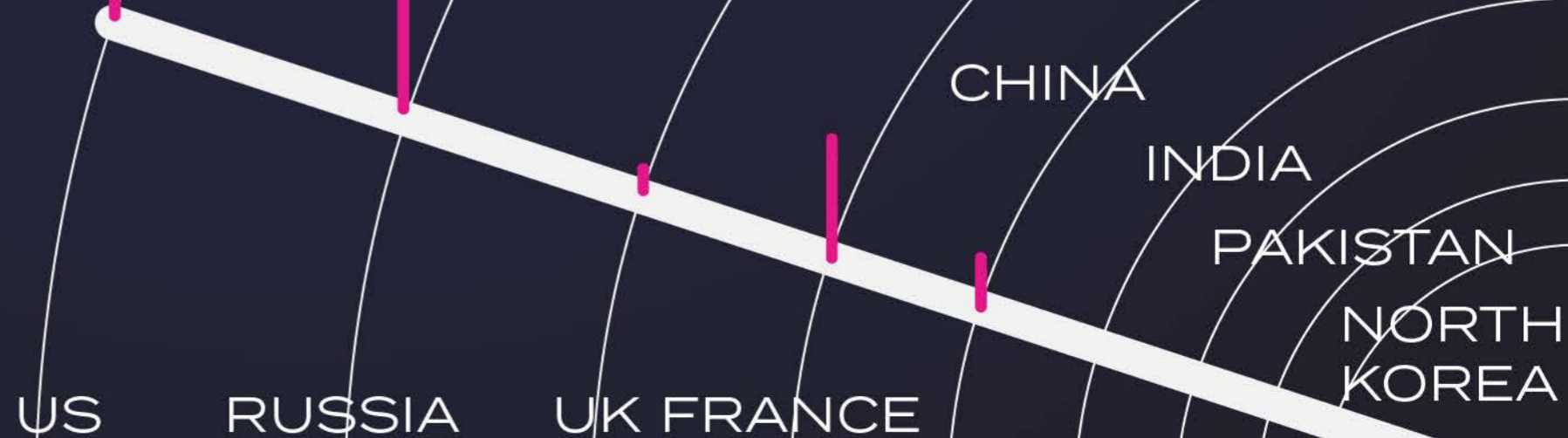
CLOCK: 11:53-11:48

11

Conclusion of a limited test-ban treaty is an encouraging event. It strengthens the slim hope that mankind will escape destruction in a nuclear war, and justifies the moving of the Bulletin's clock a few minutes back from the hour of doom. Not that the treaty is a significant step toward disarmament; it is not. Not that, because of it, no additional nations will acquire nuclear weapons; it will not achieve this in the most important case, that of China.

NUMBER OF
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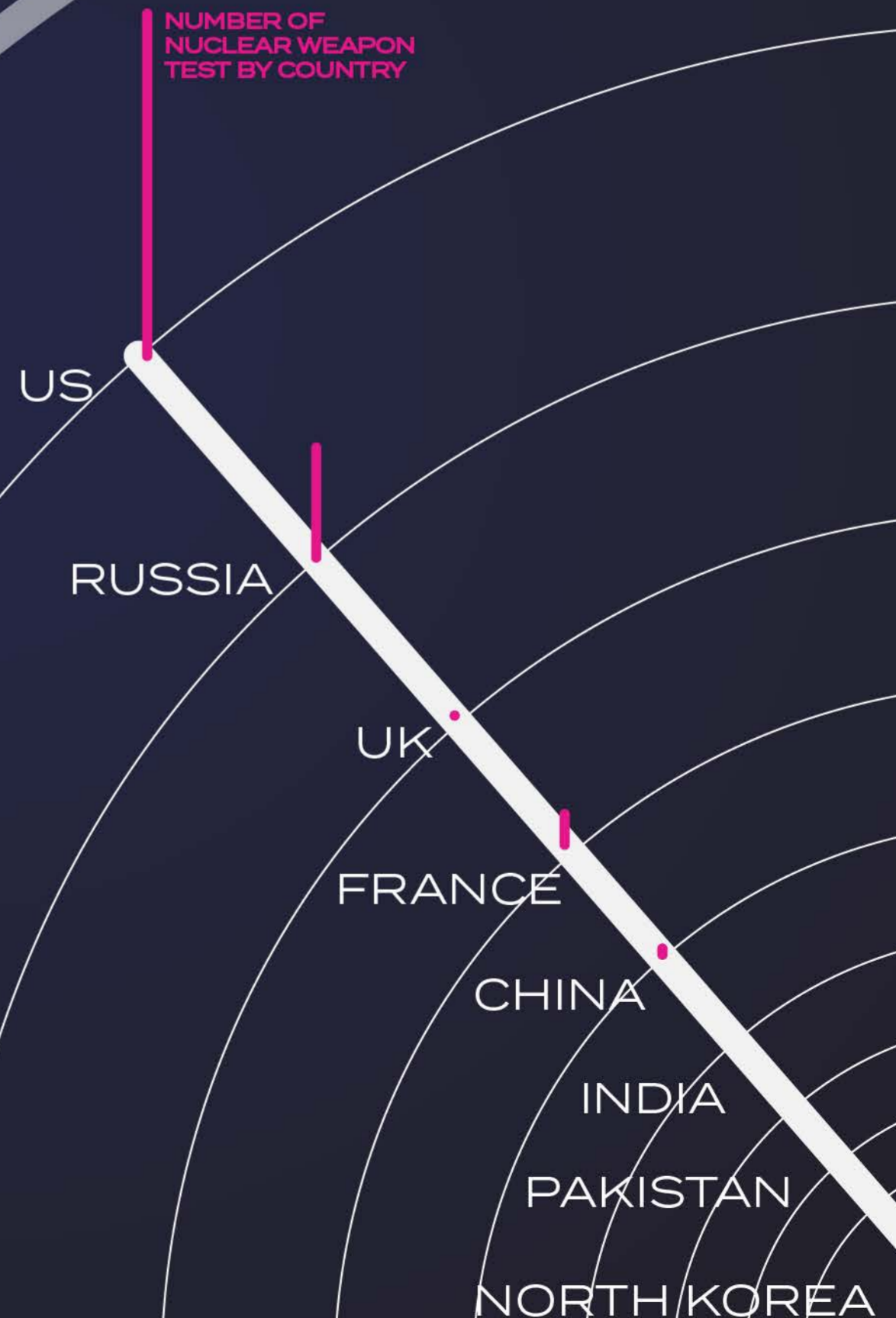
YEAR: 1963-1968

CLOCK: 11:48-11:53

11

Eight years ago, on January 1, 1960, the clock on the Bulletin cover was moved a few minutes back in recognition, we said then, "of the growth, in the preceding decade, of understanding that the advent of nuclear weapons had made war between major technological nations irrational." A year later the outcome of the Cuban crisis seemed to confirm this judgment: faced with the threat of nuclear war, the Soviet Union withdrew its missiles, and the United States promised not to renew assaults on Cuba.

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12

YEAR: 1968-1972

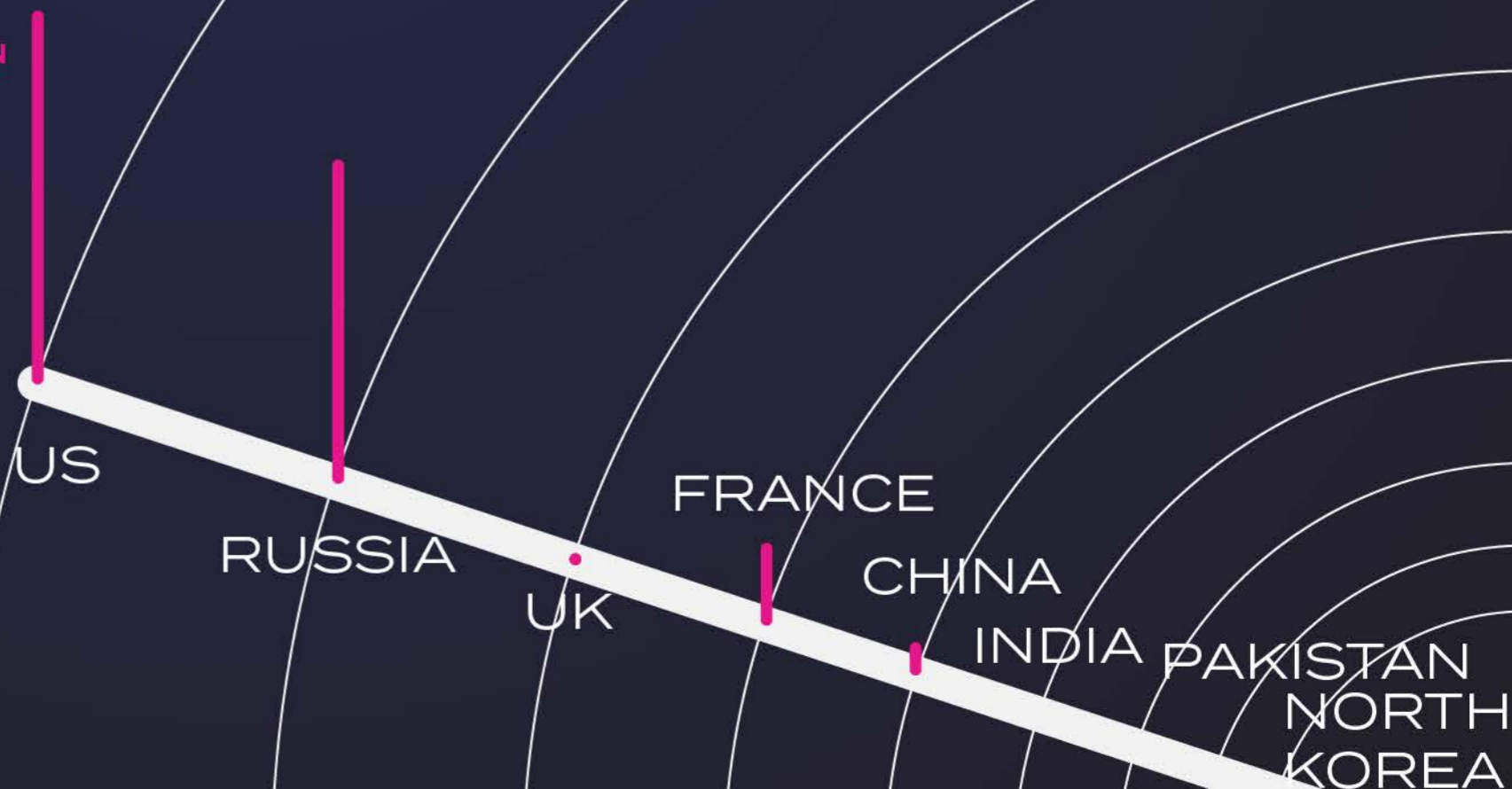
CLOCK: 11:50-11:48

11

The only surprise about the Russian- American SALT agreements, signed by Brezhnev and Nixon in Moscow on May 26, is that the summit meeting came off at all. But once the Russians decided to carry on as hosts to the man whom they had reviled as the architect of Vietnamization and the perpetrator of the renewed and intensified bombing of North Vietnam and the mining of its harbors, the rest was as predictable as a grade-B television western, including the irreconcilable differences that could be resolved only by the last-minute intervention of the two great statesmen-leaders.

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12

YEAR: 1972-1974

CLOCK: 11:48-11:51

11

For twenty-seven years the clock of the Bulletin of the Atomic Scientists has symbolized the threat of nuclear doomsday hovering over mankind. The minute hand, never far from midnight, has advanced and retreated with the ebb and flow of international power politics, registering basic changes in the level of the continuing danger in which people have lived since the dawn of the nuclear age.

10

NUMBER OF
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TEST BY COUNTRY

US

RUSSIA

UK

FRANCE

CHINA

INDIA

PAKISTAN

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12

YEAR: 1974-1980

CLOCK: 11:53-11:56

11

For the past 12 months, the Bulletin Clock has stood at 7 minutes before midnight but events have not stood still. As the year 1980 drew to a close, the world seemed to be moving unevenly but inexorably closer to nuclear disaster. The Clock must record this movement. The somewhat flawed but carefully balanced and patiently negotiated second phase of the Strategic Arms Limitation Treaty with the Soviet Union appears to be out the window.

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NUMBER OF
NUCLEAR WEAPON
TEST BY COUNTRY

US

RUSSIA

UK

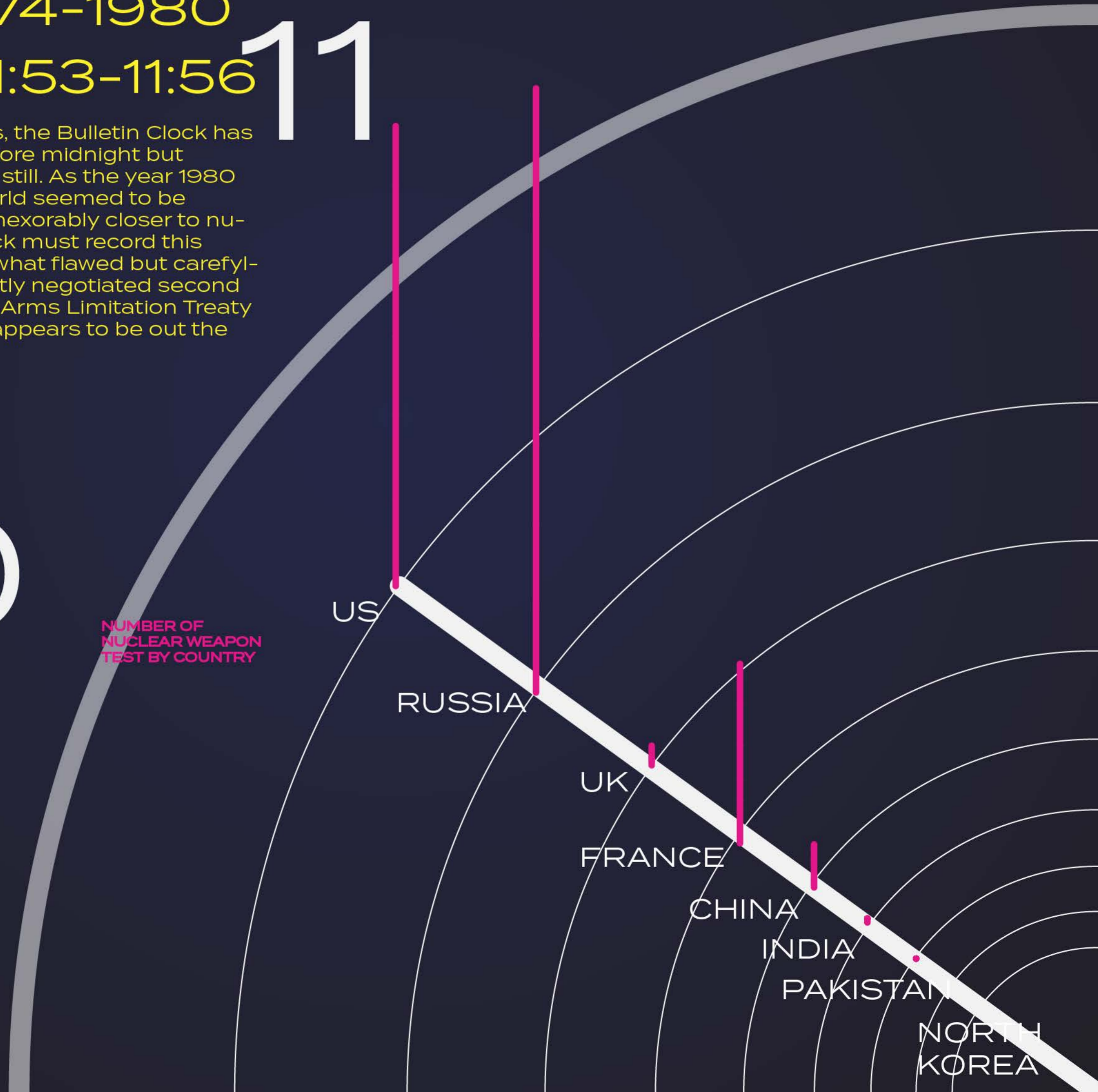
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12

YEAR: 1980-1981

CLOCK: 11:51-11:53

11

As the Bulletin begins its 35th year, we feel impelled to record and to emphasize the accelerating drift toward world disaster in almost all realms of social activity. Accordingly, we have decided to move the hands of the Bulletin's Clock—symbol of the world's approach to a nuclear doomsday—forward from 9 to 7 minutes before midnight.

The fact that the dangers of a nuclear holocaust are today certainly not less than they were in 1947, when the doomsday Clock first made its appearance on our cover, alone would justify returning the hands to their original position.

10

NUMBER OF
NUCLEAR WEAPON
TEST BY COUNTRY

US

RUSSIA

UK

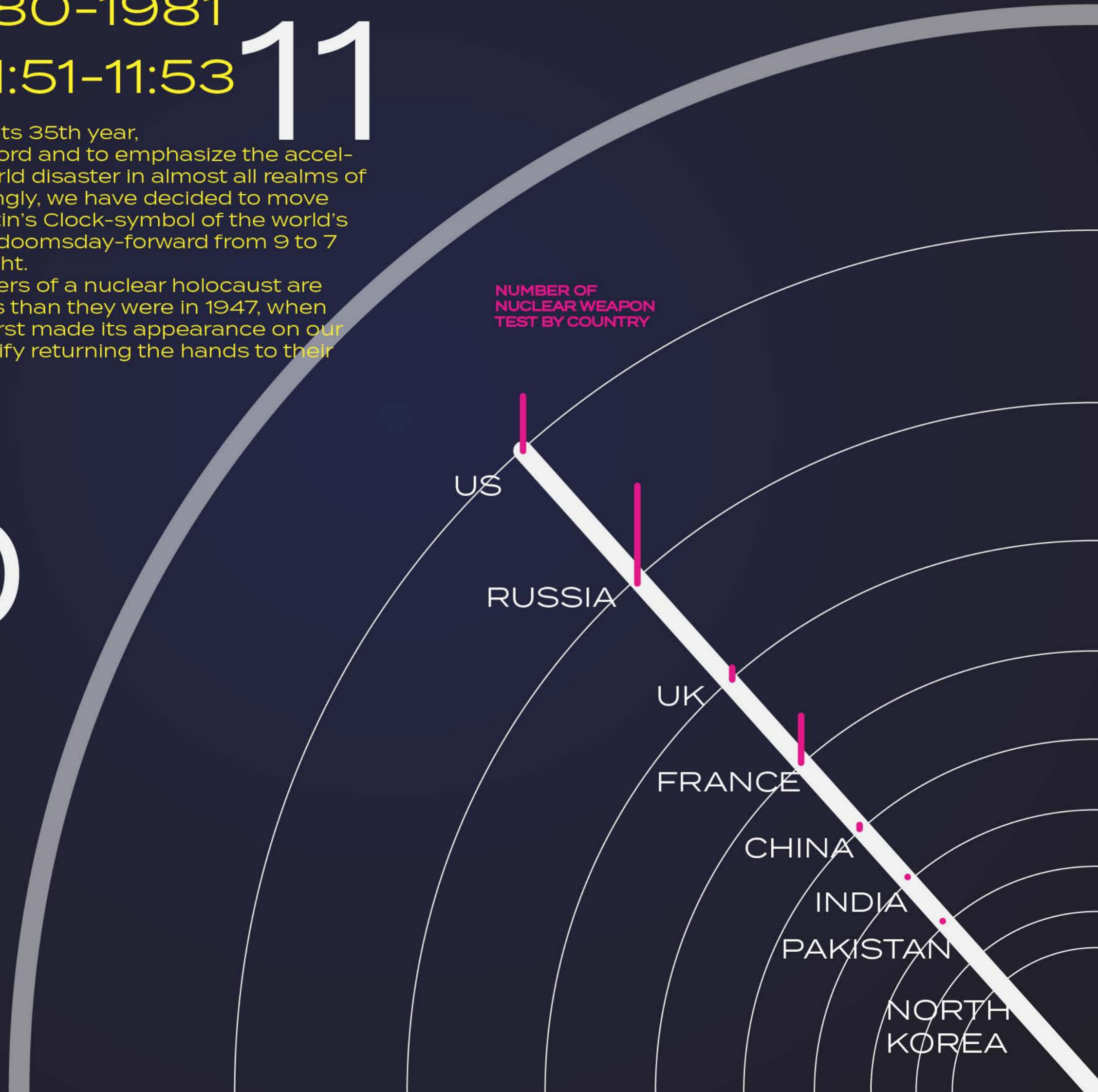
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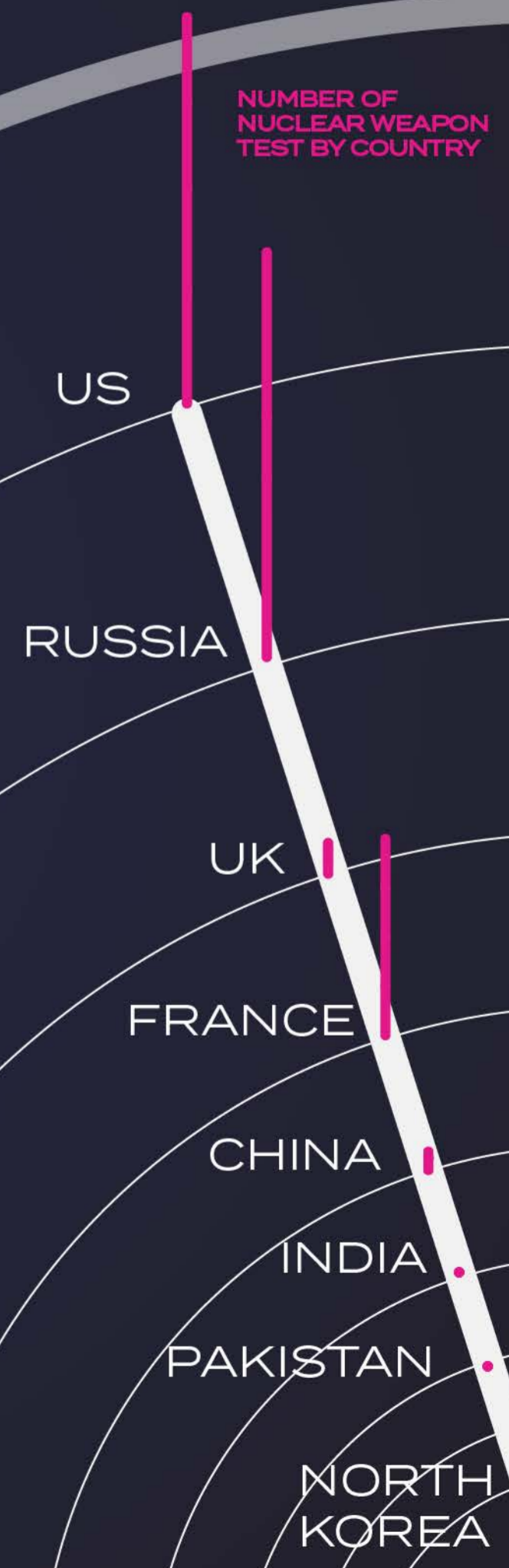
YEAR: 1981-1984

CLOCK: 11:56-11:57

11

AS WE ENTER the new year, hope is eclipsed by foreboding. The accelerating nuclear arms race and the almost complete breakdown of communication between the superpowers have combined- to create a situation of extreme and immediate danger. In response to these trends and as a warning of where they lead, we have moved the Bulletin's "doomsday clock" forward by one minute- to three minutes before midnight. It is a measure of the gravity of the current situation that only once in our 39-year history- in 1953 in response to the advent of the hydrogen bomb- have we seen fit to place the warning hand any closer to midnight than it stands today.

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YEAR: 1988

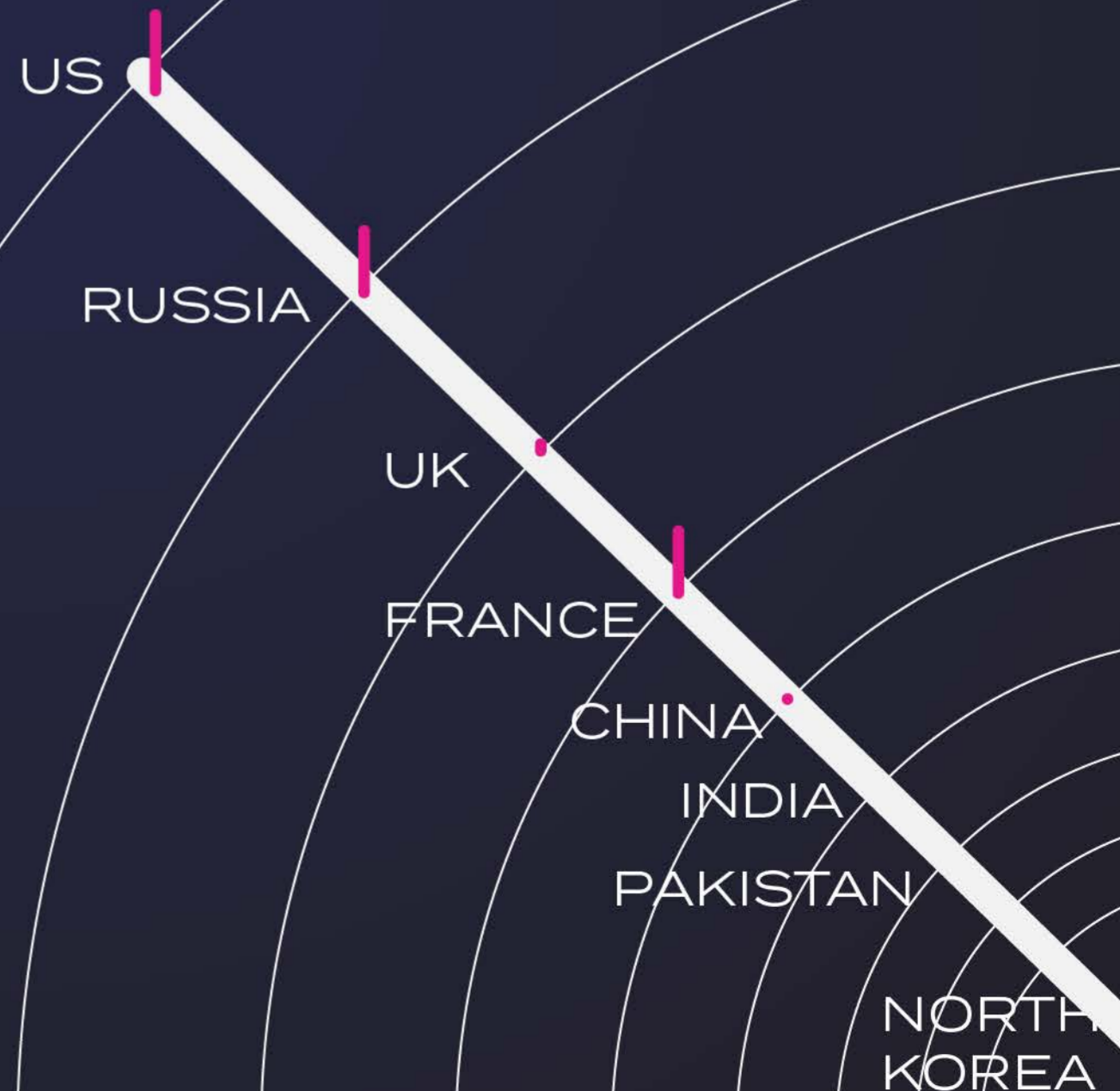
CLOCK: 11:57-11:54

11

For 16 years, the bulletin clock has steadily toward midnight. Since January 1984 it has stood at three minutes before the hour. But recent events—the U.S.-Soviet treaty to eliminate intermediate-range nuclear forces (INF), the improvement in superpower relations, and the increase in international and nongovernmental efforts to reverse the arms race — demonstrate that the world's dangerous course can be changed. In recognition of these developments, we now turn the clock back to six minutes to midnight.

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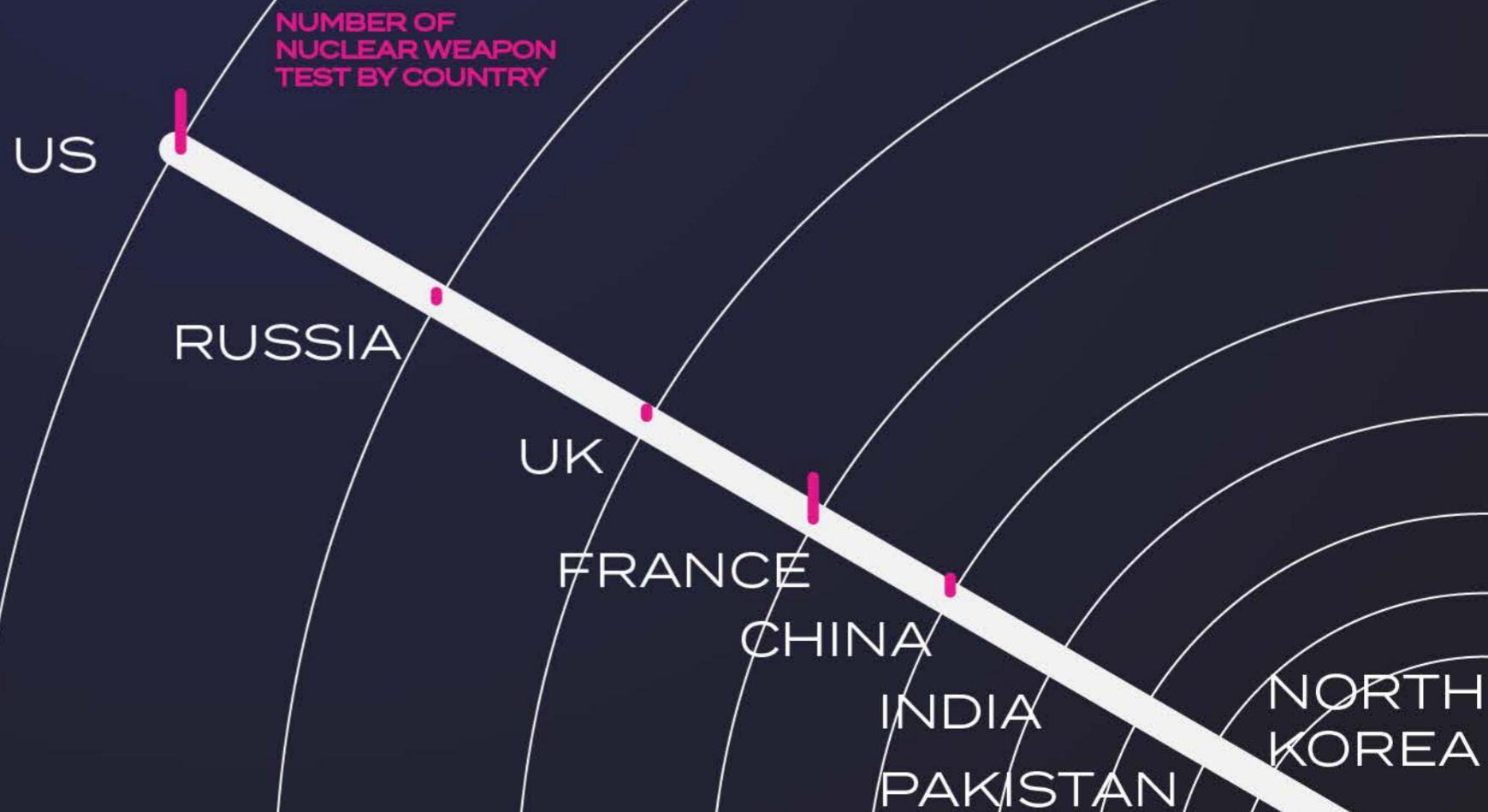
YEAR: 1988-1990

CLOCK: 11:54-11:50

11

A solitary Chinese man standing in the path of a column of tanks. Demonstrating South African women being attacked by police dogs. A playwright named president of Czechoslovakia. The bodies of six Salvadoran priests. All are faces of human courage in the struggle for freedom and dignity.

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12

YEAR: 1995

CLOCK: 11:43-11:46

11

The year begins with the "Doomsday Clock" being set a little closer to midnight. Cheers! And Happy New Year to you, too. Between 1947 and 1990, the clock's minute hand waggled back and forth 13 times, ranging from two minutes to midnight to 12 minutes to midnight. But, in December 1991—to memorialize the death of the East-West nuclear arms race and the apparent birth of democracy in Russia—the hand was moved off its 15-minute scale and set at 17 minutes to—its farthest point ever.

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12

YEAR: 1995-1998

CLOCK: 11:46-11:51

11

JUNE 11, 1998—THE BULLETIN OF THE ATOMIC SCIENTIST

has moved the minute hand of the "Doomsday Clock," its symbol of nuclear peril, five minutes closer to midnight. Yesterday it stood at 14 minutes to midnight. Today, it stands at nine. The Bulletin's Board of Directors moves the hand not only in response to the addition of two more states as declared nuclear powers, but also to dramatize the failure of world diplomacy in the nuclear sphere; the increased danger that the nonproliferation regime might ultimately collapse; and the fact that deep reductions in the numbers of nuclear weapons, which seemed possible at the start of the decade have not been realized.

NUMBER OF NUCLEAR WEAPON TEST BY COUNTRY

10

US

RUSSIA

UK

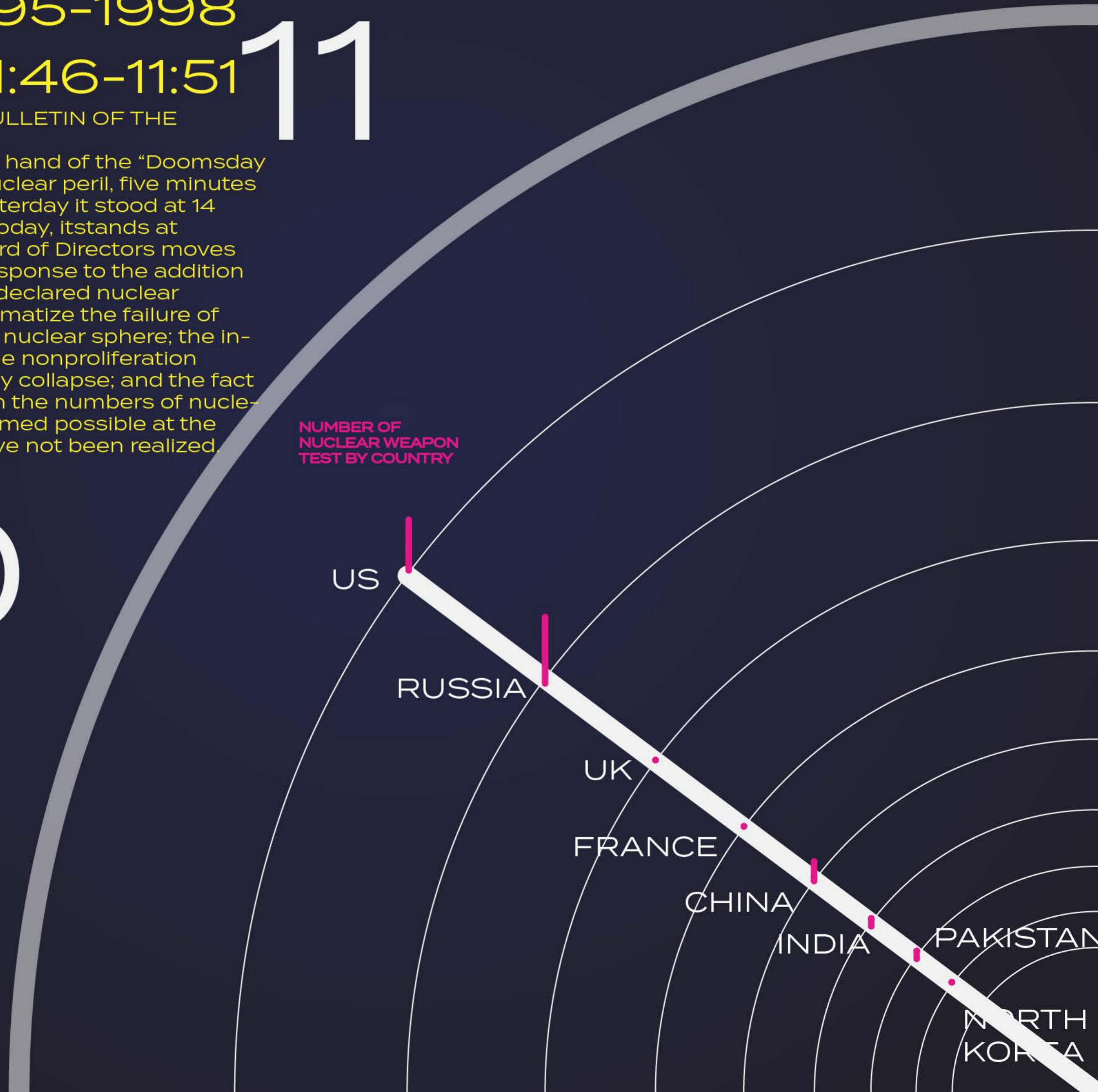
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12

YEAR: 1998-2002

CLOCK: 11:51-11:53

11

Chicago, February 27, 2002: Today, the Board of Directors of the Bulletin of the Atomic Scientists moves the minute hand of the "Doomsday Clock," the symbol of nuclear danger, from nine to seven minutes to midnight, the same setting at which the clock debuted 55 years ago. Since the end of the Cold War in 1991, this is the third time the hand has moved forward.

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US

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UK

FRANCE

CHINA

INDIA

PAKISTAN

NORTH KOREA

