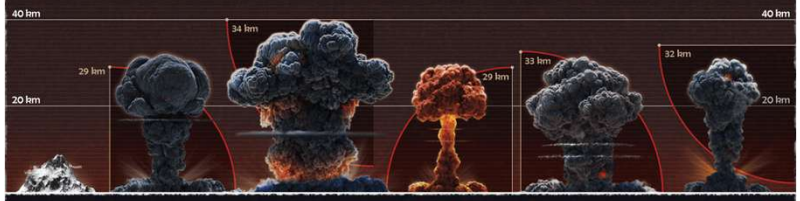
TOP 10 LARGEST NUCLEAR EXPLOSIONS

Since the first atomic bombs were dropped on Nagasaki and Hiroshima in 1945 during World War II, there have been over 2,000 nuclear tests around the world. Within 20 years, the United States and former Soviet Union tested nuclear weapons whose explosive power were at least 500 times greater.

We visually compare the top 10 largest nuclear explosions of all time.

The following nuclear explosions are displayed chronologically.
All of them were conducted in remote locations and not near civilian populations.



Mount Everest
8.8 km

Ivy Mike
Johnston Atoll, 1952
10 400 kt

Castle Bravo
Bikini Atoll, 1954
15 000 kt

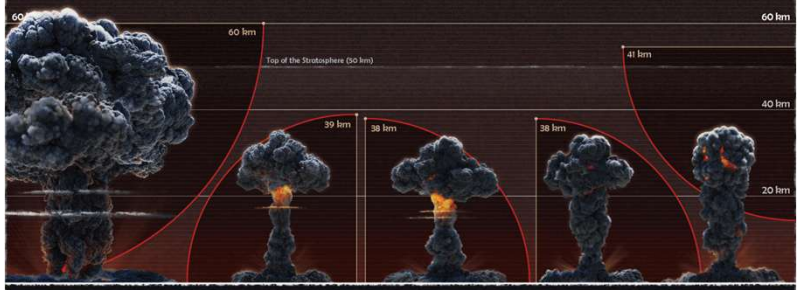
Castle Romeo
Bikini Atoll, 1954
11 000 kt

Castle Yankee
Bikini Atoll, 1954
13 500 kt

Soviet Test #123
Sukhoy Nos, 1961
12 500 kt

The most powerful nuclear explosions come from hydrogen bombs. Ivy Mike was the very first.

The **Bikini Atoll** is a coral reef in the Pacific Marshall Islands. It is 10 times more radioactive than Chernobyl as a result of repetitive nuclear testing.



Tsar Bomba
Sukhoy Nos, 1961
50 000 kt

Soviet Test #147
Sukhoy Nos, 1962
21 100 kt

Soviet Test #173
Sukhoy Nos, 1962
19 100 kt

Soviet Test #174
Sukhoy Nos, 1962
20 000 kt

Soviet Test #219
Sukhoy Nos, 1962
24 200 kt

The Tsar Bomba is the largest nuclear explosion of all time. It completely obliterated an abandoned village 55 km away.

The Soviet Union's largest nuclear tests were conducted on **Sukhoy Nos**, a region on the northern Russian archipelago called Novaya Zemlya.

There are no released photos or videos of this explosion. Despite being the second largest nuclear explosion of all time, it's height and destructive radius are estimated.

SOURCES: "These Are the 12 Largest Nuclear Detonations in History." Business Insider, shorturl.at/luyER. "1962 Soviet Nuclear Tests." Wikipedia, 1 July 2021, en.wikipedia.org/wiki/1962_Soviet_nuclear_tests.
Mushroom cloud size and destructive radii data are calculated from NUKEMAP by Alex Wellerstein. (nuclearsecrecy.com/nukemap)

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RESEARCH, WRITING AND DESIGN Mark Belan
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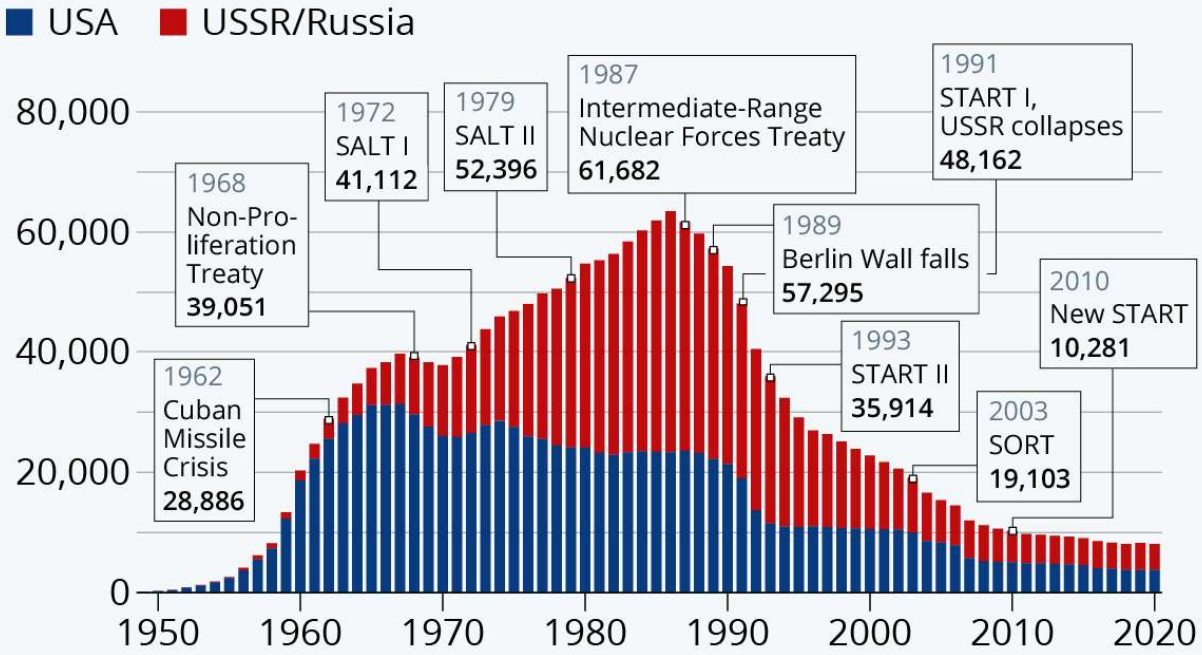
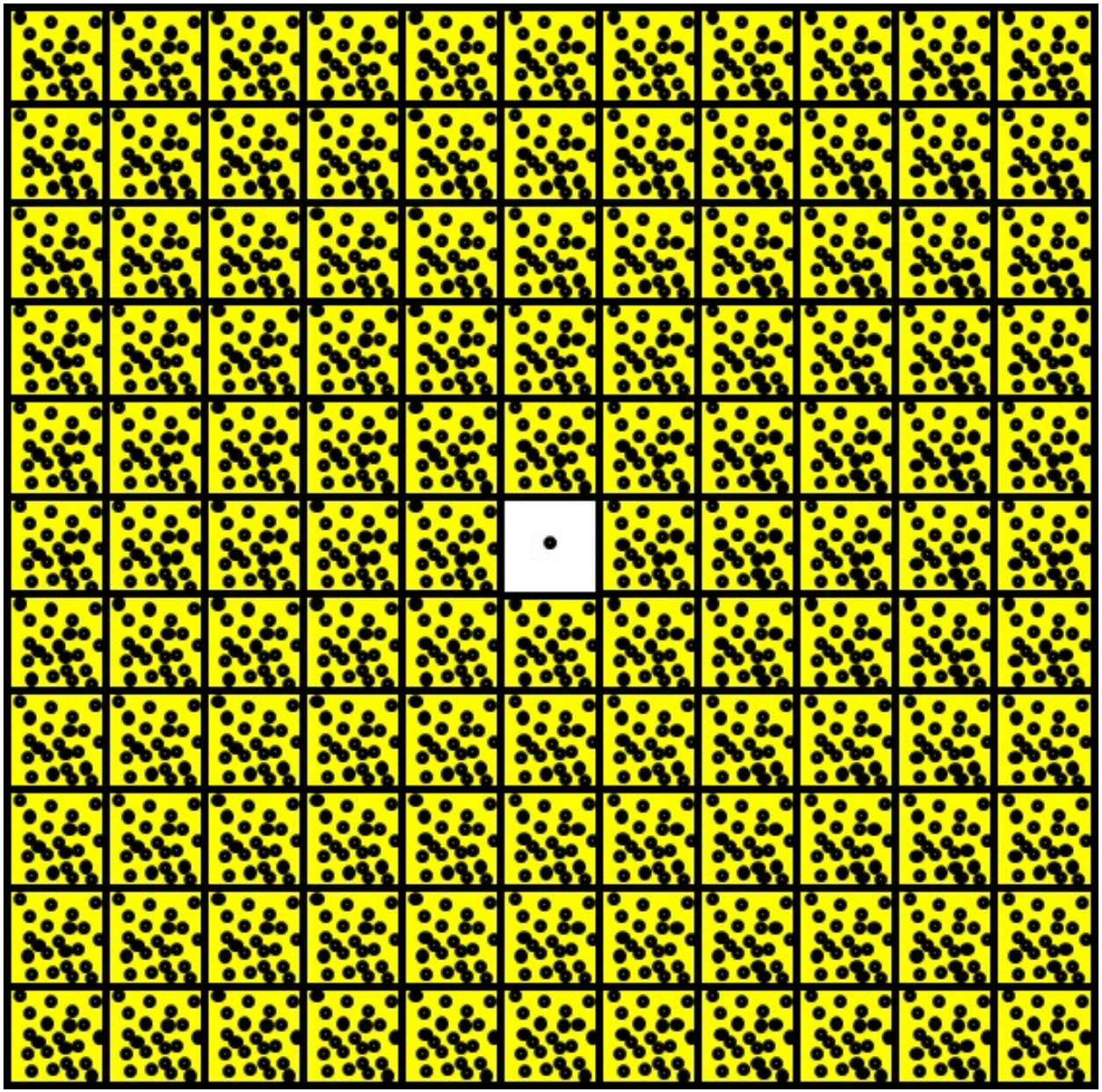
How U.S. And Russian Nuclear Arsenals Evolved

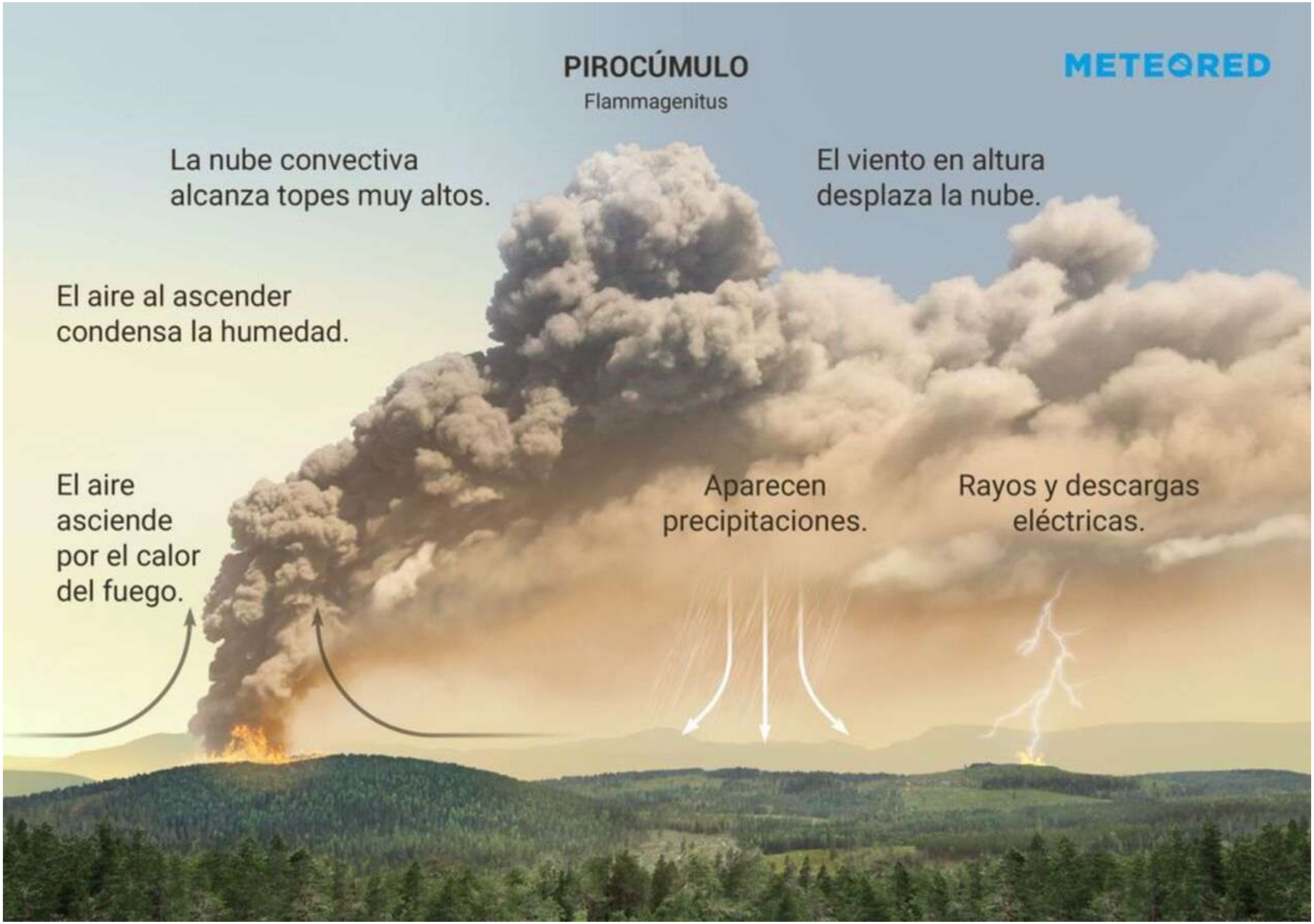
Estimated stockpiled nuclear warhead count by year*



* Excludes currently deployed warheads. Refers to active/inactive warheads in military custody and earmarked for future use.

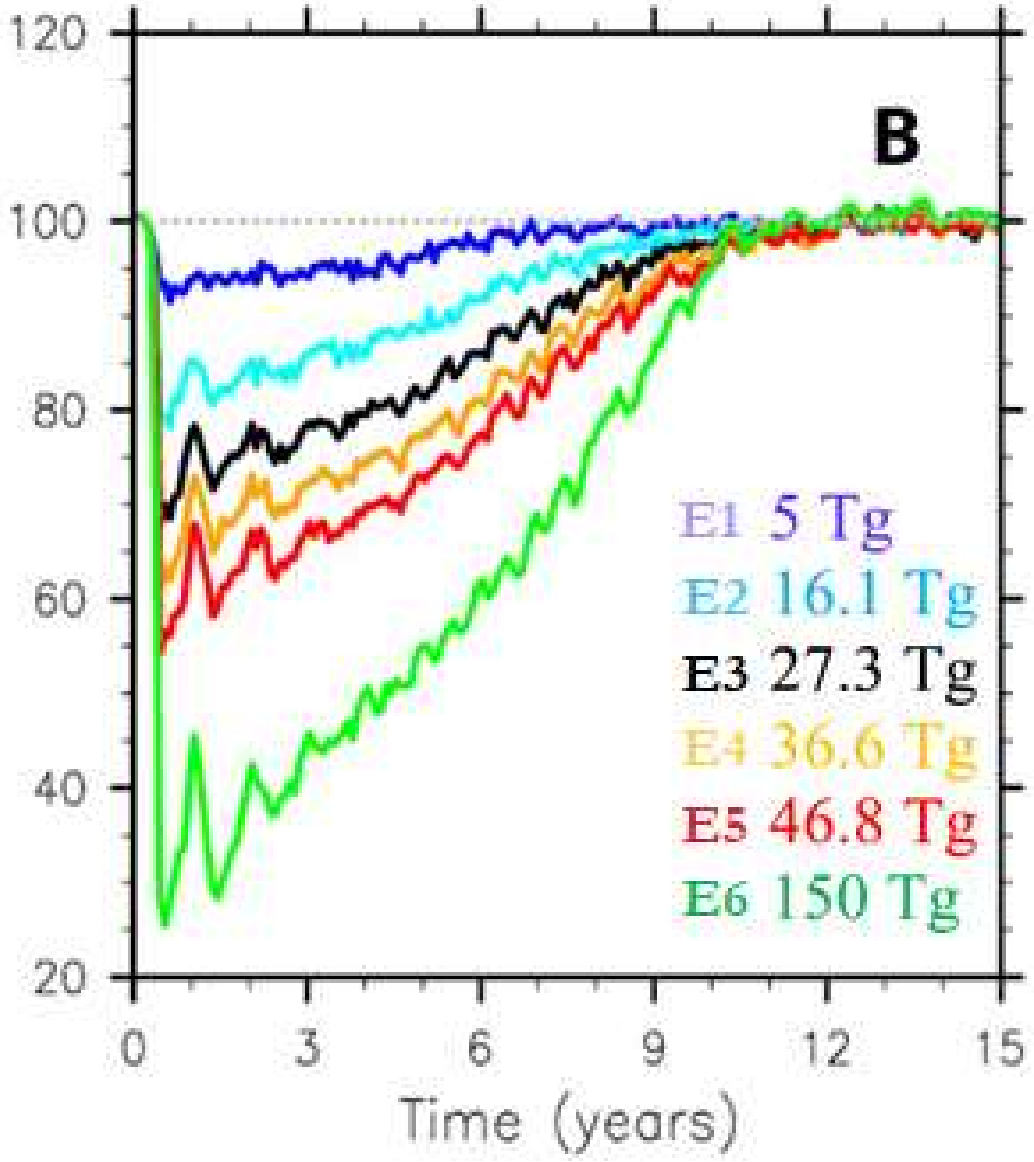
Source: Federation of American Scientists

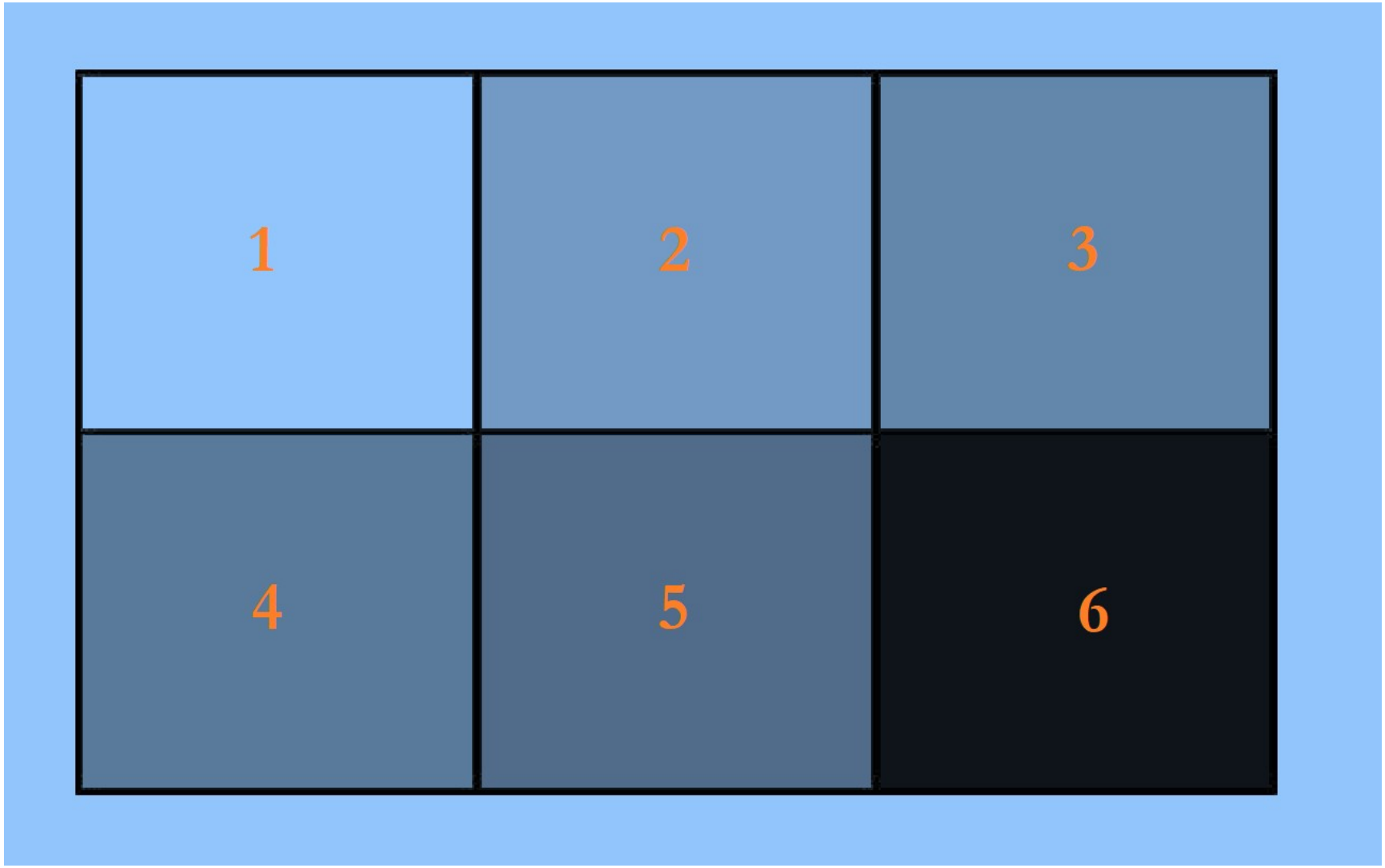



PIROCÚMULO
Flammagenitus
METEORED
La nube convectiva alcanza topes muy altos.
El viento en altura desplaza la nube.
El aire al ascender condensa la humedad.
El aire asciende por el calor del fuego.
Aparecen precipitaciones.
Rayos y descargas eléctricas.

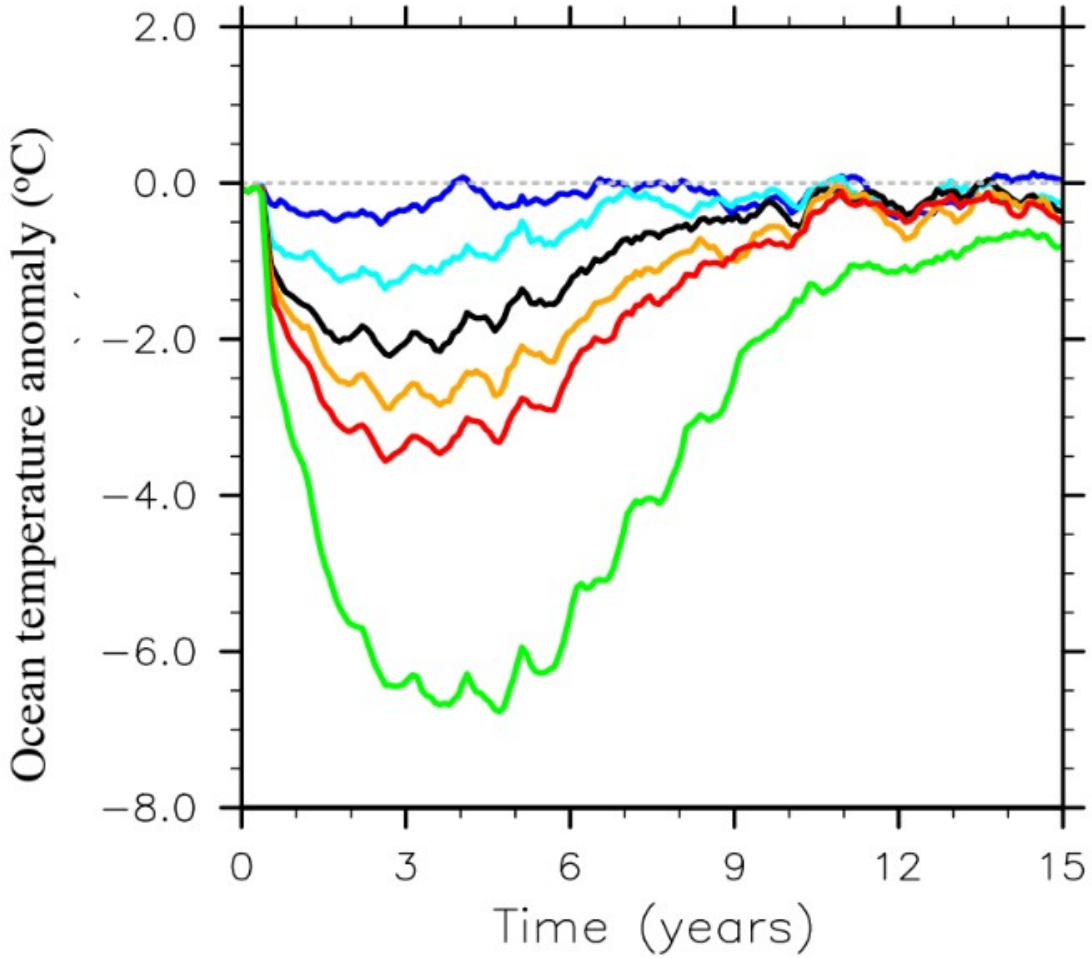
ESCENARIO	BELIGERANTES	ARMAS	FALLECIDOS	CENIZAS
1	India vs. Pakistán	100 ojivas 15 kt	27	5 Tg
2	India vs. Pakistán	295 ojivas 15 kt	52	16.1 Tg
3	India vs. Pakistán	295 ojivas 50 kt	97	27.3 Tg
4	India vs. Pakistán	295 ojivas 100 kt	127	36.6 Tg
5	EEUU vs. Rusia	1/3 arsenales	164	50 Tg
6	EEUU vs. Rusia	All-in	360	150 Tg

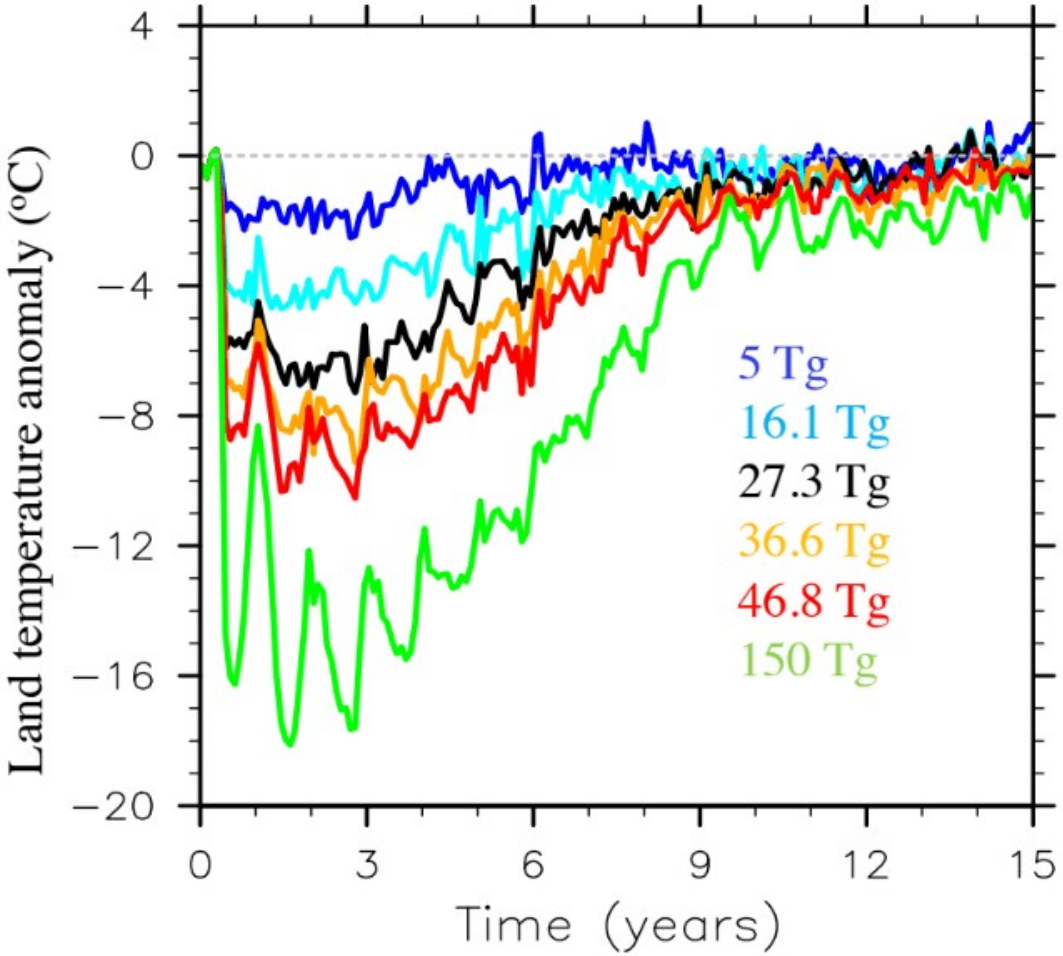
Toon et al., https://www.science.org/doi/10.1126/sciadv.aay5478



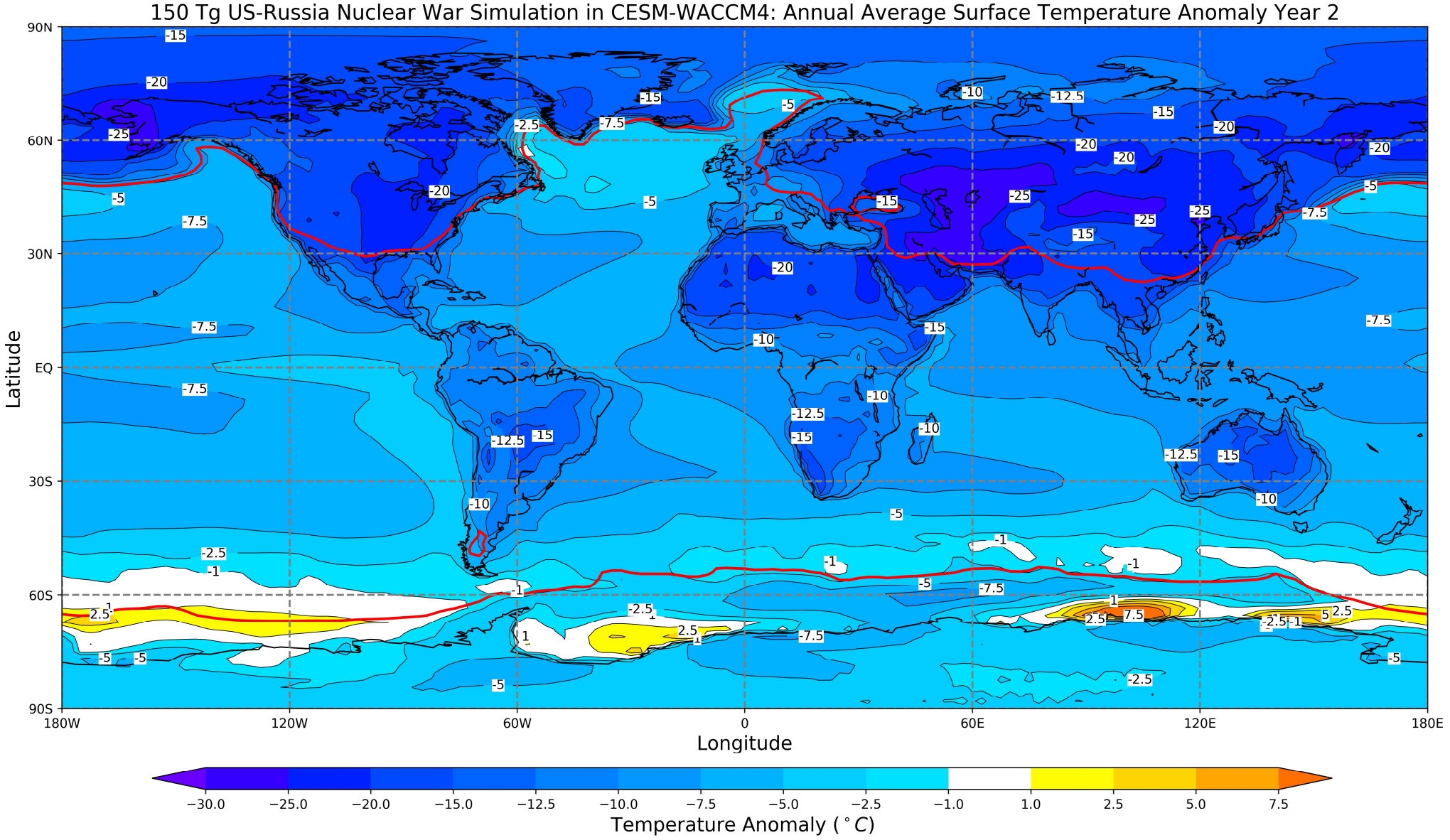

1
2
3
4
5
6

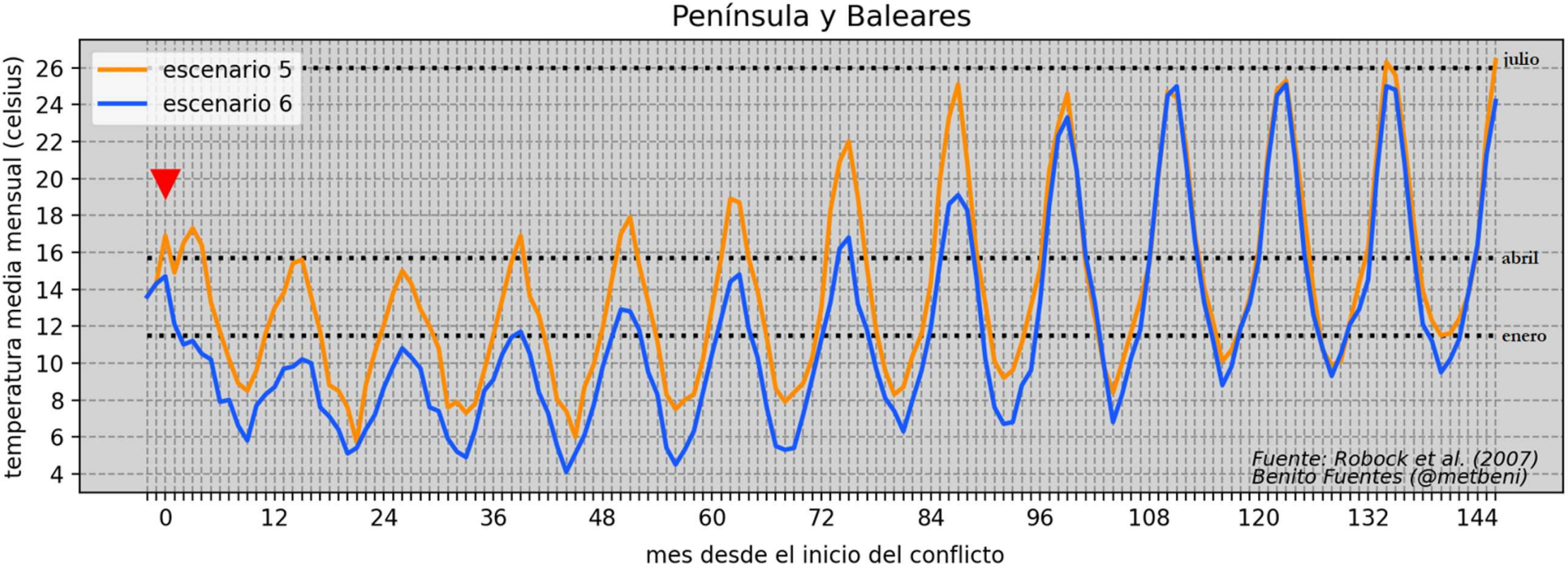
Toon et al., https://www.science.org/doi/10.1126/sciadv.aay5478

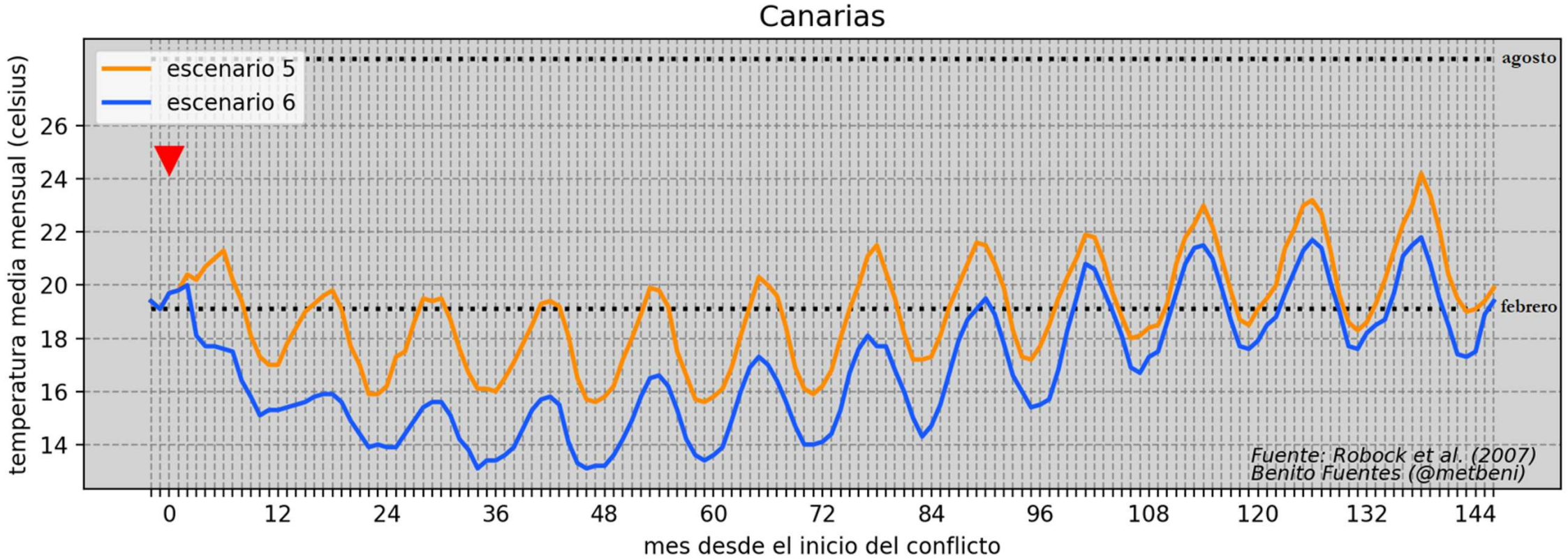




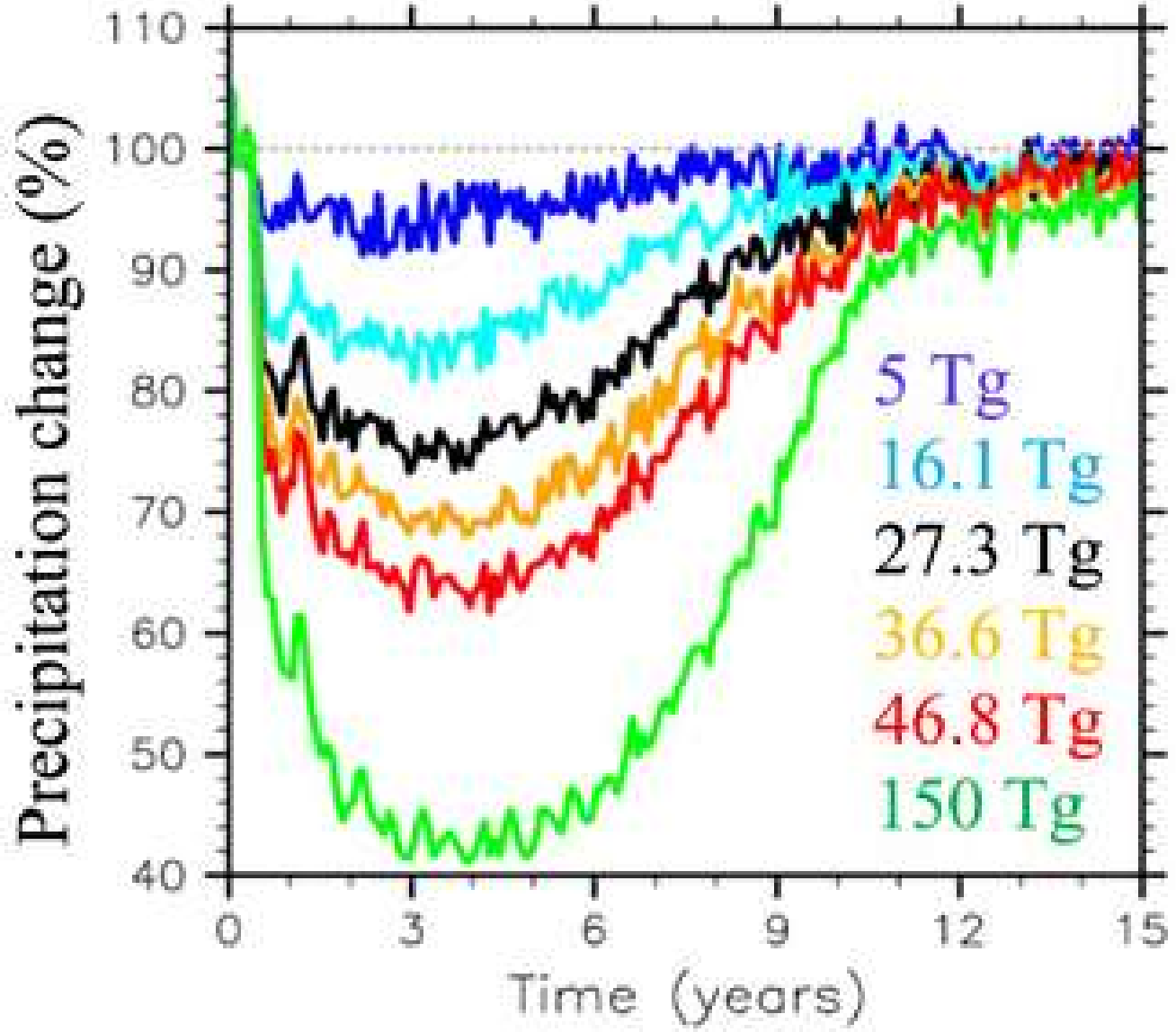
Robock et al., doi:10.1029/2006JD008235



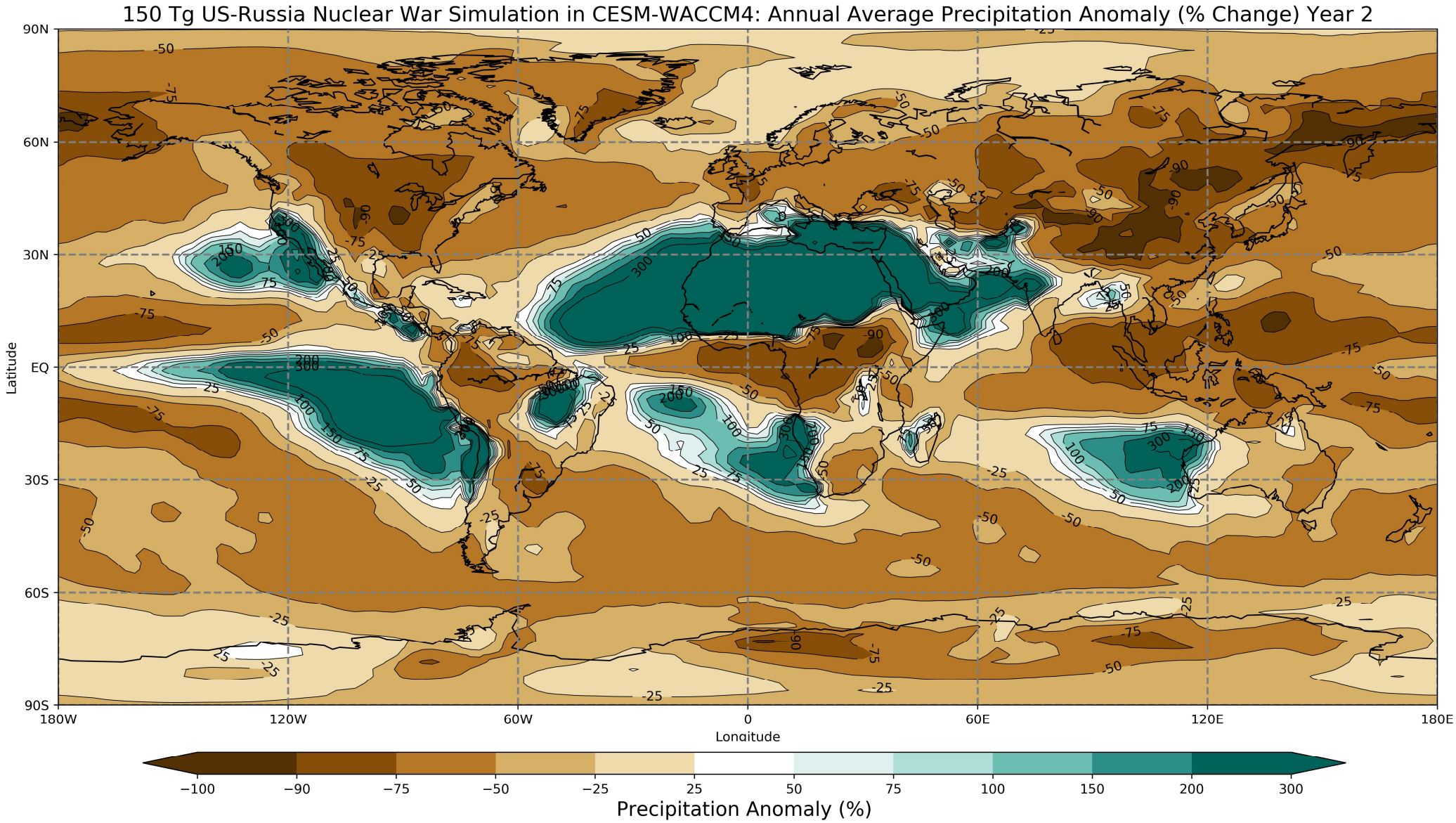

Península y Baleares
escenario 5
escenario 6
julio
abril
enero
temperatura media mensual (celsius)
mes desde el inicio del conflicto
Fuente: Robock et al. (2007)
Benito Fuentes (@metbeni)

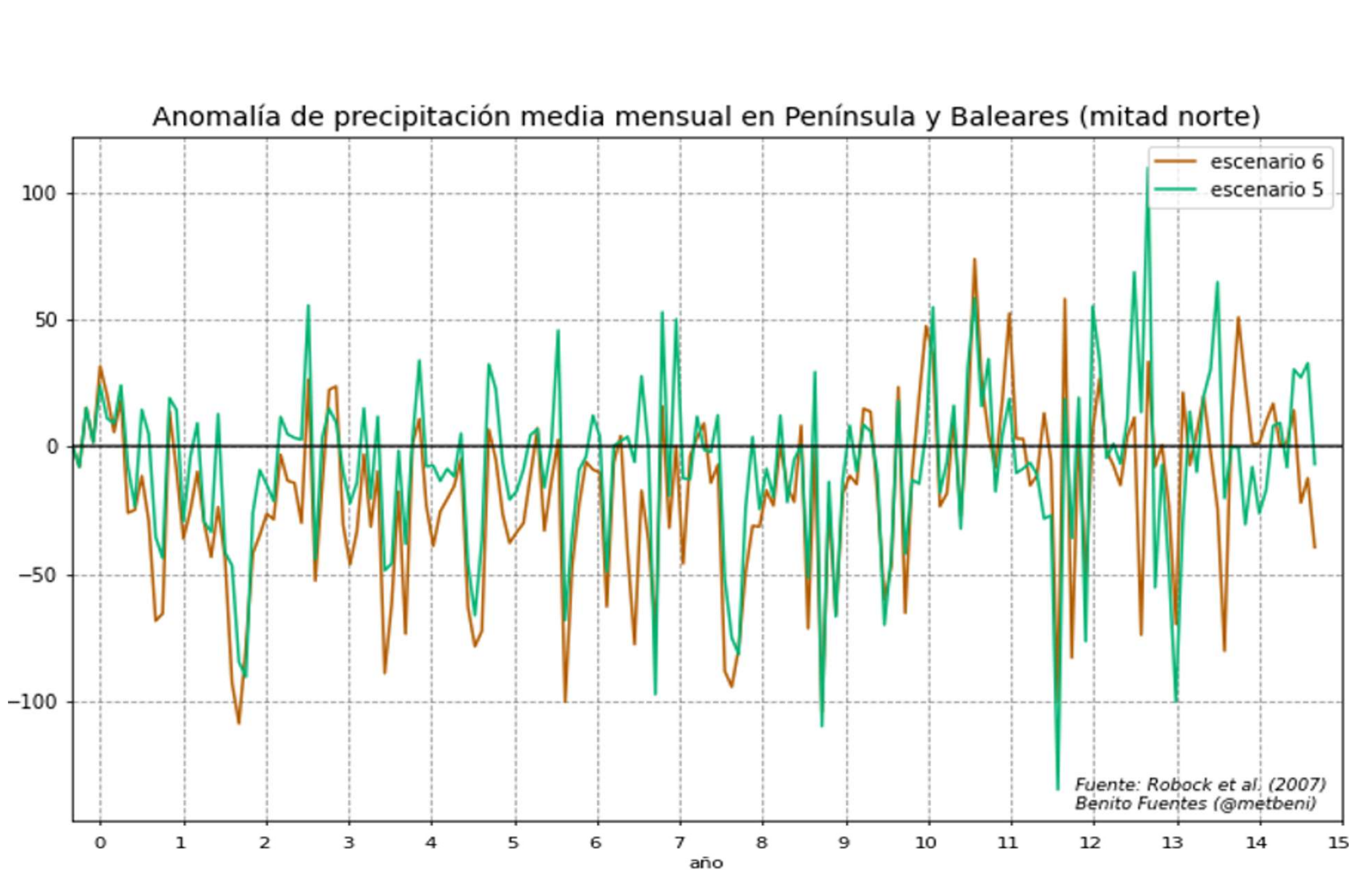

Canarias
escenario 5
escenario 6
agosto
febrero
temperatura media mensual (celsius)
26
24
22
20
18
16
14
0
12
24
36
48
60
72
84
96
108
120
132
144
mes desde el inicio del conflicto
Fuente: Robock et al. (2007)
Benito Fuentes (@metbeni)

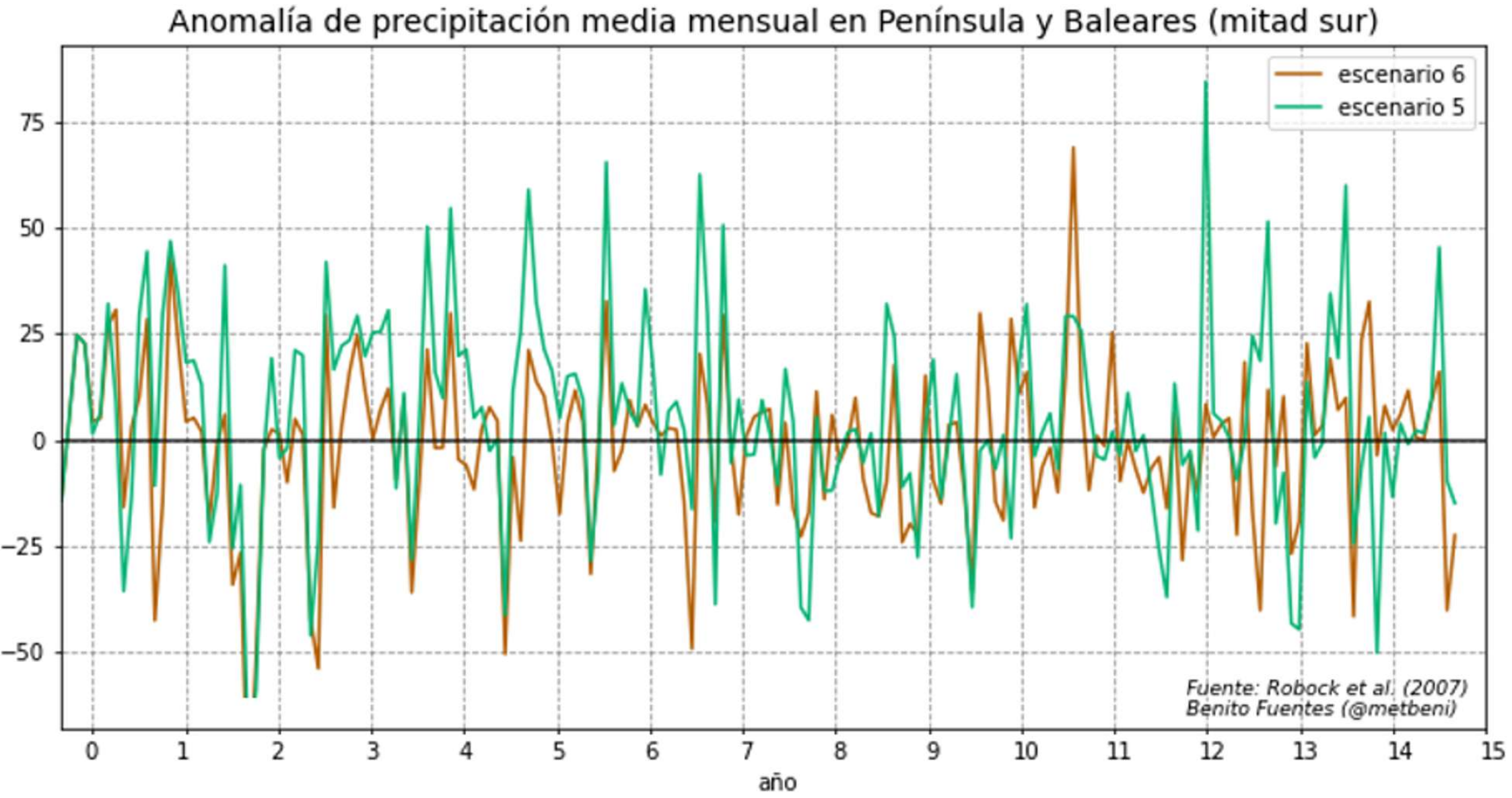
Toon et al., https://www.science.org/doi/10.1126/sciadv.aay5478

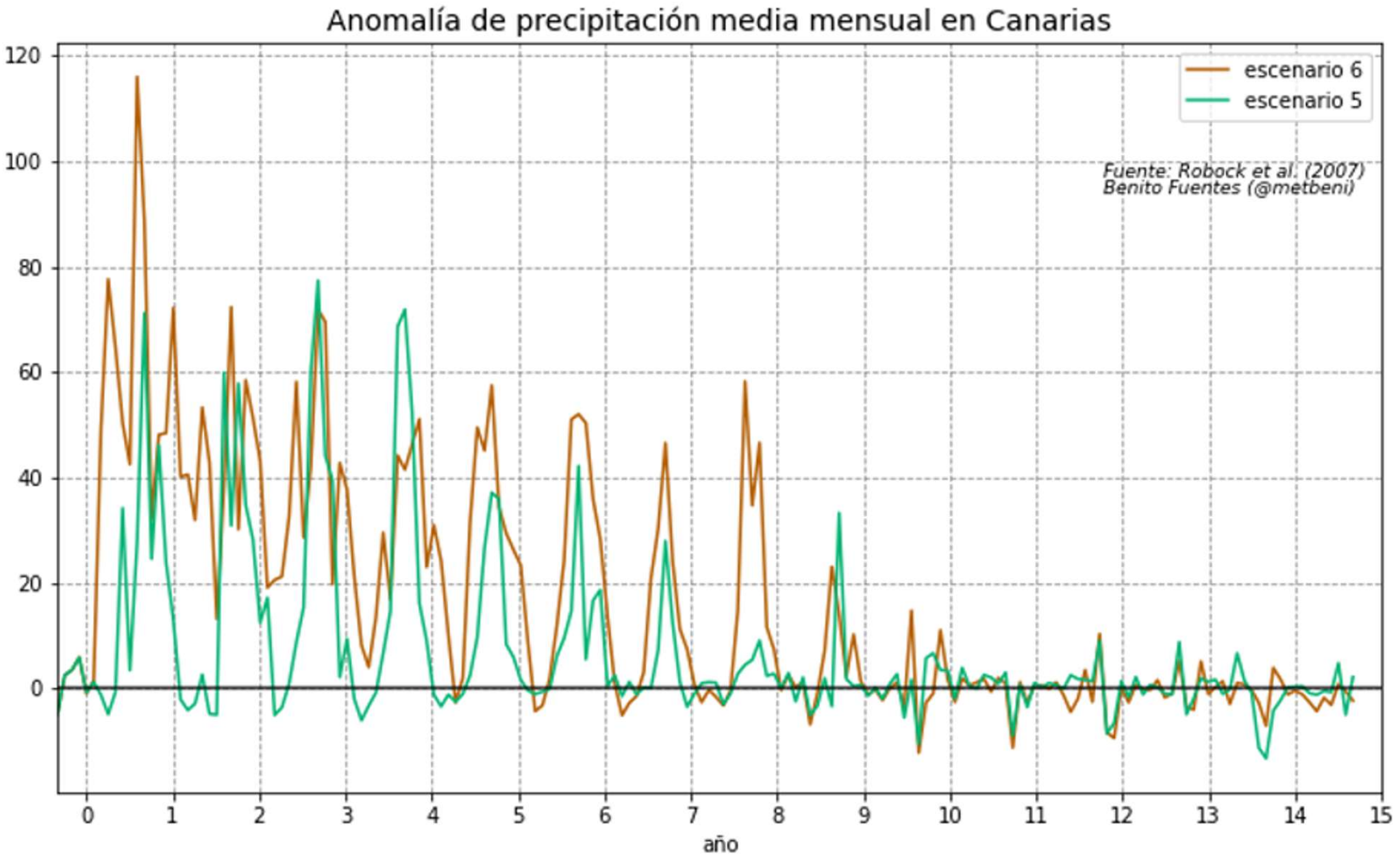


Robock et al., doi:10.1029/2006JD008235

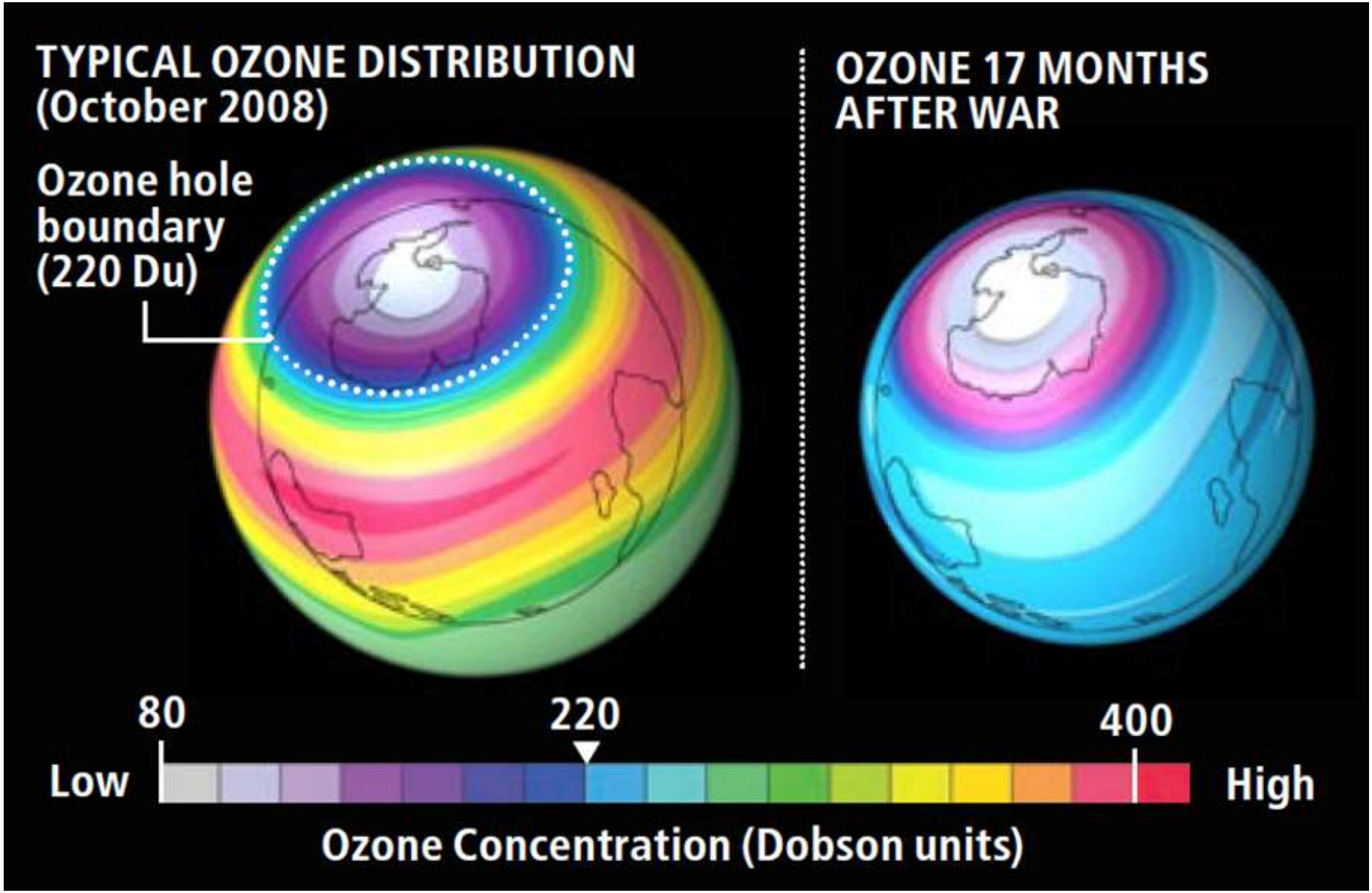



Anomalía de precipitación media mensual en Península y Baleares (mitad norte)
escenario 6
escenario 5
100
50
0
−50
−100
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
año
Fuente: Robock et al. (2007)
Benito Fuentes (@metbeni)


Anomalía de precipitación media mensual en Península y Baleares (mitad sur)
escenario 6
escenario 5
75
50
25
0
−25
−50
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
año
Fuente: Robock et al. (2007)
Benito Fuentes (@metbeni)

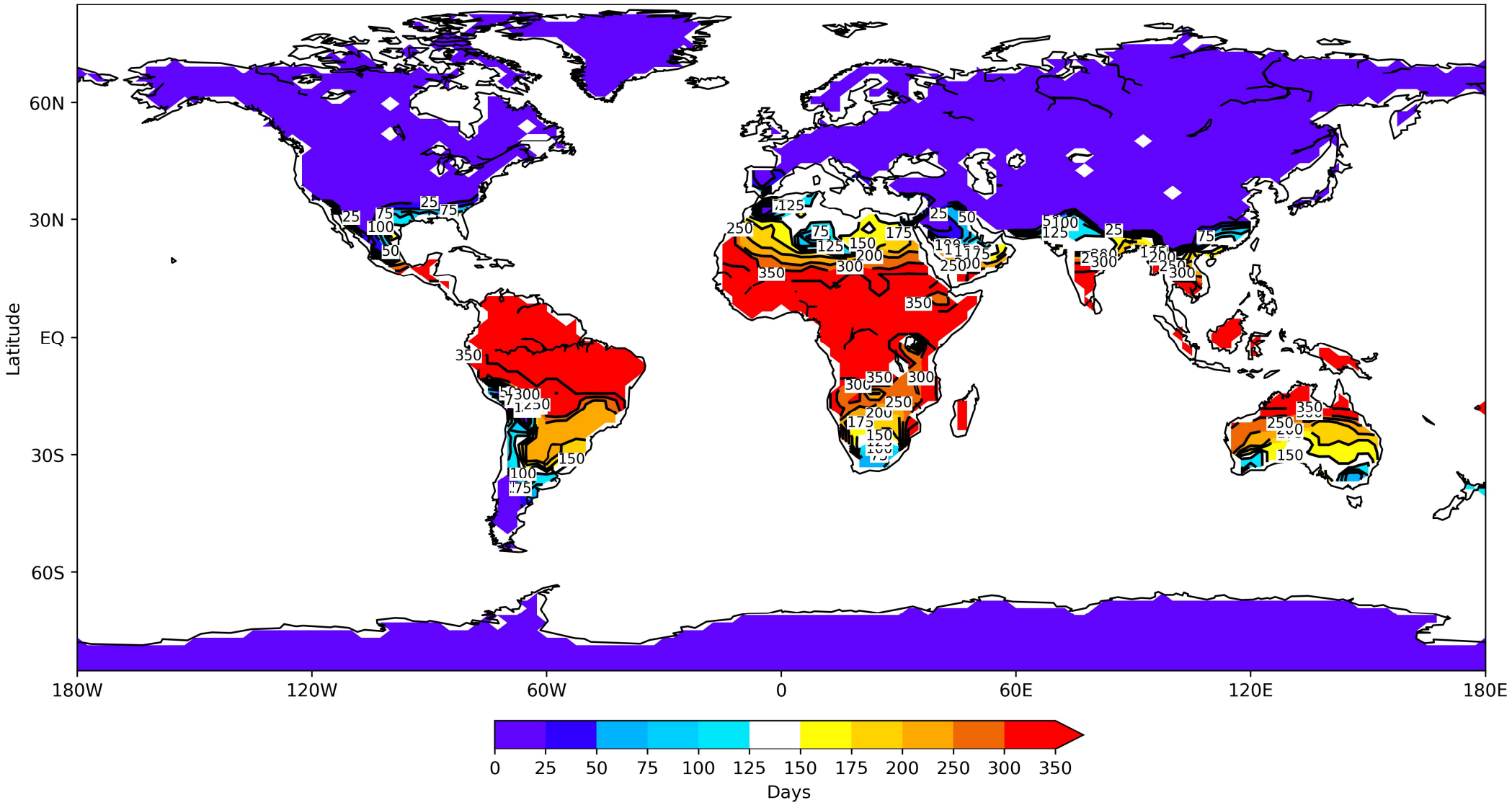

Anomalía de precipitación media mensual en Canarias
escenario 6
escenario 5
Fuente: Robock et al. (2007)
Benito Fuentes (@metbeni)
120
100
80
60
40
20
0
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
año

Mills et al., doi:10.1073/pnas.0710058105

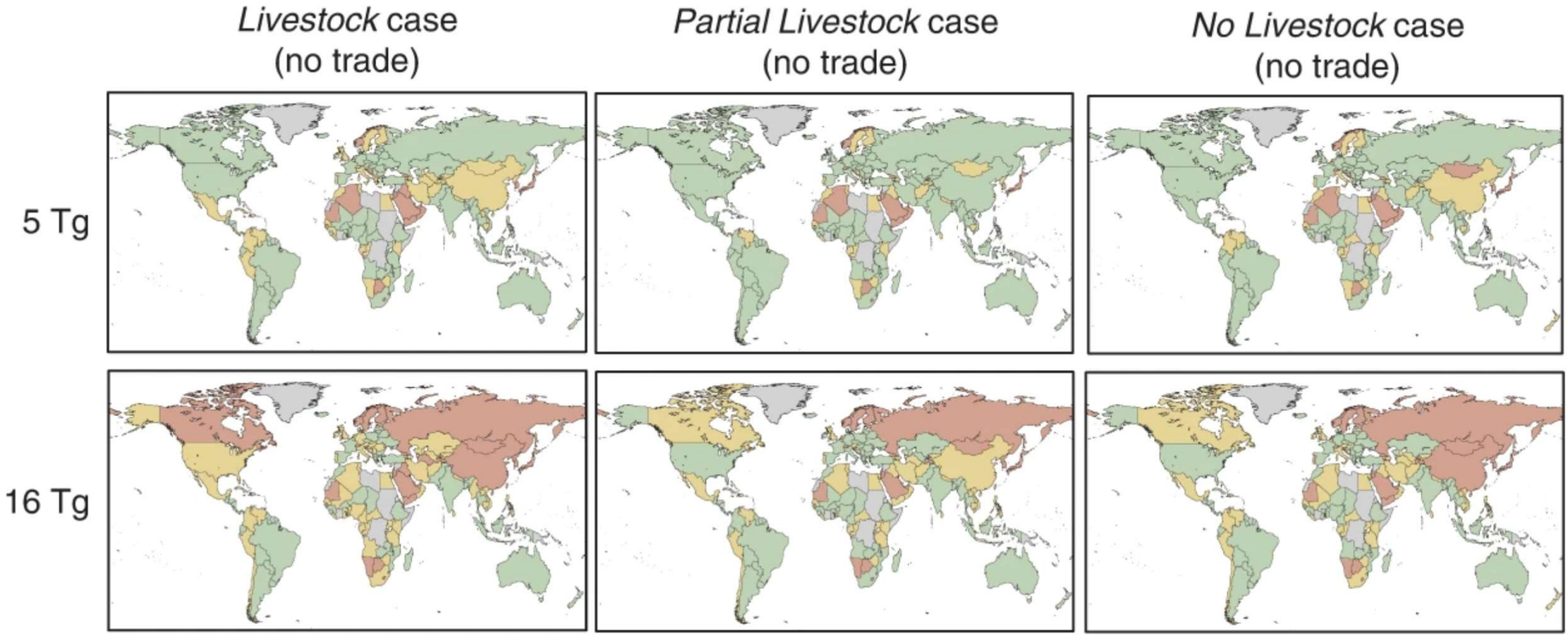


Robock et al., doi:10.1029/2006JD008235

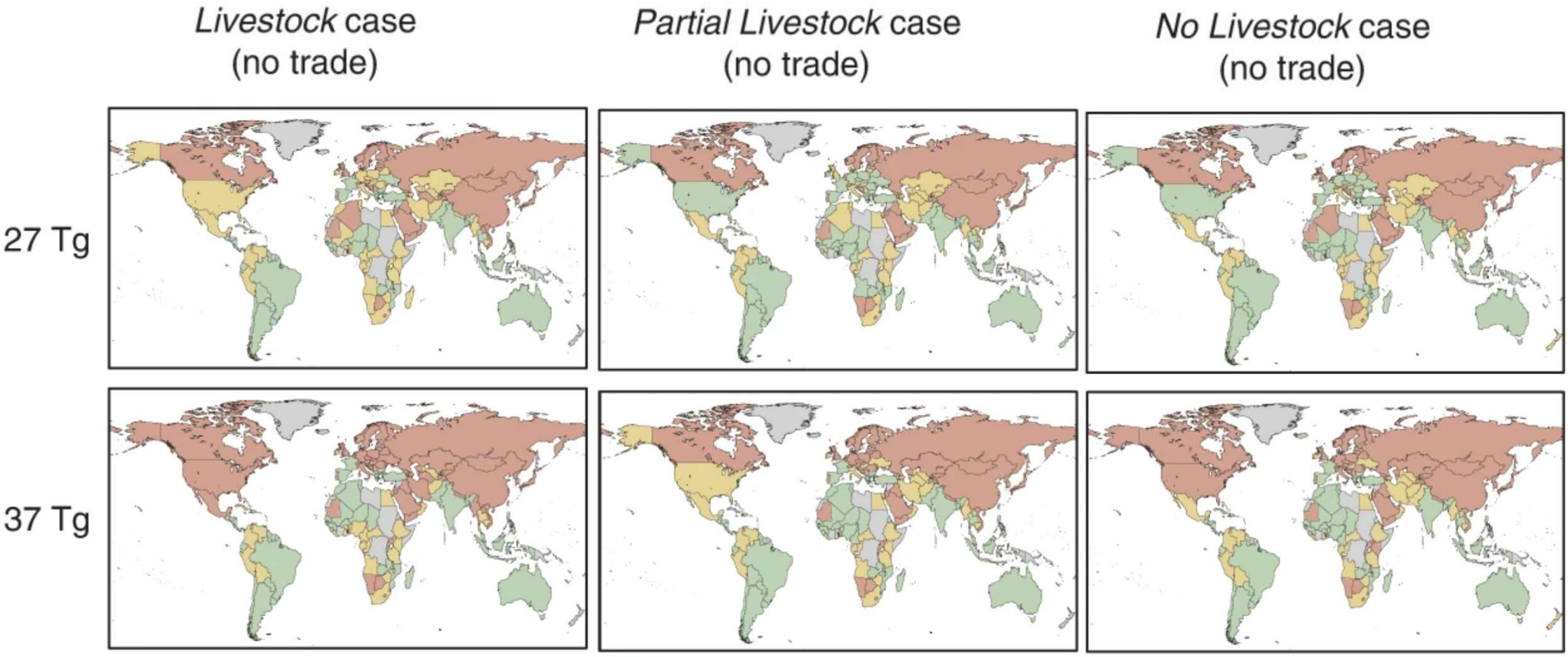
150 Tg US-Russia Nuclear War Simulation in CESM-WACCM4:
Growing Season Length, Year 01 in NH; 01-02 in SH



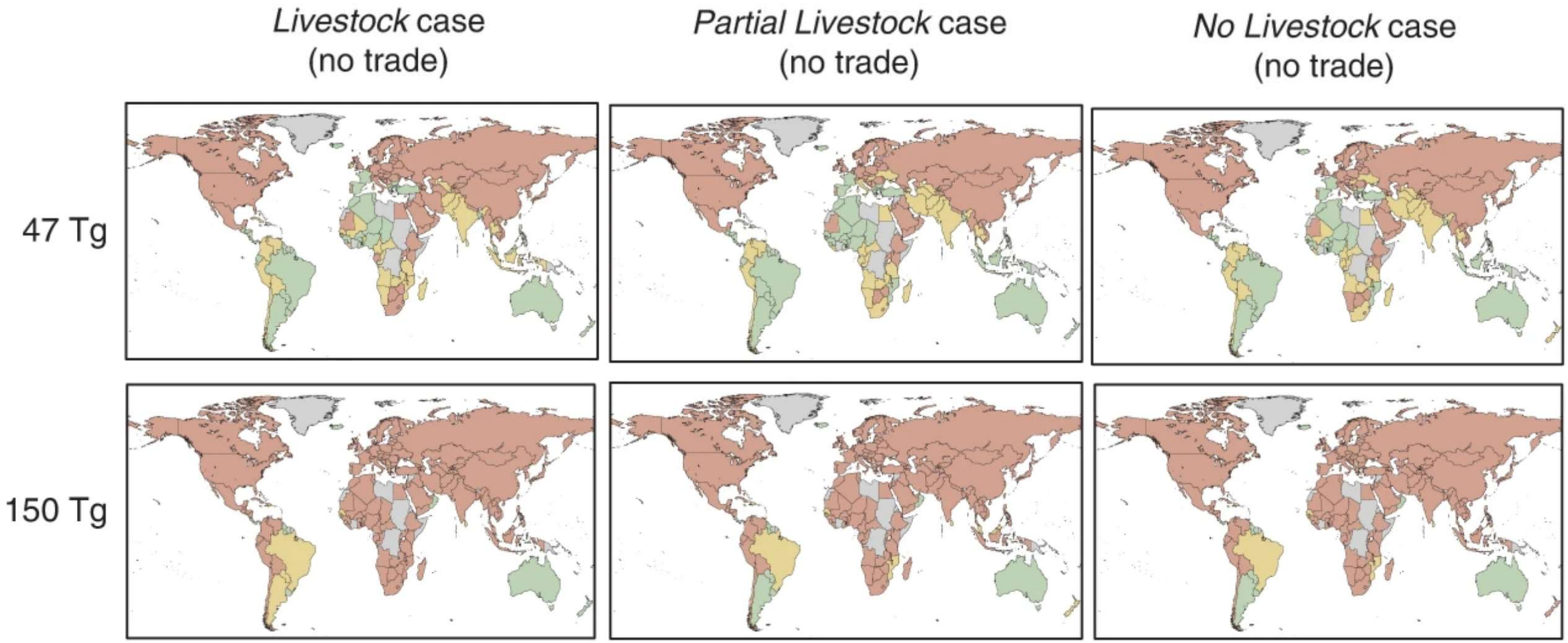
Robock et al., https://www.nature.com/articles/s43016-022-00573-0



Robock et al., https://www.nature.com/articles/s43016-022-00573-0



Robock et al., https://www.nature.com/articles/s43016-022-00573-0



Xia et al., https://doi.org/10.1038/s43016-022-00573-0

Escenario	**1**	**2**	**3**	**4**	**5**	**6**
Fallecidos en las explosiones	27	52	97	127	164	360
Personas sin alimento al final del segundo año	255	926	1426	2081	2512	5341
Porcentaje sobre la población total	4.2%	14.6%	22.7%	33%	40%	85.1%