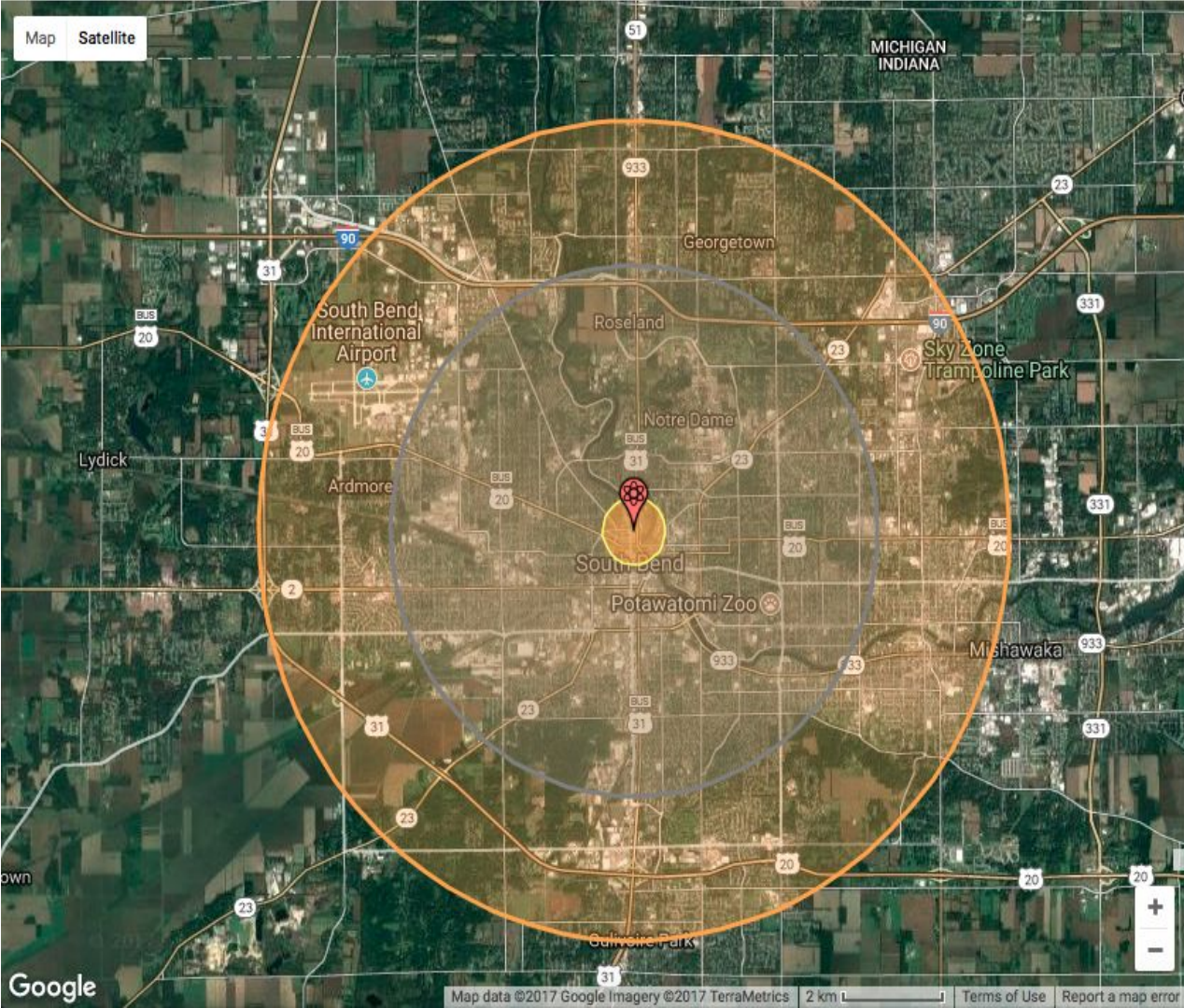


Nuclear Weapons

Or: How I learned To Stop Worrying And
Love the Bomb



Effects radii for 340 kiloton airburst* (smallest to largest): ▼

- **Fireball radius: 2,060 ft (0.48 mi²)**
 Maximum size of the nuclear fireball; relevance to lived effects depends on height of detonation. If it touches the ground, the amount of radioactive fallout is significantly increased. Minimum burst height for negligible fallout: 1,850 ft.
- **Air blast radius (5 psi): 3.05 mi (29.2 mi²)**
 At 5 psi overpressure, most residential buildings collapse, injuries are universal, fatalities are widespread. Optimal height of burst to maximize this effect is 1.35 mi.
- **Thermal radiation radius (3rd degree burns): 4.71 mi (69.6 mi²)**
 Third degree burns extend throughout the layers of skin, and are often painless because they destroy the pain nerves. They can cause severe scarring or disablement, and can require amputation. 100% probability for 3rd degree burns at this yield is 10.7 cal/cm².

*Detonation altitude: 7,150 ft. (Chosen to maximize the 5 psi range.)

The following errors were encountered trying to implement these settings:

- The blast pressure equation for 20 psi failed to give a result for the given yield and height settings. The maximum detonation height for this effect to be felt on the ground is 1.22 mi.
- The initial nuclear radiation equation for 500 rem failed to give a result for the given yield and height settings. The maximum detonation height for this effect to be felt on the ground is 1.35 mi.

Note: Rounding accounts for any inconsistencies in the above numbers.

» [Permanent link to these settings](#) «

WORLD NUCLEAR WEAPONS STOCKPILE



TOTAL NUCLEAR WEAPONS: 15,375



RUSSIA 7,000



USA 6,800

FRANCE 300

CHINA 260

UK 215

PAKISTAN 130

INDIA 120

ISRAEL 80

NORTH KOREA < 15

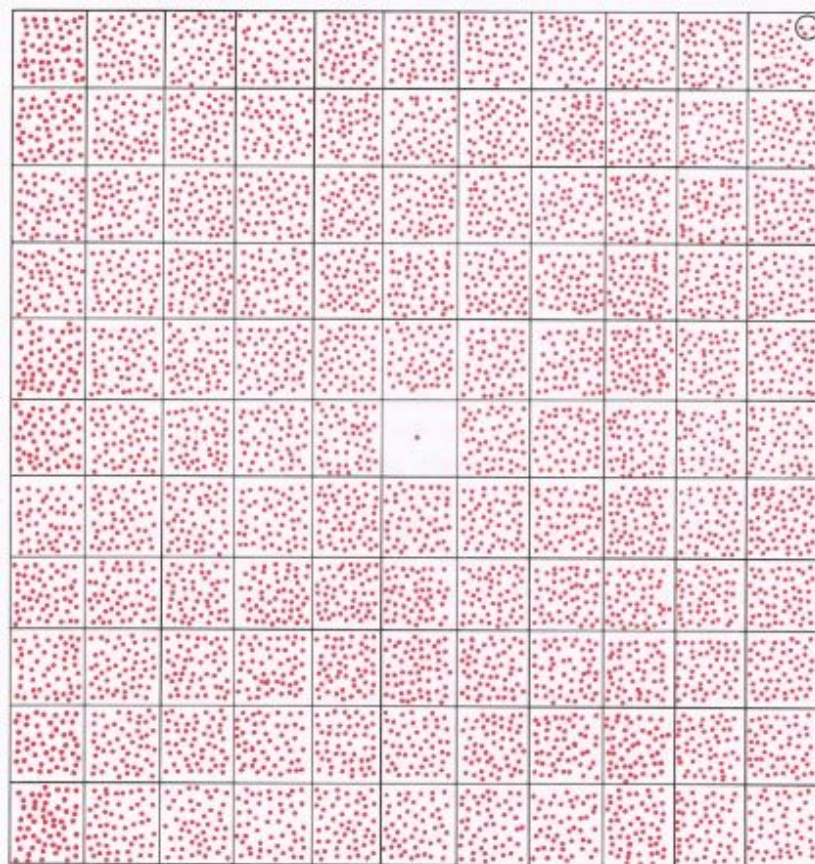
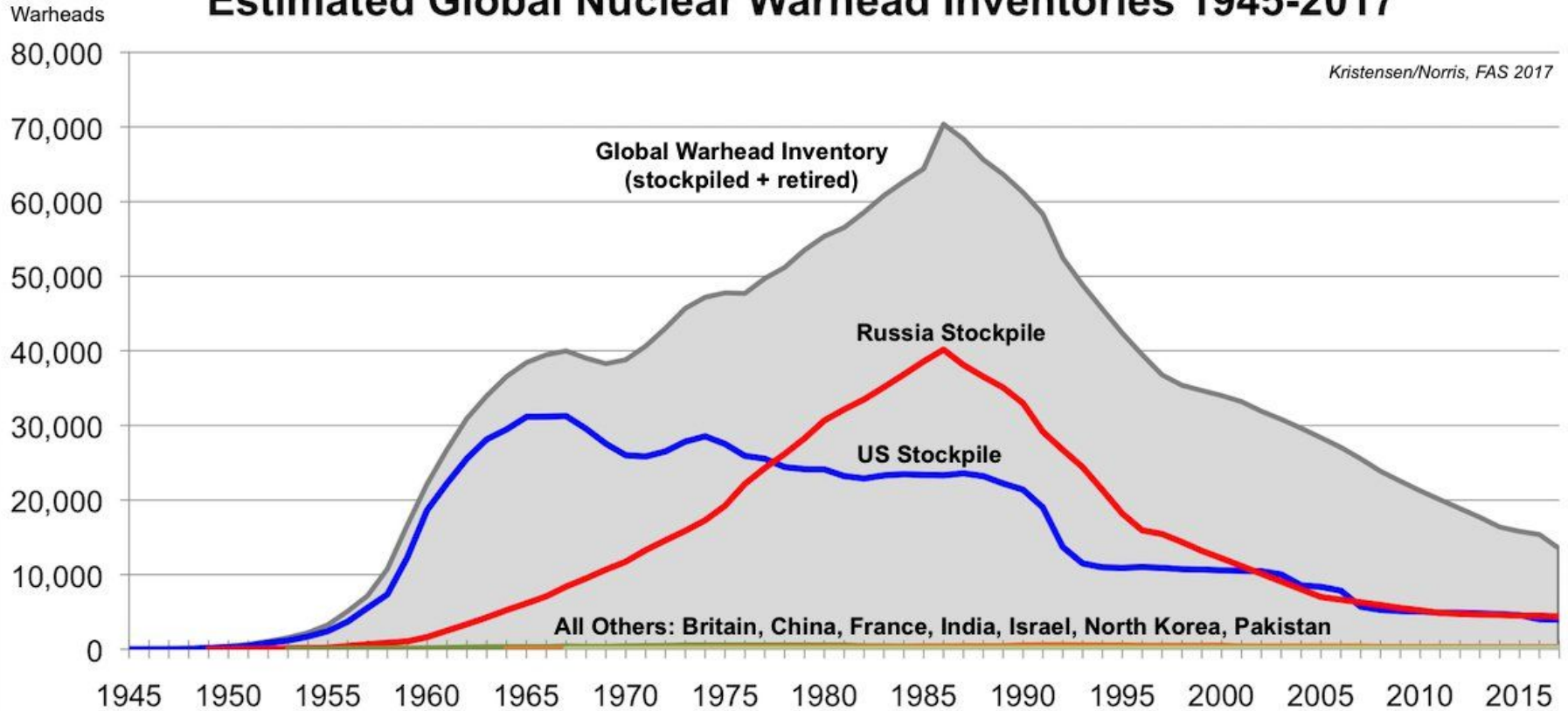


Fig.1.1 Nuclear firepower

The dot in the centre represents all the firepower of World War II. The other dots represent the firepower of existing nuclear weapons. The top right circle represents the weapons on one Poseidon submarine. It is equal to the firepower of three world wars.

Source: Toronto Star, 24 January 1982.

Estimated Global Nuclear Warhead Inventories 1945-2017





<http://www.wsj.com/video/opinion-journal-why-we-still-need-nuclear-weapons/C29CEC6F-1260-435C-BBC4-8ED76B4F3D0E.html>

Questions

- Do nuclear weapons make the world safer?
- Can we ever totally get rid of nuclear weapons?
- Are nuclear weapons inherently immoral?

Questions

- Is a deterrence strategy immoral?
- Can nuclear weapons ever be used again?
- Do nuclear weapons make war itself less likely?

Questions

- Is how they are used important?
- Should more countries have nuclear weapons?
- Do existing nuclear powers have the right to stop proliferation?
- Was the use of nuclear weapons against Japan justified?