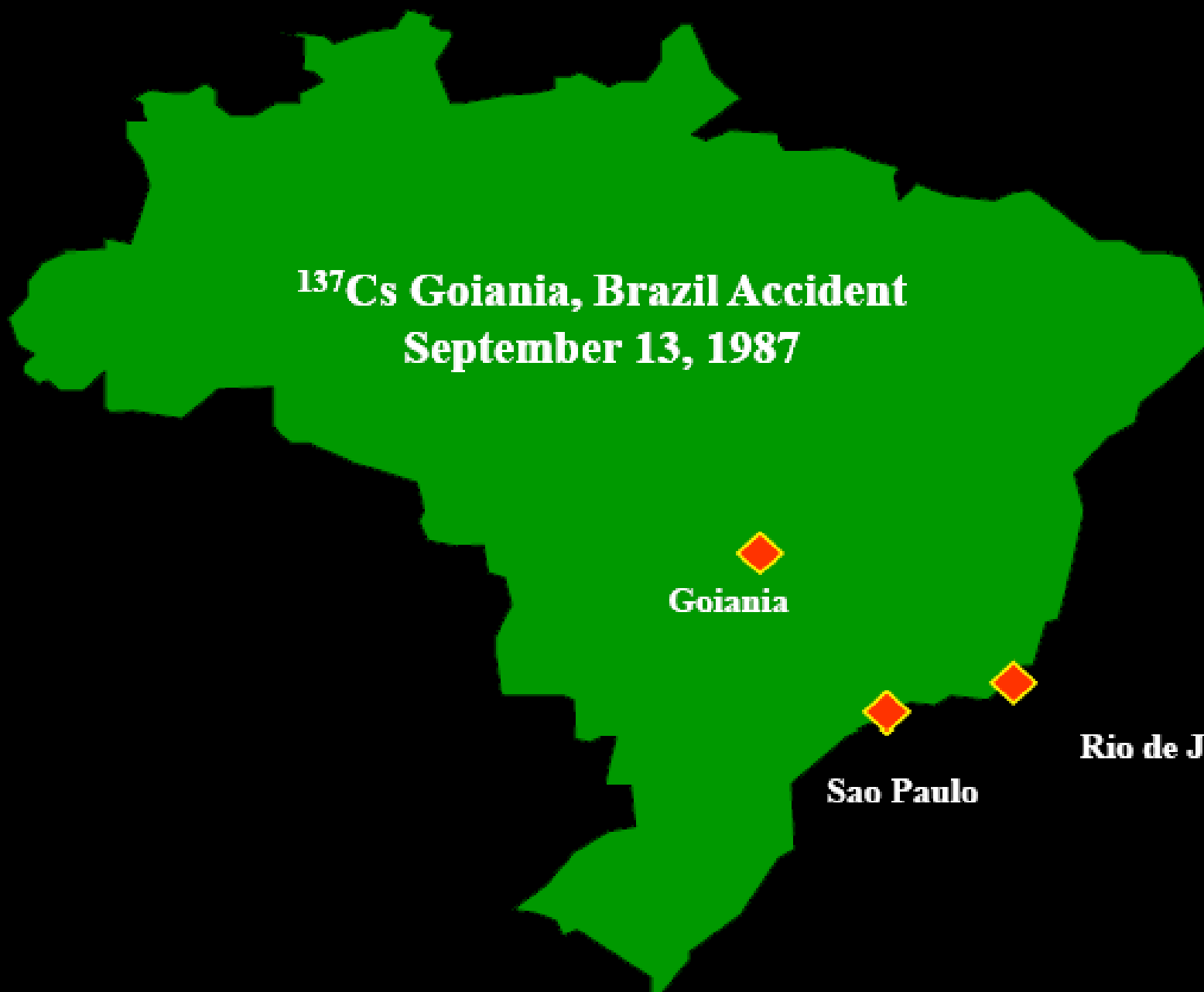


**^{137}Cs Goiania, Brazil Accident
September 13, 1987**

Goiania

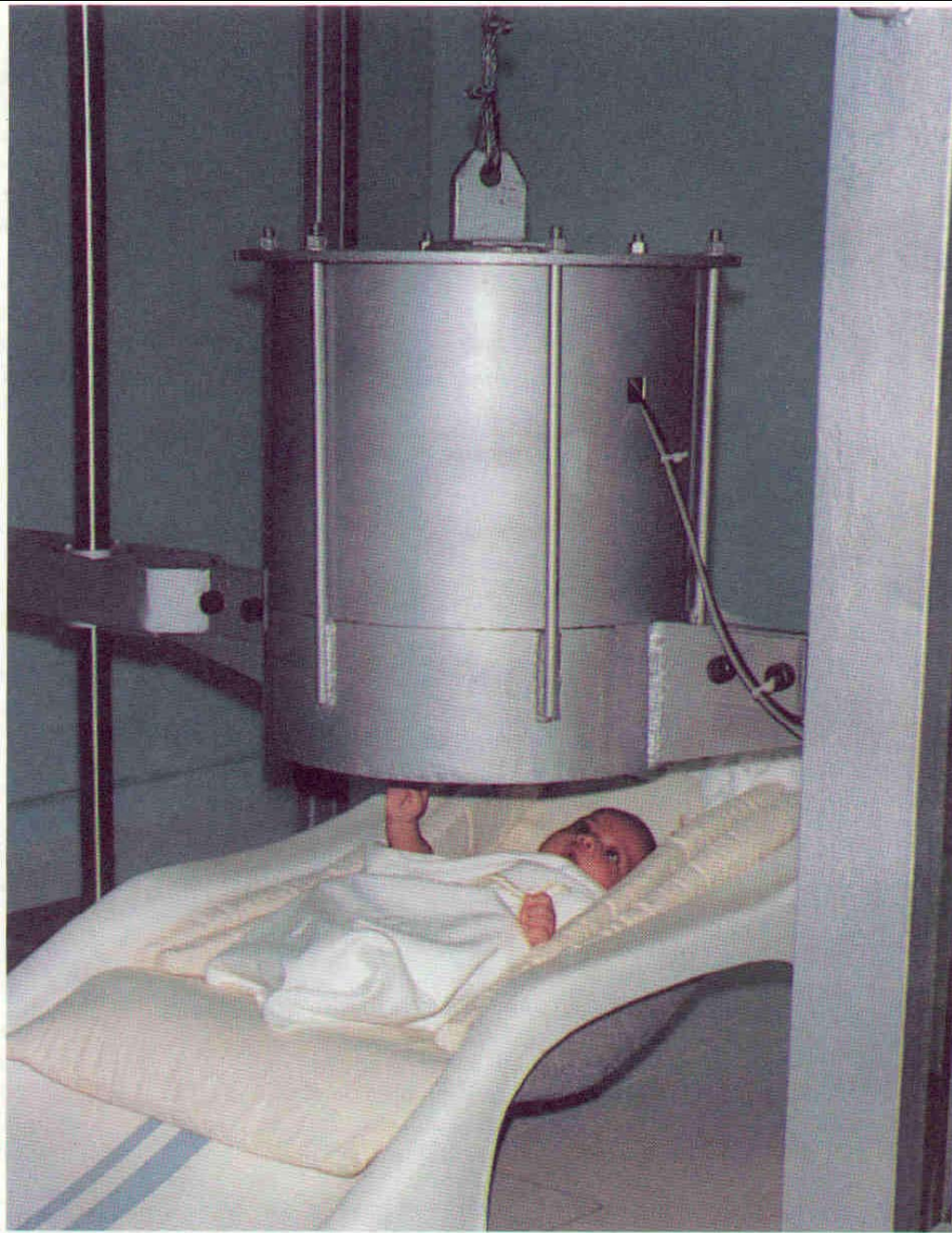
Sao Paulo

Rio de Janeiro



Goiânia, Brazil, 1987 Population 1.3 million





The radiation source

UN-INTENDED COMPARABLE INCIDENTS

1987, GOIANIA, BRAZIL

- A scrap merchant stole and cut open a radiation therapy source from a hospital
- The radioactive dust (~50 g) was tracked throughout Goiania
- Four died and nearly two hundred people were exposed to high dose of X-ray
- More than 100,000 people (10%) population demanded screening
- Decontamination took 6 months created the 5,000 m² of waste
- The long-term socio-economic effects were devastating



1995, MOSCOW

- Chechnyan rebels directed a TV reporter to a park in central Moscow
- She found a package containing ~15kg of explosives and Cesium-137
- This was the first confirmed case of a dirty bomb

1987, Iraq:

- Iraq tested a crude radiological device in 1987 according to frequently cited intelligence reports

