由于追求最少，故而假设：

没有风

地表全为平原

炸毁地球表面即为炸毁地球

使用的核弹为沙皇氢弹（50Mt）

取试爆点为最大杀伤半径

运用[NUKEMAP by Alex Wellerstein (nuclearsecrecy.com)](https://nuclearsecrecy.com/nukemap/)这一网站在平原进行模拟试炸，取三组平均值

# 东京：

Fireball radius: 4.62 [km](https://nuclearsecrecy.com/nukemap/) (67.1 [km](https://nuclearsecrecy.com/nukemap/)²)  
Maximum size of the nuclear fireball; relevance to damage on the ground depends on the height of detonation. If it touches the ground, the amount of radioactive fallout is significantly increased. Anything inside the fireball is effectively vaporized. Minimum burst height for

negligible fallout: 4.16 [km](https://nuclearsecrecy.com/nukemap/).

Radiation radius (500 rem): 5.05 [km](https://nuclearsecrecy.com/nukemap/) (80.2 [km](https://nuclearsecrecy.com/nukemap/)²)  
500 rem ionizing radiation dose; likely fatal, in about 1 month; 15% of survivors will eventually die of cancer as a result of exposure.

Heavy blast damage radius (20 psi): 10.4 [km](https://nuclearsecrecy.com/nukemap/) (339 [km](https://nuclearsecrecy.com/nukemap/)²)  
At 20 psi overpressure, heavily built concrete buildings are severely damaged or demolished; fatalities approach 100%. Often used as a benchmark for **heavy** damage in cities. Optimal height of burst to maximize this effect is 6.7 [km](https://nuclearsecrecy.com/nukemap/).

Moderate blast damage radius (5 psi): 25.6 [km](https://nuclearsecrecy.com/nukemap/) (2,070 [km](https://nuclearsecrecy.com/nukemap/)²)  
At 5 psi overpressure, most residential buildings collapse, injuries are universal, fatalities are widespread. The chances of a fire starting in commercial and residential damage are high, and buildings so damaged are at high risk of spreading fire. Often used as a benchmark for **moderate** damage in cities. Optimal height of burst to maximize this effect is 11.5 [km](https://nuclearsecrecy.com/nukemap/).

Thermal radiation radius (3rd degree burns): 60.1 [km](https://nuclearsecrecy.com/nukemap/) (11,350 [km](https://nuclearsecrecy.com/nukemap/)²)  
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 13.6 cal/cm2.

Light blast damage radius (1 psi): 79.8 [km](https://nuclearsecrecy.com/nukemap/) (20,030 [km](https://nuclearsecrecy.com/nukemap/)²)  
At a around 1 psi overpressure, glass windows can be expected to break. This can cause many injuries in a surrounding population who comes to a window after seeing the flash of a nuclear explosion (which travels faster than the pressure wave). Often used as a benchmark for **light** damage in cities. Optimal height of burst to maximize this effect is 17.2 [km](https://nuclearsecrecy.com/nukemap/).

火球半径：4.62 km（67.1 km²）

核火球的最大尺寸；与地面损伤的相关性取决于爆炸高度。如果它接触到地面，放射性沉降物的数量会显著增加。火球内的任何东西都会有效地蒸发。最小爆破高度

可忽略的沉降物：4.16公里。

辐射半径（500雷姆）：5.05 km（80.2 km²）

500雷姆电离辐射剂量；可能致命，约1个月；15%的幸存者最终会因暴露而死于癌症。

重爆炸损伤半径（20 psi）：10.4 km（339 km²）

在20磅/平方英寸的超压下，严重建造的混凝土建筑遭到严重破坏或拆除；死亡人数接近100%。通常用作城市严重破坏的基准。使这种效应最大化的最佳爆破高度为6.7千米。

中等爆炸损伤半径（5 psi）：25.6 km（2070 km²）

在5磅/平方英寸的超压下，大多数住宅楼倒塌，普遍受伤，死亡人数普遍。商业和住宅受损引发火灾的可能性很高，受损的建筑物有很高的火灾蔓延风险。通常被用作城市中中度破坏的基准。使这种效应最大化的最佳爆破高度为11.5 km。

热辐射半径（三度烧伤）：60.1 km（11350 km²）

三度烧伤遍及皮肤的各个层，通常是无痛的，因为它们会破坏疼痛神经。它们会造成严重的疤痕或残疾，并可能需要截肢。在此产量下，三度烧伤的100%概率为13.6cal/cm2。

轻微爆炸损伤半径（1 psi）：79.8 km（20030 km²）

在大约1 psi的超压下，玻璃窗可能会破裂。这可能会导致周围人群中的许多人受伤，他们在看到核爆炸的闪光（其传播速度比压力波快）后来到窗口。通常被用作城市光损害的基准。使这种效应最大化的最佳爆破高度为17.2km。

# 莫斯科

Fireball radius: 4.62 [km](https://nuclearsecrecy.com/nukemap/) (67.1 [km](https://nuclearsecrecy.com/nukemap/)²)

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Radiation radius (500 rem): 5.05 [km](https://nuclearsecrecy.com/nukemap/) (80.2 [km](https://nuclearsecrecy.com/nukemap/)²)  
500 rem ionizing radiation dose; likely fatal, in about 1 month; 15% of survivors will eventually die of cancer as a result of exposure.

Heavy blast damage radius (20 psi): 10.4 [km](https://nuclearsecrecy.com/nukemap/) (339 [km](https://nuclearsecrecy.com/nukemap/)²)  
At 20 psi overpressure, heavily built concrete buildings are severely damaged or demolished; fatalities approach 100%. Often used as a benchmark for **heavy** damage in cities. Optimal height of burst to maximize this effect is 6.7 [km](https://nuclearsecrecy.com/nukemap/).

Moderate blast damage radius (5 psi): 25.6 [km](https://nuclearsecrecy.com/nukemap/) (2,070 [km](https://nuclearsecrecy.com/nukemap/)²)  
At 5 psi overpressure, most residential buildings collapse, injuries are universal, fatalities are widespread. The chances of a fire starting in commercial and residential damage are high, and buildings so damaged are at high risk of spreading fire. Often used as a benchmark for **moderate** damage in cities. Optimal height of burst to maximize this effect is 11.5 [km](https://nuclearsecrecy.com/nukemap/).

Thermal radiation radius (3rd degree burns): 60.1 [km](https://nuclearsecrecy.com/nukemap/) (11,350 [km](https://nuclearsecrecy.com/nukemap/)²)  
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 13.6 cal/cm2.

Light blast damage radius (1 psi): 79.8 [km](https://nuclearsecrecy.com/nukemap/) (20,030 [km](https://nuclearsecrecy.com/nukemap/)²)  
At a around 1 psi overpressure, glass windows can be expected to break. This can cause many injuries in a surrounding population who comes to a window after seeing the flash of a nuclear explosion (which travels faster than the pressure wave). Often used as a benchmark for **light** damage in cities. Optimal height of burst to maximize this effect is 17.2 [km](https://nuclearsecrecy.com/nukemap/).

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辐射半径（500雷姆）：5.05 km（80.2 km²）

500雷姆电离辐射剂量；可能致命，约1个月；15%的幸存者最终会因暴露而死于癌症。

重爆炸损伤半径（20 psi）：10.4 km（339 km²）

在20磅/平方英寸的超压下，严重建造的混凝土建筑遭到严重破坏或拆除；死亡人数接近100%。通常用作城市严重破坏的基准。使这种效应最大化的最佳爆破高度为6.7千米。

中等爆炸损伤半径（5 psi）：25.6 km（2070 km²）

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三度烧伤遍及皮肤的各个层，通常是无痛的，因为它们会破坏疼痛神经。它们会造成严重的疤痕或残疾，并可能需要截肢。在此产量下，三度烧伤的100%概率为13.6cal/cm2。

轻微爆炸损伤半径（1 psi）：79.8 km（20030 km²）

在大约1 psi的超压下，玻璃窗可能会破裂。这可能会导致周围人群中的许多人受伤，他们在看到核爆炸的闪光（其传播速度比压力波快）后来到窗口。通常被用作城市光损害的基准。使这种效应最大化的最佳爆破高度为17.2km。

# 圣保罗

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500 rem ionizing radiation dose; likely fatal, in about 1 month; 15% of survivors will eventually die of cancer as a result of exposure.

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Moderate blast damage radius (5 psi): 25.6 [km](https://nuclearsecrecy.com/nukemap/) (2,070 [km](https://nuclearsecrecy.com/nukemap/)²)  
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在这里，由于我们讨论的是毁灭地球，故而我们就以重爆炸损伤半径为基准进行计算，随后查询得到地球表面积为510072000 km²，经过简单除法运算易知，如果核弹爆炸无缝衔接，那么510072000/339= 1504637，也就是151万个沙皇导弹（Mt）