

Chapter 9 解答

Failed Weapons Programs

Vocabulary List

- disputes
紛争
- sophisticated
洗練された
- to live up to
期待に応える
- expectations
期待
- coastal waters
沿岸水域
- circular
円形の
- stability
安定性
- shortcomings
欠点
- to outweigh
上回る
- to spin like a top
コマのように回転する
- scrapped
廃棄された
- diameter
直径
- impressive
印象的な
- shells
砲弾
- compressed
圧縮された
- ignition of
点火
- to knock A out of B
AをBから追い出す
- penetrating(v.)
貫通する
- aerodynamic
空気力学の

- altitude
高度
- in the field
現場で
- allied troops
同盟軍

Vocabulary Practice

1. Allowed words: 'to live up to', 'to spin like a top', 'ignition of', 'penetrating', 'to outweigh', 'scrapped', 'to knock...out of'

1. The fire was caused by the accidental ----- a pile of newspapers.
2. The world class figure skater was able -----.
3. The bullet was capable of ----- the target with ease.
4. The son hoped he would be able ----- the expectations of his father.
5. He continued onward because he felt that the benefits were able ----- the risks.
6. The young baseball player wanted ----- the ball ----- the park.
7. The old airplane was scrapped and its parts were sold to an overseas company.

✓ Answers >

1. ignition of
2. to spin like a top
3. penetrating
4. to live up to
5. to outweigh
6. to knock...out of
7. scrapped

2. Allowed words: 'disputes', 'coastal waters', 'shortcomings', 'shells'

8. Although the plan was quite good, it still had a few -----.
9. The larger the cannon, the larger the ----- in fires.
10. The plane searched the ----- for any survivors of the shipwreck.
11. It is better to resolve your ----- though words rather than violence.

✓ Answers >

8. shortcomings
9. shells
10. coastal waters
11. disputes

3. Allowed words: 'expectations', 'stability', 'diameter', 'altitude', 'allied troops'

12. Its narrow ----- made cleaning the inside of the vase extremely difficult.
13. His first place finish in the competition exceeded the ----- of his coach.
14. My grandfather was one of the ----- who served in Europe.

15. The carpenter did not trust the ----- of the ladder.
16. The mountain climber had never reached such a high ----- before.

✓ **Answers** >

- 12. diameter
- 13. expectations
- 14. allied troops
- 15. stability
- 16. altitude

4. Allowed words: 'sophisticated', 'aerodynamic', 'in the field', 'impressive', 'compressed', 'circular'

17. The earth is actually slightly egg-shaped rather than -----.
18. Once electronic files are -----, they can be transmitted much more quickly.
19. Computers are remarkably ----- devices.
20. The Grand Canyon is an incredibly ----- sight.
21. On paper, the design seemed excellent, but ----- it was a complete failure.
22. Thanks to its ----- shape, the jet was capable of flying at a very high speed.

✓ **Answers** >

- 17. circular
- 18. compressed
- 19. sophisticated
- 20. impressive
- 21. in the field
- 22. aerodynamic

Listening to the Lecture

[Unique Selections 英語なるほどリスニング講義](#)

🔊 原文

From our earliest days, we human beings have fought with one another in many of our disputes. We have used weapons that have become more sophisticated over time. All though many of our weapons are very effective, there have been some weapons that have failed to live up to expectations. Today, we look at two such failed weapons programs.

In 1874, Russian designers finished building a ship that they felt would be perfect for defending the coastal waters of Russia. The name of the ship was Novgarat, and it had a very unusual design. Unlike a regular ship, the Navgarat was circular. It was believed that this circular design would allow the ship to carry much larger guns because of the increased stability. Although the Novgrot could carry very large guns, its shortcomings outweighed any of its advantages. Owing to the circular design, the ship was extremely slow in battle. Also, it was not as stable as had been thought. However, the most serious weakness became clear whenever it fired one of its guns. Since the guns were not located in the center of the ship, when one of them was fired, the ship would start to spin like a top. This spinning took a considerable amount of time to stop and made the ship

extremely ineffective in combat. It was taken out of active combat service and eventually scrapped in 1912.

The second failed weapon program came from Nazi Germany during World War II. This weapon, called the Vindicanana, was an eleven meter long cannon that was 1 meter in diameter. An impressive looking weapon. The Vindicanana was not your normal cannon, however. Unlike a standard cannon which fired shells, the Vindicanana fired compressed air instead. The compressed air was created by the ignition of oxygen and hydrogen. It was thought that this weapon could be used to knock enemy aircraft out of the sky. In fact, during tests, it was shown that this weapon was capable of penetrating a 25 millimeter thick board of wood located over 200 meters away. Unfortunately, the aerodynamic design of fighter planes and their rapid speed and high altitude made this cannon a complete failure in the field. It was eventually stored in a test facility where it was discovered by allied troops in 1945.

These two weapons were huge failures in terms of the resources and effort that were wasted in creating them. It is fairly certain that in the future there will be other failed and wasteful weapon programs.

和訳

我々人類は、生まれた時からお互いに争いを繰り返してきました。そしてその過程で、私たちが使う武器は時間と共に洗練されてきました。しかし、中には期待に遠く及ばない武器も存在します。今日は、そういった失敗した二つの武器プログラムについて見ていきましょう。

1874年、ロシアの設計者たちはロシアの沿岸水域を防衛するための完璧な船を建造しました。その船の名前はノヴガラトで、非常にユニークな設計でした。通常の船とは違い、ノヴガラトは円形でした。この円形の設計は船により大きな安定性をもたらし、それによって大砲を多く搭載できると考えられました。しかし、ノヴガラトが大砲を多く搭載できたとはいえ、その欠点は利点を上回ってしまいました。円形の設計のせいで船は戦闘時に極度に遅く、また、思ったほど安定していませんでした。しかし、最も深刻な弱点は大砲を発射するたびに明らかとなりました。大砲が船の中心に位置していないため、一つを発射すると、船はコマのように回転し始めました。この回転が止まるまでにはかなりの時間がかかり、戦闘での効果を極めて低下させました。ノヴガラトは最終的に実戦から引退し、1912年に解体されました。

二つ目の失敗した武器プログラムは、第二次世界大戦中のナチス・ドイツからです。この武器、ヴィンディカナナと呼ばれるものは、長さ11メートル、直径1メートルの巨大な砲でした。見た目は非常に印象的でした。しかし、ヴィンディカナナは通常の大砲とは違い、砲弾ではなく圧縮空気を発射しました。この圧縮空気は酸素と水素の燃焼により生成されました。この武器は敵の航空機を空から打ち落とすために使用されると考えられました。実際、試験ではこの武器が200メートル先の25ミリ厚の木板を貫通する能力があることが示されました。しかし、戦闘機の空気力学的な設計やその高速で高高度な飛行は、この大砲を実戦で完全に失敗させました。最終的には試験施設に保管され、1945年に連合軍によって発見されました。

これら二つの武器は、それらを作り上げるために無駄にされたリソースや労力に関して、大きな失敗でした。将来も同様の失敗した、そして無駄な武器プログラムが存在することはほぼ確実でしょう。

Comprehension Questions

a. Multiple choice questions

1. What was the Navgarod designed for?
 - a) to frighten enemies with its large size
 - b) to fight ocean battles around the world
 - c) to promote a new ship design
 - d) to protect the Russian coast
2. Which of the following was not one of the Navgarod's weaknesses?
 - a) It was slow.
 - b) Its guns were too large.
 - c) It was not actually very stable.
 - d) It would spin when its guns were fired.
3. What eventually happened to the Navgarod?
 - a) It was broken down and its materials were possibly sold or recycled.
 - b) It sank during battle.
 - c) It was discovered by allied troops.
 - d) It is still in service.

✓ Answer >

1. d
2. b
3. a

b. True-false questions

1. The wind cannon was unusual mainly because of its size.
2. The length of the wind cannon was 1 meter.
3. During testing, the wind cannon was a success.

✓ Answer >

1. False. The wind cannon was unusual mainly because it fired compressed air instead of shells.
2. False. The length of the wind cannon was 11 meters, not 1 meter.
3. True. During testing, the wind cannon was shown to be capable of penetrating a 25 millimeter thick board of wood located over 200 meters away. However, it was a failure in actual combat situations.