

By Andrew Olson

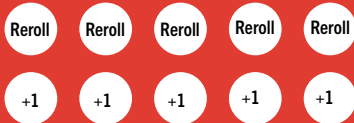
Set Up: Collect 7 small items (ex: paperclips) to serve as missile parts, a 6-sided dice (d6), and 2 small items (ex: cubes) to serve as Resource Tokens. Place the missile parts in "Sought Parts" and Resource Tokens in the two green resource boxes marked "Start." One player plays DPRK (Red) and another as Counter-Proliferation Community (Blue). DPRK player moves first, then alternate players.

North Korea (DPRK)



Funds

You may fill a max of 2 bubbles during a roll to move.



DPRK Turn: Repeat twice on your turn: Choose a missile part and select adjacent stage. Roll equal to or above the number in the rocket on six-sided dice (d6) to advance along the rocket to that adjacent red box.

- You may expend (fill in) up to 2 Funds and gain their benefits before or after you roll to advance part. May choose to use same type of Fund twice on same roll (ex: +2; two rerolls).
- If you ever roll 1 or 2 when moving parts, the blue player may fill an Awareness bubble.
- Instead of rolling to move a part, you may (choose 1):

- Choose 1 blue Resource Token and roll a d6. If 4 or more, remove token for this round.
- Choose a filled-in Funds bubble. Roll a d6, on 5 or more erase filler and Fund can be used again.

Victory: Move 4 missile parts into the Delivered area.

SOUGHT PARTS

(Start parts here)

Industry Awareness & Cyber Posture

If Resource Token here, -1 to rolls to move to Contracting and Negotiation

Resource (Start)



Sanctions & Law Enforcement Posture

If Resource Token here, -1 to rolls to move to Payment

Resource

Item Sourced



Contracting & Payment



Financial Posture & Cyber Posture

If Resource Token here, -1 to rolls to Shipping AND move from Item Sourced to Delivered via Cyber Theft

Resource (Start)



Cyber Theft (Design Theft)



DELIVERED



Resource

Interdiction Posture & Export Controls

If Resource Token here, -1 to rolls to move to Delivered

Shipping



Missile Movement Math

Set Up: When DPRK rolls to move missile parts: If Resource Token present (-1); If Intelligence Sharing filled in (-1); If "+1" fund spend on this roll (+1 per fund). Move missile part if sum greater to or equal to # on missile

Non-Proliferation Community (Blue)



Awareness

May be filled in any order, benefit only received when all circles in row filled.



Intelligence Sharing

Subtract 1 from all DPRK movement rolls.

Interagency Partnership



May reroll 1 Seize attempted during your turn.

International Coalition



Place 1 Resource Token for free before taking actions.

Coordinated Interdiction



On DPRK movement roll of 1 or 2, may immediately roll to Seize said part instead of filling in Awareness.

Blue Turn: First remove any placed Resource Tokens. Then select 2 of the following actions, (the same action may be selected twice):

- Resource** – add a Resource Token to any of the boxes labeled resource.
- Seize** – Select a part not on Sought Parts or Delivered zones and roll d6. On a 6, permanently remove that part from the game.
- Outreach and Intel Sharing** – fill in one Awareness bubble.
- Sanctions:** Roll 4 or better to fill in one DPRK Funds.

Victory: Blue wins if it removes 4 pieces from the game (via Seize action).



Designer Notes

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Rolling Rockets is a simple micro-wargame where players work to either disrupt or facilitate the acquisition of materials necessary to produce nuclear payload capable ballistic missiles. It's a race against the clock for the DPRK to find, contract, acquire, and ship material before the Counter-Proliferation Community plugs the gaps, builds international awareness, and assembles a coalition. The game was built off publicly available information and bulletins created by counter proliferation agencies like the Bureau of Intelligence and Research (INR) outlining the pathways North Korea (DPRK) uses to acquire ballistic missile parts and materials.

In the words of the 2020 North Korea Missile Advisory, "industry is on the front line of detecting and thwarting North Korea's procurement attempts." This reflects the criticality of coordination between government and commercial entities in the success or failure of combating DPRK ballistic missile procurement. By devoting resources to maintaining a pro-active posture along various critical junctures, the counter-proliferation player can slow (and potentially stop) the movement of parts along acquisition pathways. However, piece-meal efforts are less sustainable than building overall awareness & coalitions.

As a micro-wargame, ***Rolling Rockets*** significantly simplifies the complex nature of proliferation dynamics and international arms control for ease of play and game accessibility. For example, cyber tradecraft in this game is simplified and depicted only as theft of designs, when in reality cyber-enable actions interact with many different facets of proliferation, notably cyber crime's role in illicit financing. In game "Cyber Theft" pathway reflects the complex cyber-enabled process of acquiring key information (like designs), while the other pathway ways for movement reflect the physical pathways of critical missile components. Its important to remember, wargames do not perfectly model any complex system, but can help players learn more about them.

The **CNA Gaming & Integration Program** designs bespoke analytical and educational games on a variety of topics – such as operational warfighting, cyber & space, global security, future technologies, and more. We tailor the wargame design, data collection process, and analysis to meet each sponsor's unique needs.

If you are interested in learning more about CNA wargaming, you can reach out to the following:

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