

Matt Schroeder



North Korean Small Arms and Light Weapons **RECOGNITION GUIDE**

Matt Schroeder



A publication of the Small Arms Survey's Strengthening Implementation and Enforcement of the Arms Embargo on North Korea (SAENK) project, with support from the Netherlands Ministry of Foreign Affairs.



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Introduction



The purpose of this guide is to increase the capacity of UN investigators and government officials to detect and interdict illicit transfers of small arms and light weapons by the Democratic People's Republic of Korea (DPRK) and its affiliates by enabling key stakeholders to:

- **recognize** the various small arms, light weapons, and ammunition produced in North Korea;
- **differentiate** between North Korean-made small arms and light weapons and other makes and models; and
- **identify** signs of trafficking by the DPRK and its affiliates, including the use of previously documented concealment methods and smuggling techniques.

The guide consists of two sections. The first section provides detailed information about 14 different models of small arms and light weapons, along with their ammunition. The 37 slides in this section include data on—and imagery of—these items, including their designators, calibre, foreign equivalents, feeding devices, key physical characteristics, and markings.

The second section is a detailed overview of the mechanics of North Korean small arms trafficking. The section, which draws on data compiled by UN investigators, describes the modes of transport, concealment methods, and smuggling techniques used by the DPRK and its affiliates.



Weapons identification

Not all North Korean weapons are documented in this guide. North Korea is among the least transparent states in the world and therefore imagery and data on most models of arms and ammunition is scarce.

Beware of counterfeit weapons and falsified markings. Some unlicensed arms manufacturers produce high-quality counterfeit firearms that are difficult to distinguish from the real thing. Similarly, arms and ammunition are sometimes re-marked, including by North Korea. Users of this guide should consult with experts regarding suspected North Korean weapons, whenever possible.



WARNING

This information is for educational purposes only. All weapons and ammunition are potentially dangerous. We strongly encourage all unqualified persons to stay away from any weapon, ammunition, or explosive. However, if you encounter these items, take the following steps:

1. **ABANDON** the area;
2. **COLLECT** all information from a safe distance;
3. **MARK** the area to warn others;
4. **CONTACT** the appropriate authorities.

Markings, crates, and documentation

National marks



5-point star (no circles)



5-point star (one circle)



5-point star (two circles)

Selector markings



Model designators



Sources:

Royal Canadian Mounted Police (RCMP): 'National marks', images 1 and 5 from left to right; 'Selector markings'; 'Model designators', top right and bottom images)

Royal Armouries National Firearms Centre: 'National marks', images 2 and 3 from left to right; 'Model designators', top left image

United Nations Security Council (UNSC): 'National marks', images 4 and 6 from left to right; 'Model designators', top middle image

Markings

Small arms ammunition



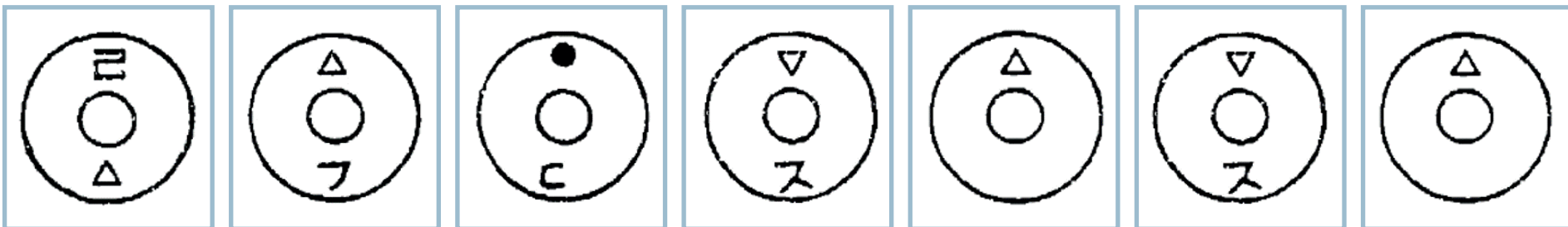
Source:
United Nations Security
Council (UNSC)



Factory code

Production year

Casings for North Korean 7.62 × 39 mm cartridges found in the Democratic Republic of Congo (DRC)



Various older (pre-1980) markings for North Korean cartridges

Source: United States Defense Intelligence Agency



Markings

Light weapons



Source: Confidential Sources



Source: Confidential sources

Markings on the data plate of a MANPADS gripstock seized in 2009



Source: Twitter (@imp_navigator)

Trigger assembly of RPG-7 launcher acquired by an armed group in DRC

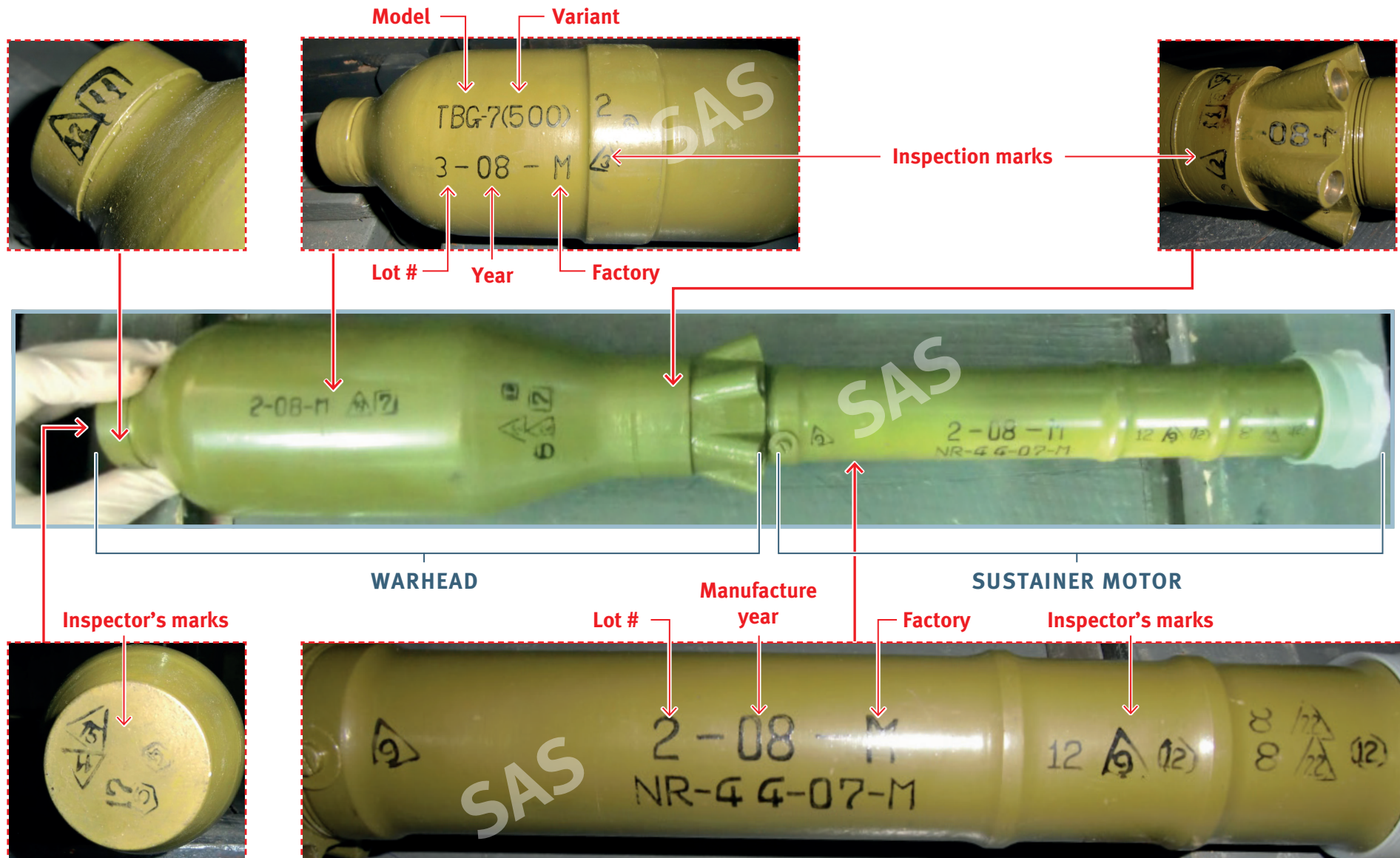


Source: Confidential sources

Trigger assembly of RPG-7 launcher seized in Thailand in 2009

Markings

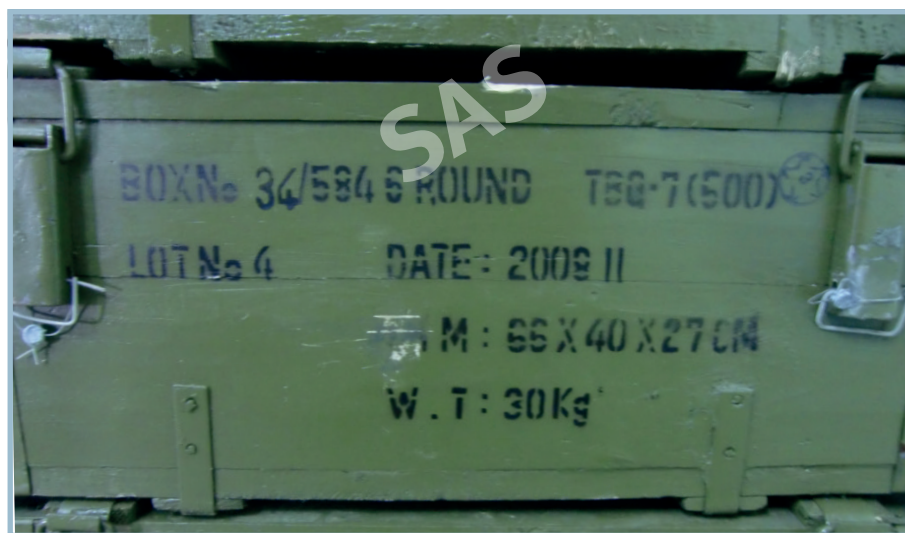
Light weapons ammunition



Source: Confidential sources (all photos)



Crates



Source: Confidential sources (all photos)

Result of test

Lot No	Number of rounds	Warhead Assembly		Propelling		Expelling		Result of test	Remarks
		Series-Year -Factory	Quan.	Series-Year -Factory	Quan.	Series- -Year -Factory	Quan.		
3	3600	3-08-M	3600	3-08-M	3600	3-08-M	3600	passed	

Chief of inspector *Jon Ki' chun* Manager of factory *zany*

PACKING LIST

Box Size : 66 × 40 × 27 cm

Box No : 2-667

Product Name : TBG-7

Q'ty of Package : 6 round

Lot No : 2-08-M

Weight of Package : 30 kg

Manufactured by *Sim*

Packer *an*

Date *2008.10*

Certificate

This is to certify that complex loaded in launching tube can fully meet the challenge of design drawing and technical regulation in its due tests and manufacturing.

Civilian QC *3*

Military QC *13*

Date ; *2009.9.16*

Source: Confidential sources (all photos)



Small arms



Small arms

Type 68 pistol



Forward-facing serrations

Type	Self-loading pistol
Calibre	7.62 × 25 mm
Feed device	8 round magazine
Foreign equivalent	TT-33 (Type 68 is heavily modified)



Source: Royal Armouries National Firearms Centre (all photos)

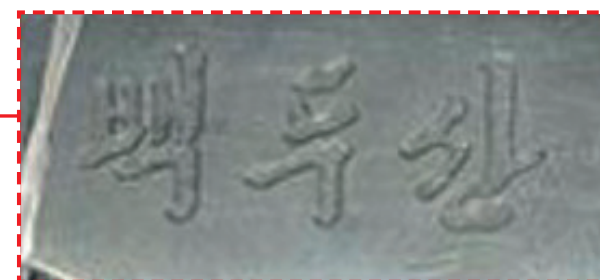


Small arms

Baek Du San

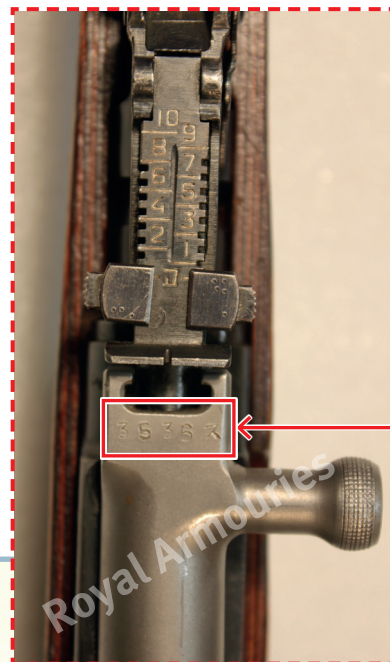


Type	Self-loading pistol
Calibre	9 × 19 mm
Foreign equivalent	CZ-75

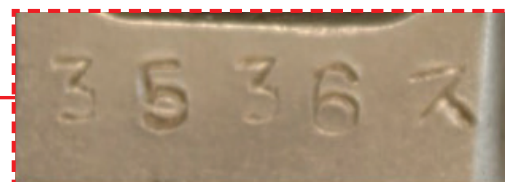


Small arms

Type 63 rifle



Type	Semi-automatic rifle
Calibre	7.62 × 39 mm
Feed device	Internal box magazine
Foreign equivalent	SKS



Source: Royal Armouries National Firearms Centre (all photos)



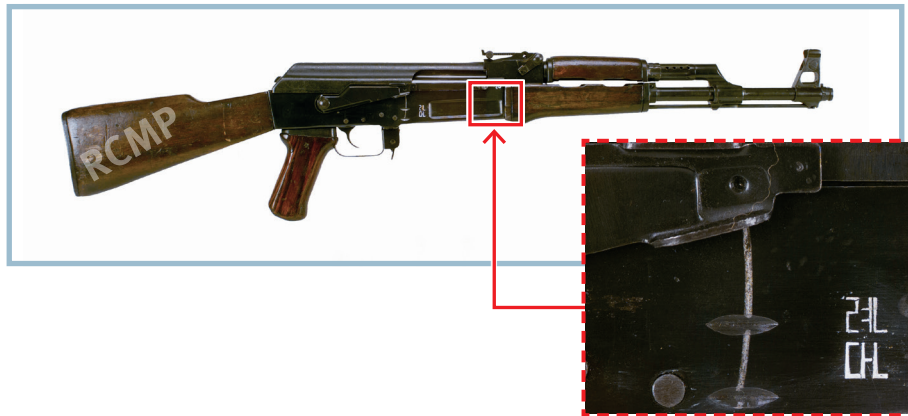
Small arms

Type 63 rifle (continued)



Small arms

Type 58 rifle



Type	Self-loading rifle
Calibre	7.62 × 39 mm
Feed device	Double-stack 30-round magazine
Foreign equivalent	AK-47 Type 3

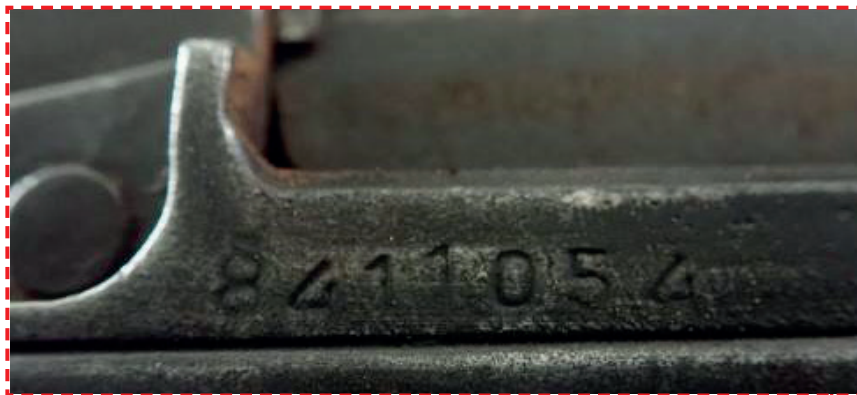


Source: Royal Canadian Mounted Police (RCMP) (all photos)

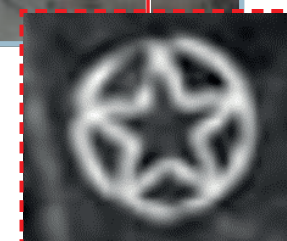
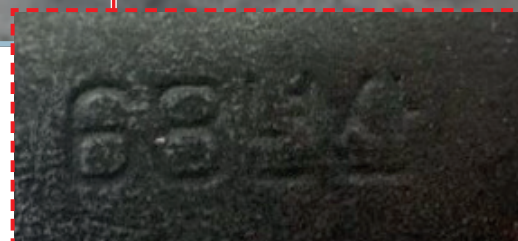
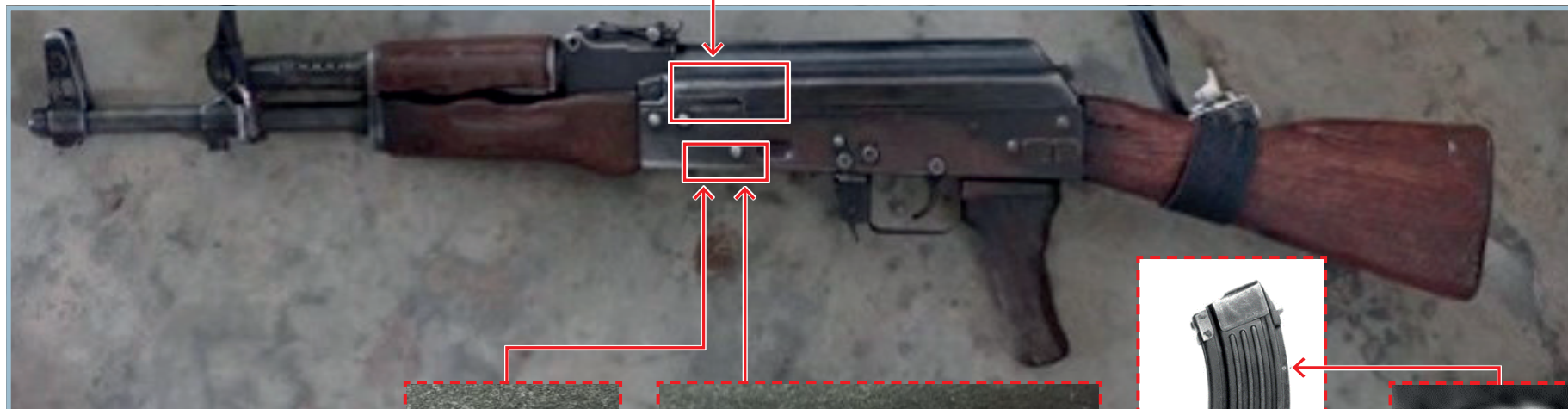


Small arms

Type 68 rifle



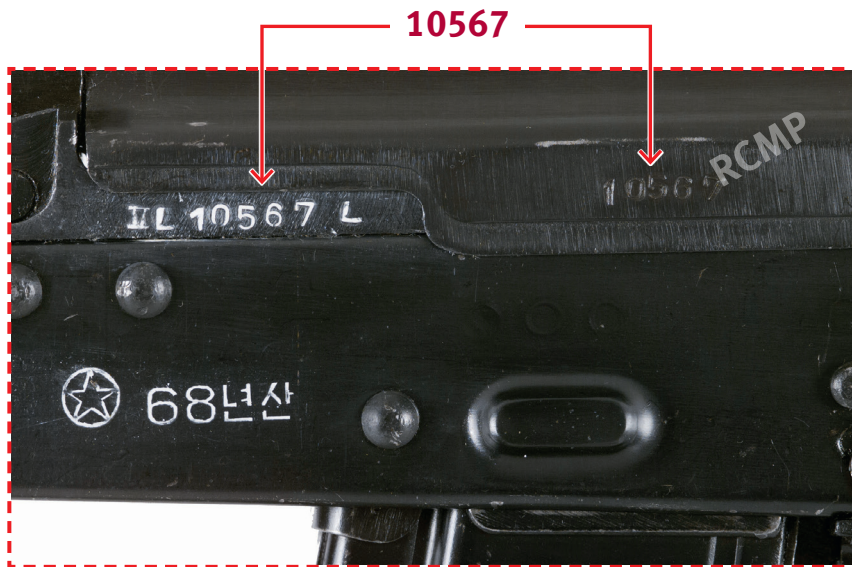
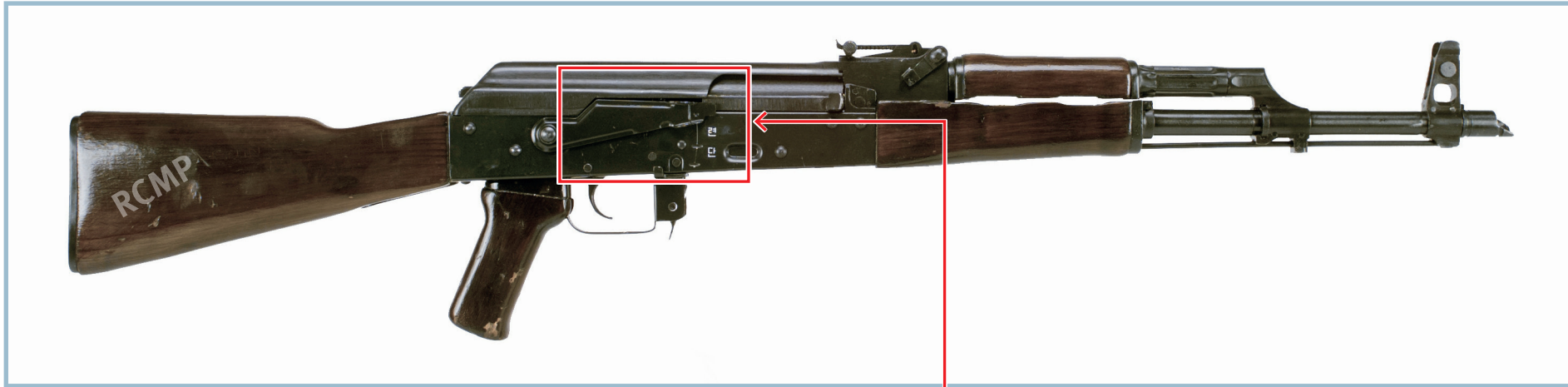
Type	Self-loading rifle
Calibre	7.62 × 39 mm
Feed device	Double-stack 30-round magazine
Foreign equivalent	AKM
North Korean variants	Type 68-1 (folding stock), export variant



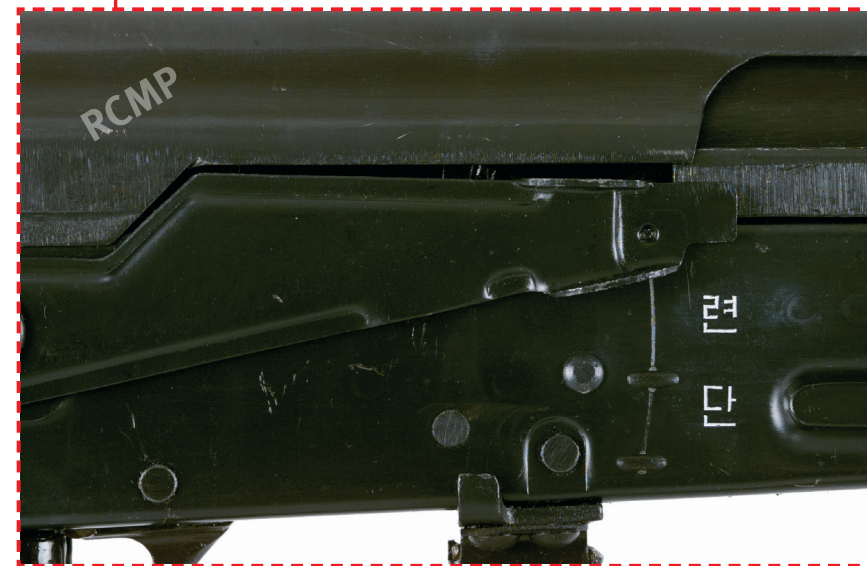
Source: United Nations Security Council (UNSC) (all photos)

Small arms

Type 68 rifle (continued)



Receiver markings (left side)



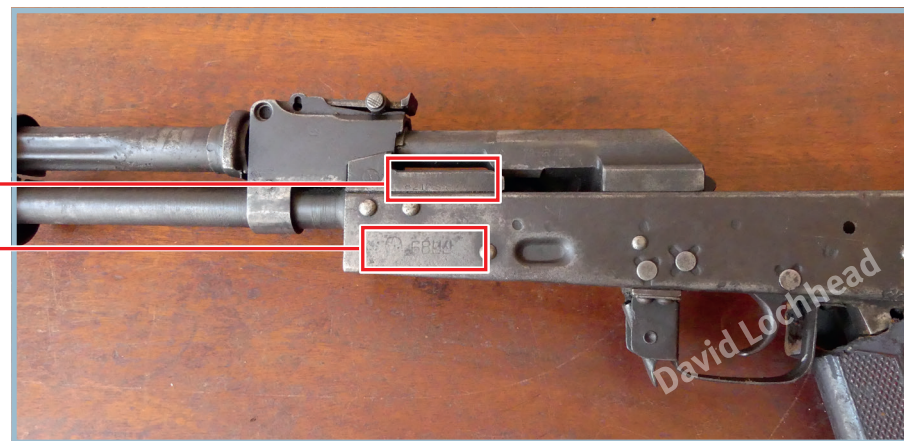
Selector position markings

Source: Royal Canadian Mounted Police (RCMP) (all photos)



Small arms

Type 68 rifle (continued)



Source: David Lochhead (all photos)

Small arms

Type 88 rifle



Type	Self-loading rifle
Calibre	5.45 × 39 mm
Foreign equivalents	AK-74, AK-74M
North Korean variants	Type 88-1 (side-folding stock) Type 88-2 (top-folding stock)



Source: Reuters/Damir Sagolj (all photos)



Small arms

Type 49 submachine gun



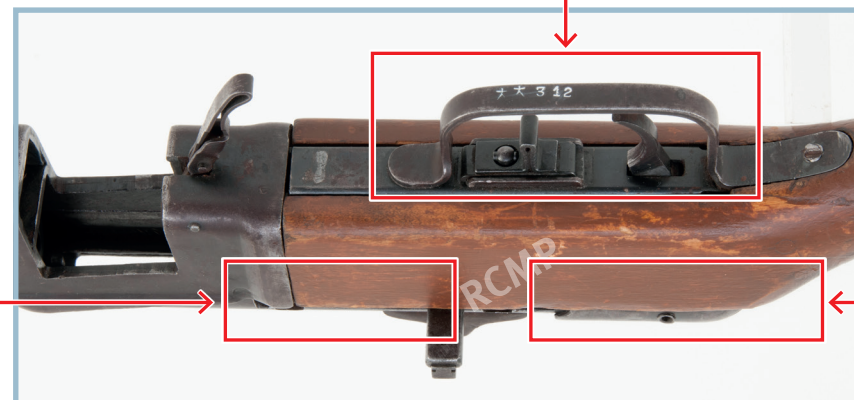
Type	Submachine gun
Calibre	7.62 × 25 mm Tokarov
Feed device	Detachable drum and box magazine
Foreign equivalent	PPSh-41



Source: Royal Canadian Mounted Police (RCMP) (all photos)

Small arms

Type 49 submachine gun (continued)



Source: Royal Canadian Mounted Police (RCMP) (all photos)



Small arms

Type 62 machine gun



Type	Light machine gun
Calibre	7.62 × 39 mm
Feed device	100-round belt fitted in metal drum
Foreign equivalent	Soviet RPD



Source: Royal Armouries National Firearms Centre (all photos)

Small arms

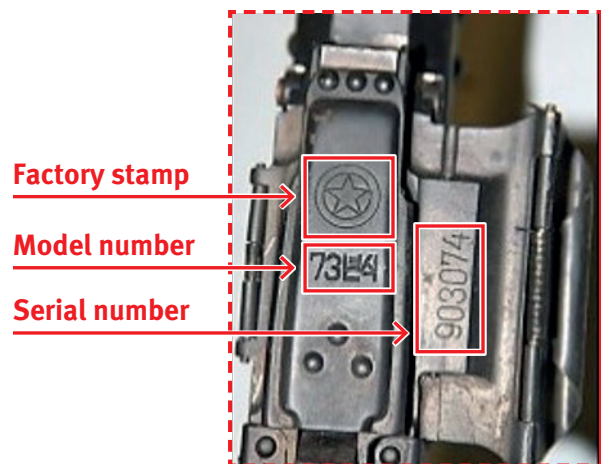
Type 62 machine gun (continued)



Source: Royal Canadian Mounted Police (RCMP) (all photos)

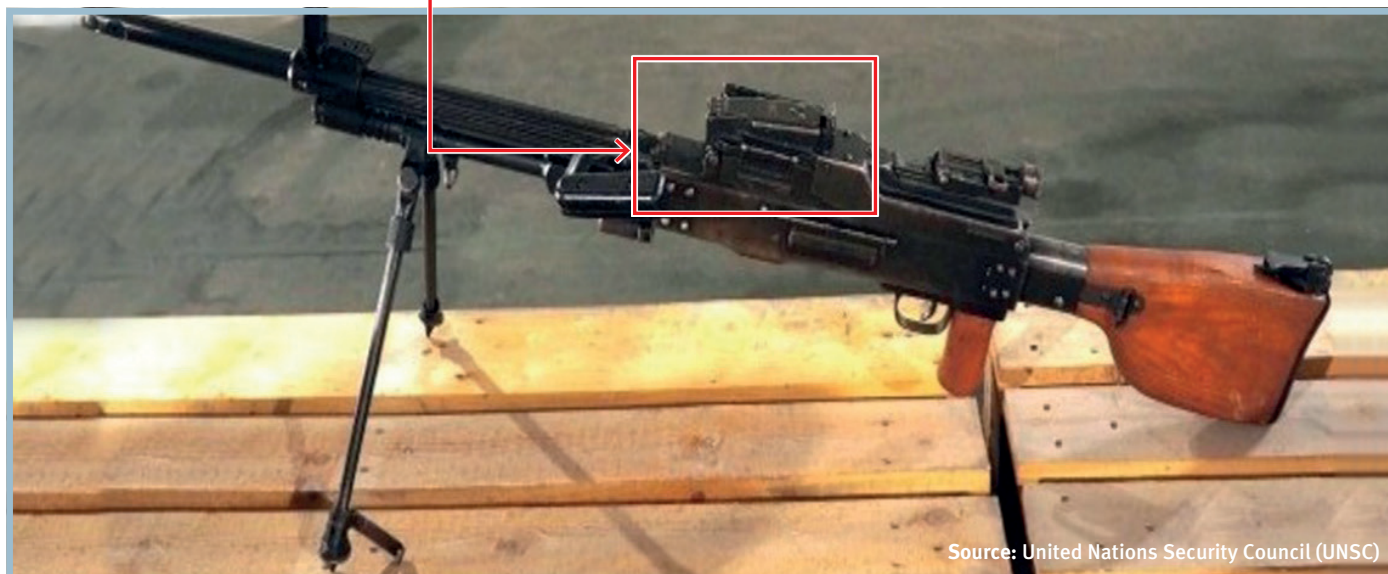
Small arms

Type 73 machine gun



Source:
United Nations Security
Council (UNSC)

Type	General purpose machine gun
Calibre	7.62 × 54R
Feed device	30-round magazine or belt
Foreign equivalent	Soviet PK/M



Magazine

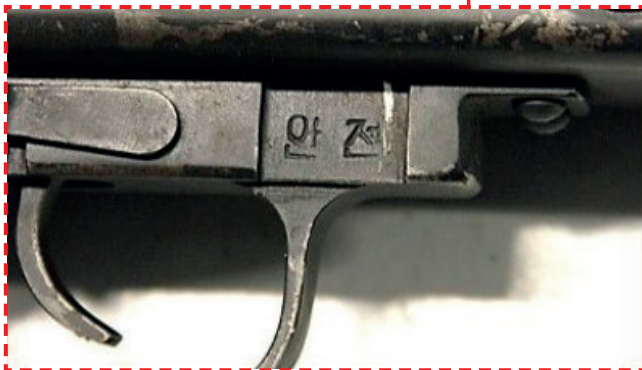
Small arms

Type 73 machine gun (continued)



Type 73 machine guns found on an unflagged fishing vessel, March 2016

Source: United Nations Security Council (UNSC)



Selector markings



Source: Twitter (@ali_almikdam)

Type 73 displayed by Iraqi militant, 2021



Source: Almasirah TV

Houthi with a Type 73 in Yemen, circa 2016



Light weapons



Light weapons

RPG-7 pattern launchers



Source: YouTube (Россия 1)

Type	Anti-tank/anti-personnel grenade launcher
Model	Type 68
Foreign equivalents	Chinese Type 69-1, Russian RPG-7

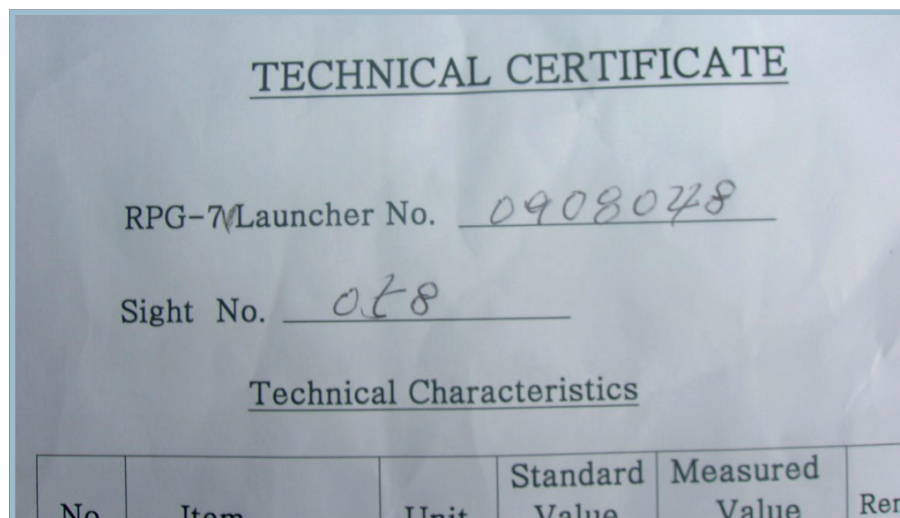


Source: United Nations Security Council (UNSC)



Light weapons

RPG-7 pattern launchers (continued)



Documentation found with the launchers



Markings on the trigger assembly



RPG-7 launcher found in a North Korean arms shipment to Iran, 2009

Source: Confidential sources (all photos)

Light weapons

F-7 RPG round



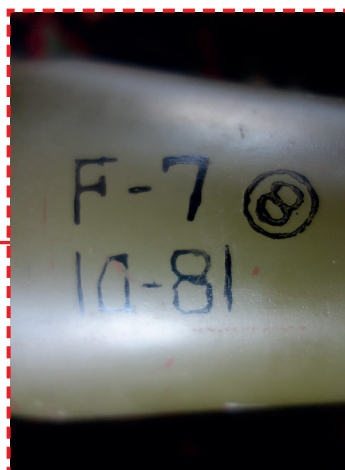
Source: C.J. Chivers

Markings on warhead



Source: United Nations Security Council (UNSC)

Gray F-7 warhead and sustainer motor



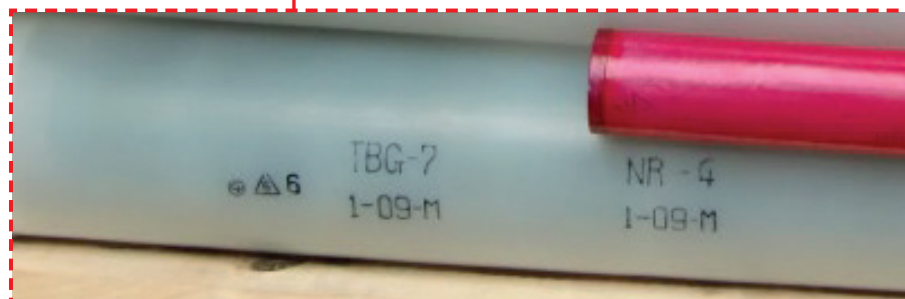
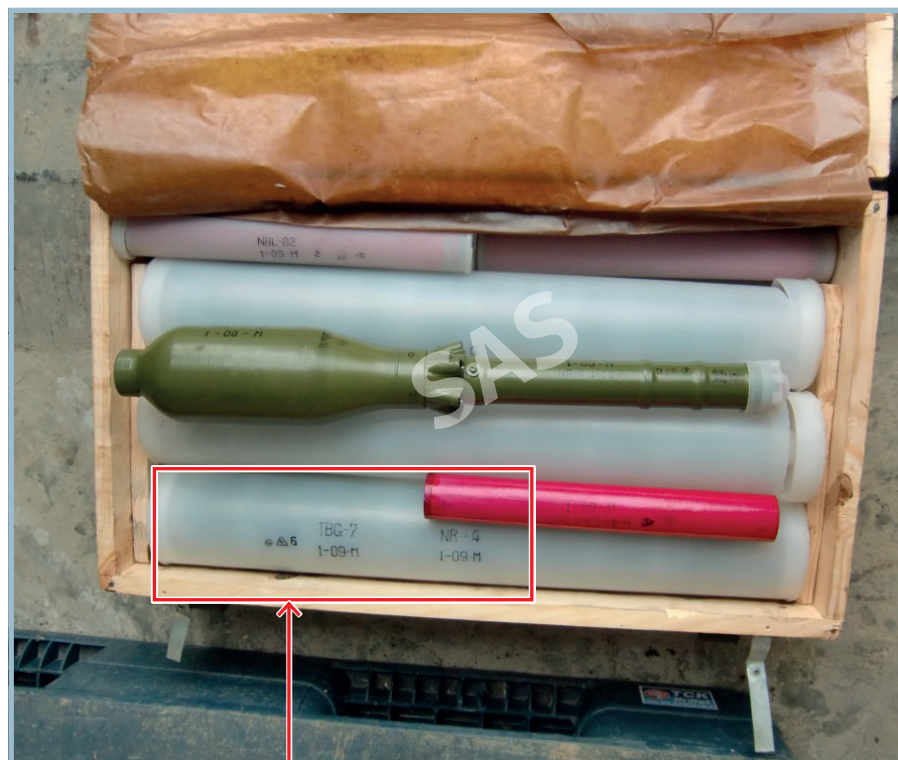
Source: C.J. Chivers

Stamps on sustainer motor



Light weapons

TBG-7 RPG round



Model	TBG-7 (5000M)	
	Rocket motor	NR-4
	Propellant	NBL-62
Warhead type	Thermobaric	
Calibre	40 mm	
Variants	TBG-7 (1000m)	



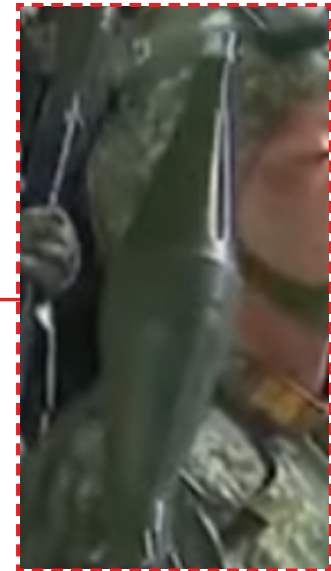
Source: Confidential sources (all photos)

Light weapons

Other RPG-7 pattern rounds



Source: YouTube (Paektusan Revolutionary Army)



Source: Gavin Hellier/Alamy Stock Photo



Light weapons

Bulsae ATGM

Type	Anti-tank guided missile
Model	Bulsae-2
Foreign equivalent	Soviet 9K111 Fagot/AT-4



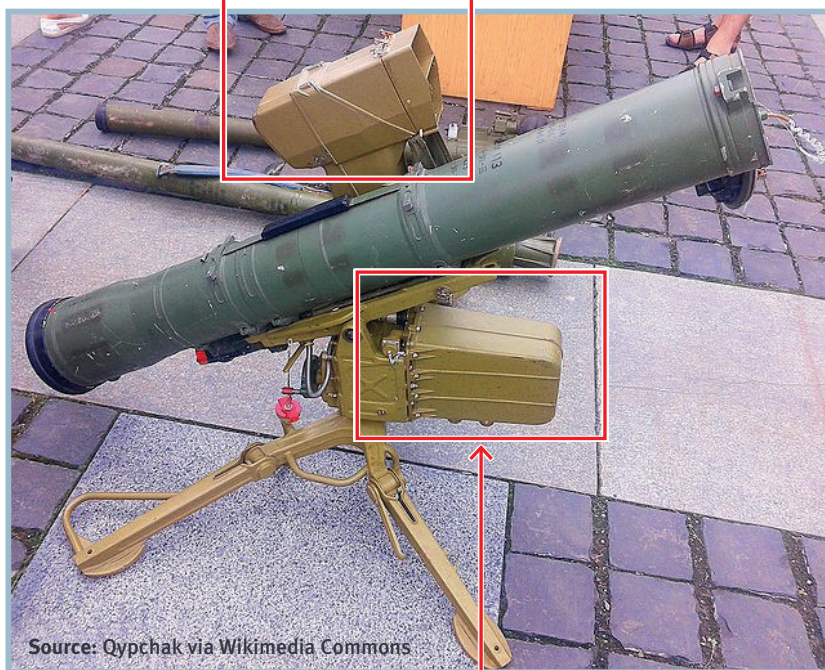
Light weapons

Bulsae ATGM (continued)



Type	Anti-tank guided missile
Model	Bulsae-2
Foreign equivalent	Soviet 9K111 Fagot/AT-4

Sight/Tracker



Soviet-designed 9K111 Fagot ATGM

North Korean Bulsae-2 ATGM

Processing unit



Light weapons

Man-portable air defence systems



Source: Confidential sources

SA-18S



Source: Twitter (@inbarspace)

Strela-2 pattern



Source: YouTube (kwangmyong)

Igla-1 pattern



Source: unknown (via www.armscontrolwonk.com)

Igla/Igla-1 pattern



Source: Oryx (www.oryxspioenkop.com)

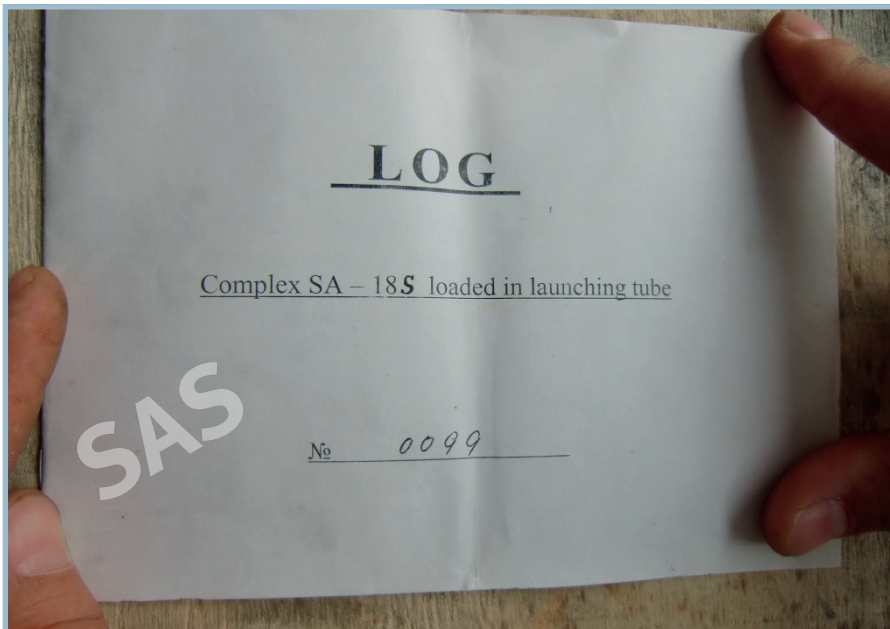
HT-16

Light weapons

SA-18S



Type	Man-portable air defence system	
Model	SA-18S	
	Gripstock	HB-16
Foreign equivalent	Igla-1 (suspected)	



Launch tube markings



Source: Confidential sources (all photos)



Conclusion

- Some North Korean weapons are distinctive in appearance.
- Others, including recent models, are very similar to models produced in other countries.
- Markings are often the key distinguishing characteristic:
 - » if repainted and re-marked, it would be difficult to distinguish some of these weapons from their foreign counterparts.
- Key information is often available in shipping and storage documents, packaging, and markings on crates.
- Confirm IDs with subject matter experts.



Smuggling

Modes of transport

General cargo vessels



Cargo aircraft



Fishing vessels

Passenger flights

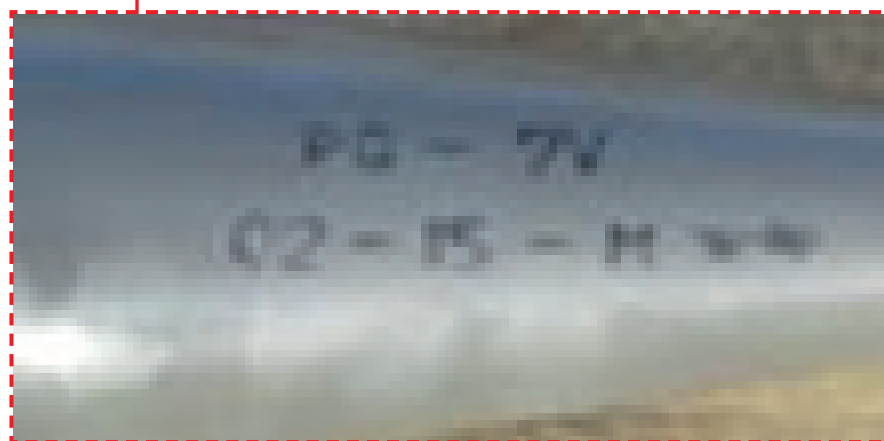
Postal services

Concealment methods



Concealment methods

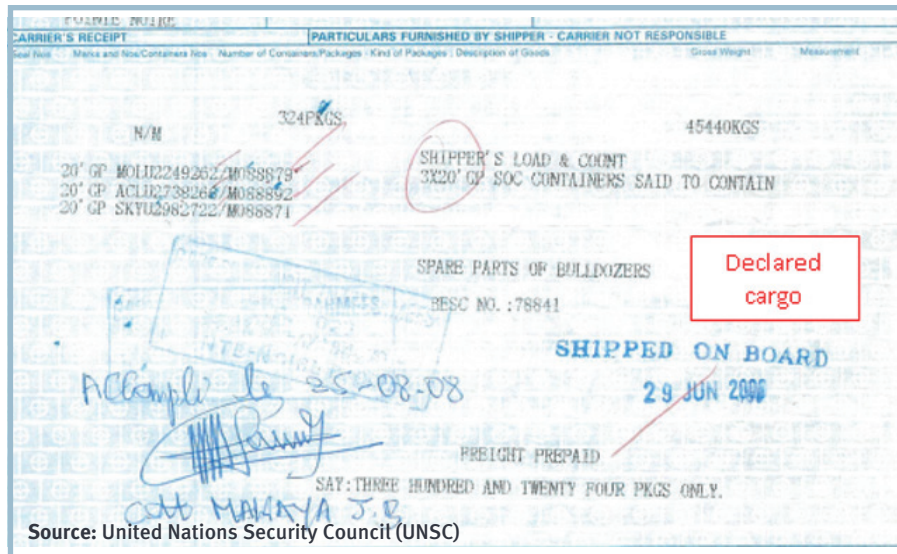
Falsified or obliterated markings



RPG-7 pattern round seized by Egypt, 2016

Concealment methods

Mislabelling



Examples of false declarations

False declaration of the items	Actual items seized	Date of seizure
Construction material	Ballistic missile-related items	October 2007
Generator parts	Rocket fuses	March 2008
Returning oil boring equipment	Rocket fuses, TBG, etc.	July 2009
Spare parts of bulldozers	Spare parts for tanks	November 2009
Mechanical parts	Conventional arms and munitions	December 2009
Lead pipe	Graphite cylinders (ballistic missile-related items)	May 2012
Generator	Military cargo	July 2013

Source: UNSC (S/2014/147 of 7 February)





Concealment methods

Shipped with other commodities



Source: Reuters/Carlos Jasso (all photos)

Smuggling techniques





Circuitous routing and false paperwork

2009 16:05 FAX

CONFIDENTIAL

A/c: IL-76, reg.: 4L-AWA
PIC: ISSAKOV + 4

Schedule (time UTC):

AWG 731 ETD UKKM 1400 08 DEC'09 / FERRY
ETA UBBI 1820 08 DEC'09 / TECH. STOP

AWG 731 ETD UBBI 0200 09 DEC'09
ETA VCBI 1140 09 DEC'09 / TECH. STOP

AWG 731 ETD VCBI 1330 09 DEC'09
ETA VTBS 1800 09 DEC'09 / TECH. STOP

AWG 731 ETD VTBS 2030 09 DEC'09
ETA ZKPY 0400 10 DEC'09 / ON LOAD

AWG 731 ETD ZKPY 0230 11 DEC'09
ETA VTBS 1010 11 DEC'09 / TECH. STOP

AWG 732 ETD VTBS 1230 11 DEC'09
ETA VCBI 1700 11 DEC'09 / TECH. STOP

AWG 732 ETD VCBI 1900 11 DEC'09
ETA OMFJ 0045 12 DEC'09 / TECH. STOP

AWG 732 ETD OMFJ 0140 12 DEC'09 ???? TRA
ETA UKKM 0730 12 DEC'09 ???? TRA

Panel explanatory note: Airport codes and locations

Airport Code (ICAO)	Airport name	Airport location
OIII	Mehrabad Airport	Tehran, Iran
OMFJ	Fujairah International	United Arab Emirates
UBBB	Heydar Aliyev Airport	Baku, Azerbaijan
UBBI	Nasosnaya Air Base	Azerbaijan
UKBB	Boryspil International Airport	Kiev, Ukraine
UKKM	Gostomel Airport	Kiev, Ukraine
VCBI	Bandaranaike International	Colombo, Sri Lanka
VTBS	Suvarnabhumi International	Bangkok, Thailand
ZKPY	Sunan Airport	Pyongyang, DPRK

V.C. 181 - Cayman Petroleum
VTBS - Shell

IL-76 Flight plan

AIRCRAFT CHARTER AGREEMENT № 38/167-76

PARTIES

A. Carrier: Company "SP TRADING LTD"

B. Charterer: Company "UNION TOP MANAGEMENT LTD"

It is hereby agreed that Carrier named above ("Company") acting in the name of Director Mr. Lu Zhang will charter and the Charterer acting in the name of Mr. Dario Cabrerios named above ("Charterer") will take on charter the Aircraft (as defined below) for carry out flight or flights set out in the Schedule below on the terms and conditions contained, or referred to in this Agreement (as defined below).

THE SCHEDULE

1. Aircraft type: IL-76 Reg. 4L-AWA Flight: AWG731/732

2. Route: Pyongyang - Tehran (transit via Gostomel)

3. Payload and/or capacity chartered: 35'000 kg

4. Nature of cargo: oil industry spare parts

5. Flight for which the Aircraft is chartered, on the dates shown below (time UTC):

FLT Nbr	From	ETD	Date	To	ETA	Date
AWG 731	UKKM	07:30	07.12.2009	UBBB	10:40	07.12.2009
AWG 731	UBBB	14:20	08.12.2009	VCBI	23:00	08.12.2009
AWG 731	VCBI	00:30	09.12.2009	VTBS	05:00	09.12.2009
AWG 731	VTBS	17:00	09.12.2009	ZKPY	00:30	10.12.2009
AWG 732	ZKPY	05:30	10.12.2009	VTBS	13:10	10.12.2009
AWG 732	VTBS	01:00	11.12.2009	VCBI	05:30	11.12.2009
AWG 732	VCBI	07:00	11.12.2009	OMFJ	12:45	11.12.2009
AWG 732	OMFJ	01:40	12.12.2009	UKKM	07:30	12.12.2009
AWG 731	UKKM	10:00	12.12.2009	OIII	14:00	12.12.2009
AWG 732	OIII	16:00	12.12.2009	UBBB	17:10	12.12.2009

6. Charter Price:

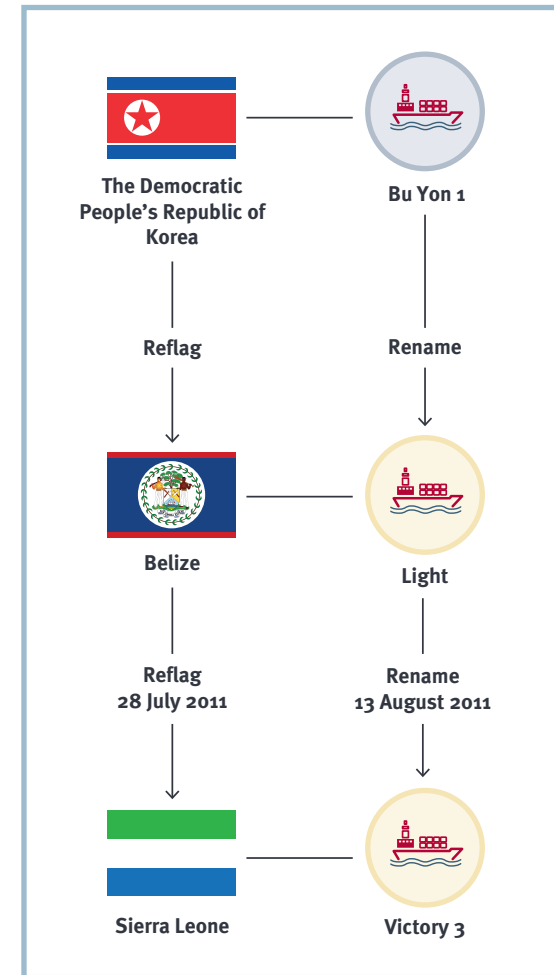
- The monies have to be transferred by the "Charterer" in accordance with the invoice and put on to account of the "Company" before performance of the flight.
- The "Charterer" has to pay all bank transfer charges regarding transfer of the monies to the account of the "Company".

ICAO code for Mehrabad International Airport (Iran)

Charter agreement

- Frequently used to hide the identities of individuals and commercial entities involved in DPRK arms trafficking.
- Example: IL-76 seized in Thailand in 2009:
 - » owned by East Wing until autumn 2009;
 - » transferred to UAE-based Overseas Cargo FZE;
 - » leased to Georgia-based Air West;
 - » leased to SP Trading;
 - » chartered to Hong Kong-registered Union Top Management (UTM);
 - » UTM created days before flight;
 - » ‘Director’ was fictional;
 - » No record of payments from UTM to SP Trading.

- Conceal links to DPRK.
- Example: *MV Light*
 - » hailed by United States Navy, returned to North Korea (link to DPRK exposed) (May 2011);
 - » reflagged from Belize to Sierra Leone (July 2011);
 - » name changed to *Victory 3* (August 2011);
 - » operator changed from Dalian Sea Glory Shipping Co. to Sea Star Shipping Co. (August 2011).



Graphic: UN Security Council

- Using embassy buildings as operational centres.
- Tasking embassy personnel with coordinating key activities.
- Concealment of weapons in sealed diplomatic shipments.



Other smuggling techniques

- Falsified shipping documents.
- Separate shipment of authentic documents.
- Scant, false, or altered information on parties to shipments.
- Turning off the smuggling vessel's automatic identification system.

Small Arms Survey

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About the Small Arms Survey

The Small Arms Survey is a global centre of excellence whose mandate is to generate impartial, evidence-based, and policy-relevant knowledge on all aspects of small arms and armed violence. It is the principal international source of expertise, information, and analysis on small arms and armed violence issues, and acts as a resource for governments, policymakers, researchers, and civil society. It is located in Geneva, Switzerland, and is an associated programme of the Graduate Institute of International and Development Studies.

The Survey has an international staff with expertise in security studies, political science, law, economics, development studies, sociology, and criminology, and collaborates with a network of researchers, partner institutions, non-governmental organizations, and governments in more than 50 countries.

For more information, please visit: www.smallarmssurvey.org.

A publication of the Small Arms Survey's Strengthening Implementation and Enforcement of the Arms Embargo on North Korea (SAENK) project, with support from the Kingdom of the Netherlands.

