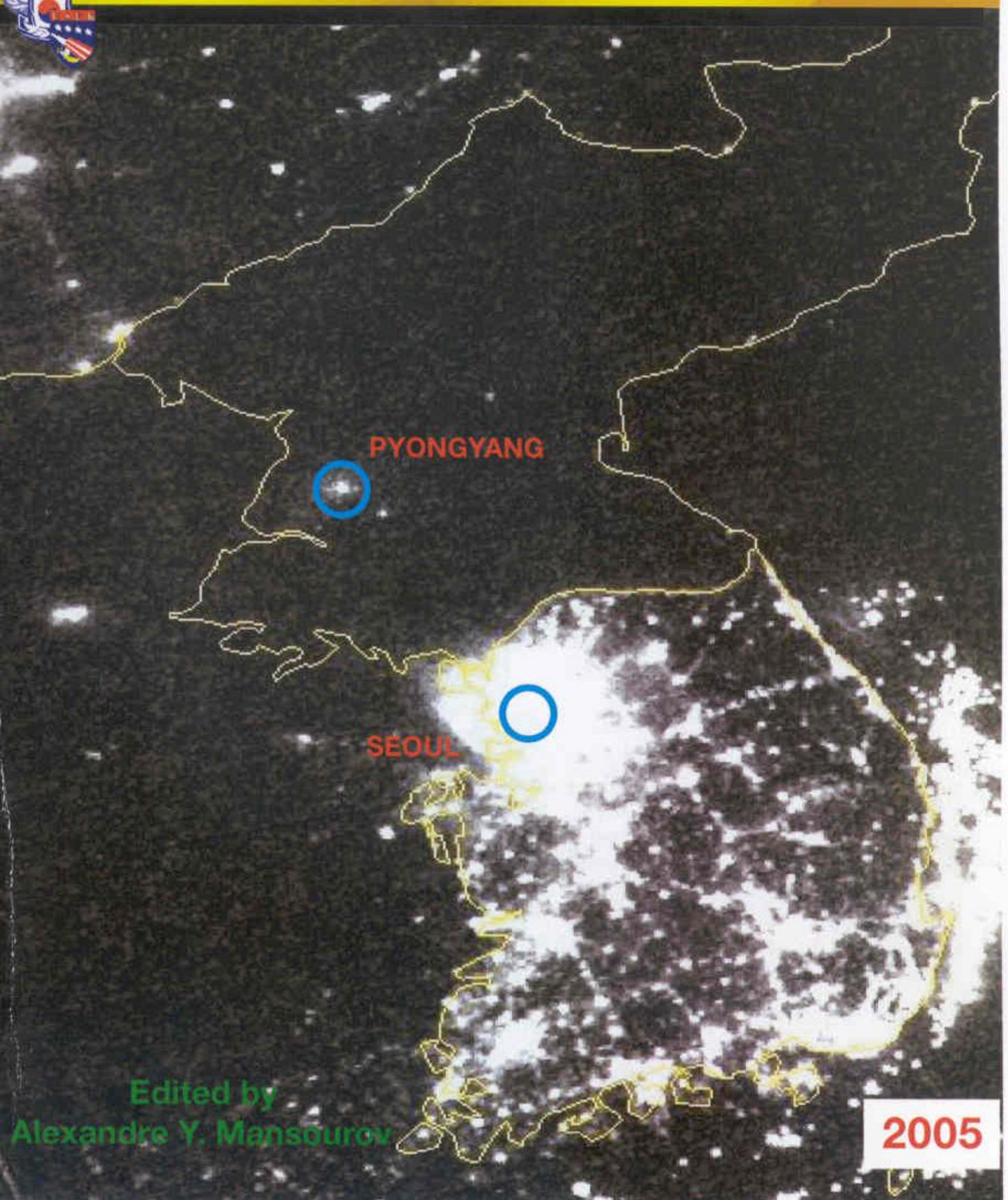




# BYTES AND BULLETS:

## Information Technology Revolution and National Security on the Korean Peninsula



Edited by  
Alexandre Y. Mansourov

2005





**BYTES AND BULLETS:**  
**INFORMATION TECHNOLOGY  
REVOLUTION AND  
NATIONAL SECURITY ON THE  
KOREAN PENINSULA**

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ALEXANDRE Y. MANSOUROV

EDITOR



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HONOLULU, HAWAII

2005

*Bytes and Bullets in Korea*

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Published 2005 by the Asia-Pacific Center for Security Studies  
Honolulu, Hawaii  
Printed in the United States of America

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Library of Congress Cataloging-in-Publication Data  
Bytes and Bullets: Information Technology Revolution and National Security on the Korean Peninsula/ edited by Alexandre Y. Mansourov

ISBN 0-9719416-9-6 (paperback: alk. paper)

1. Korea (South, North) – Economic Development 2. Korea (South, North) – National Security 3. Korea (South, North) – Military Policy 4. Korea (South) – Foreign Relations – Korea (North)

I. Mansourov, Alexandre Y. , 1967-

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## **Acknowledgments**

The editor would like to express his gratitude to the conference support division at the Asia-Pacific Center for Security Studies, especially LTC Carl Baker, Mrs. Lenore Patton, and Mrs. Lynne Yamashita, for their indispensable assistance in organizing the conference on IT Revolution and National Security on the Korean Peninsula in Honolulu, HI, in October 2002, that originally brought together Korea experts featured here. The editor expresses his special thanks to the APCSS President Lt.-Gen. Hank Stackpole and APCSS Executive Director Dr. Jim Lackey for their valuable advice, unwavering support, and determination to see this edited volume published. Dr. Lee Endress and Col. David Shanahan deserve many thanks for their intellectual advice and considerable technical assistance in various stages of the book's development. The editor is also grateful to Steven Gransback for his dedication and help in translating and transferring the initial draft chapters from Seoul to Honolulu. Finally, Debra Fikac, Donna Klapakis, and Dottie Walters should be commended for their diligence, enthusiasm, and professionalism in preparing the manuscript for publication.





## **Note on Romanization**

The McCune-Reischauer Romanization system is used throughout the book for transliteration from Korean language materials. Exceptions are made for widely accepted place names like Pyongyang, Seoul, etc., and well-known personal names such as Kim Il Sung, Kim Jong Il, etc., that otherwise would be difficult to recognize.





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## **Acronyms and Abbreviations**

3D	three-dimensional application
3G	third-generation technology
ACINT	acoustic intelligence
ACLS	automatic carrier landing system
ADD	Agency for Defense Development (ROK)
ADSL	asymmetric digital subscriber line
AEW	airborne early warning (DPRK aircraft)
AFATDS	advanced field artillery tactical data system (U.S.)
AGI	intelligence gathering vessel (DPRK)
APT	Asia Pacific telecommunity
ATM	asynchronous transfer mode
AWACS	airborne warning and control systems
B	billion
B2B	business to business
B2C	business to consumer (e-retailing)
BcN	broadband convergence network
BLOS	beyond line of sight
BPR	business process reengineering study
bps	bits per second
BT	biotechnology
CALS	computer-aided logistic system
CAOC	Combined Air Operations Center
CATV	cable television
C4ISR	command, control, communications, and computers, intelligence, surveillance, and reconnaissance systems
CBRS	concept-based requirement system
CCIB	U.S. Command Control Interoperability Board
CCSKA	Central Committee secretary in charge of South Korean Affairs (DPRK)

CDL	common data link
CDMA	code division multiple access standard
CEC	cooperative engagement capability
CEP	cooperative engagement processor
CERT	computer emergency response team
CFC	Combined Forces Command
CHBDL-ST	common high bandwidth data link surface terminal
CIC	combat information center
CNR	combat net radio
COCOM	Committee for Multilateral Exports Controls
COE	common operating environment
COMSEC	communications security
COP	common operational picture
COTS	commercial-off-the-shelf-based system
CPAS	command post automated system
CRC	control and reporting center
CRT	cathode ray tube technology
CT	cell technology
CTP	common tactical picture
DB	database
DDS	data distribution system
DEA	data exchange agreement
DISA	Defense Information Systems Agency (U.S.)
DMB	digital mobile broadcasting service
DMZ	demilitarized zone
DPAMIS	Defense Procurement Agency management information system
DRAM	digital random access memory chip
EC	electronic commerce
ECM	electronic countermeasures
EDI	electronic data interchange
EIW	electronic intelligence warfare
ET	ecology-friendly technology
EW	electronic warfare
FDRC	Flood Damage Rehabilitation Committee

	(DPRK)
FMF	fixed message format
FMS	foreign military sales
FPD	flat panel display
G2B	government to business
GAiN	global aid network
GDP	gross domestic product
GePS	government e-procurement system
G4C	government for consumer
GCCS-K	global command and control system -- Korea
GCCS-M	global command and control systems -- maritime version
GITIS	government integrated technical information system
GNP	gross national product
GPRS	general packet radio service
GPSH	Grand People's Study House (DPRK)
GSM	global system for mobile communication
HDD	hard drive disk
HDTV	high definition television
HEU	highly enriched uranium
IAEA	International Atomic Energy Agency
IC	integrated circuits
ICT	information and communication technology
IDD	international direct dialing
IDDN	integrated defense digital network (Japan)
IIDS	integrated information display system
IMINT	imagery intelligence
INGECEP	integrated next-generation electronic commerce environment project
IOC	initial operational capability
IPAMG	information planning, analysis and management group of Pyongyang Informatics Center (DPRK)
IPv6	Internet protocol version 6

IPToW	Internet telephony on wireless network
ISDL	inter-site data link
ISDN	integrated services digital network
ISP	Internet service provider
ISR	intelligence, surveillance and reconnaissance
IT	information technology
ITS	intelligent transport system
ITU	International Telecommunication Union
IW	information warfare
JV	joint venture(s)
K	thousand
KAERI	Korean Atomic Energy Research Institute (ROK)
KAIST	Korean Advanced Institute of Science and Technology (ROK)
KCC	Korea computer center (DPRK)
KCNA	Korean Central News Agency (DPRK)
KCOE	Korean common operating environment
KCUT	Kim Chaek University of Technology (DPRK)
KDX-I, II, III	Korean Destroyer Next-Generation
KEDO	Korean Peninsula Energy Development Organization
KETRI	Korean Electrical Technology Research Institute (ROK)
KII	Korea information infrastructure project
KISTI	Korea Institute of Science and Technology Information (ROK)
KIX	Korea Internet exchange (ROK)
KNTDS	Korean Navy Tactical Data System
KOED	Korean ocean surveillance and intelligence system baseline upgrade evolutionary development
KORNET	Korea Telecom's Internet service provider
KOSDAQ	Korean Venture Capital Stock Exchange
KPAF	Korean People's Air Force (DPRK)
KPN	Korean People's Navy (DPRK)



KRNIC	Korea network information center (ROK)
KT	Korea Telecom
KTA	Korean Telecommunication Authority
JCS	Joint Chief of Staffs
JDIA	Japan's Self-Defense Intelligence Agency
JFK	Joint Forces Command (ROK)
JICPAC	Joint Intelligence Center Pacific Command (Hawaii)
JITC	US joint interoperability test center
JMCIS	joint maritime command information system
JSTARS	joint surveillance target attack radar system
JTIDS	joint tactical information distribution system
JV	joint venture
LAN	local area network
LCD	liquid crystal display
LGERI	LG Economic Research Institute
LOS	line of sight
M	million
M&A	mergers and acquisitions
MAG	management assistance group
MCRC	master control reporting center
m-commerce	mobile commerce -- the buying and selling of goods and services through wireless handheld devices such as cell phones and PDAs
MIC	Ministry of Information and Communication (ROK)
MIST	miniature interoperable surface terminal
MMS	multimedia messaging service
MOC	Ministry of Communications (ROK)
MPA	maritime patrol aircraft
MPAF	Ministry of People's Armed Forces (DPRK)
MPS	Ministry of People's Security (DPRK)
MTIG	Maritime Tactical Intelligence Group
MTR	military technological revolution
NADGE	NATO Air Defense Ground Environment
NCA	National Computerization Agency (ROK)

NCCS	new Central Command system (Japan)
NCS	net control station
NCW	network-centric warfare
NDC	National Defense Commission (DPRK)
NDRC	National Defense Reform Committee (ROK MND)
NGcN	next-generation consolidation networks
NGO	nongovernmental organization
NILE	NATO improved Link-Eleven
NM	nautical mile(s)
NT	nanotechnology
NTC4I	naval tactical command, control, communications, and intelligence
NW	network
OPSEC	operations security
OODA	observe, orient, decide, and act model
OOTW	civil-military operations other than war
OPEN	online procedures enhancement Web-based information system (ROK)
OS	operating system
OSIS	ocean surveillance and intelligence system
PC	personal computer
PCS	personal communication service
PDA	personal digital assistant
PDC	personal digital cellular
PDP	plasma display panel
PIC	Pyongyang Informatics Center
PGM	precision-guided munitions
PPP	purchasing power parity
PTV	projection television set
PU	participating unit
R&D	research and development
RFID	radio frequency-based service
RMA	revolution in military affairs
ROK MND	Republic of Korea Ministry of National Defense

ROKN	ROK Navy
RSTA	reconnaissance and target acquisition industrial management group
SAM	surface-to-air missile
SDR	software defined radio
SIGINT	signal intelligence
SIT	speech information technology
SLP	sensor link protocol
SME	small and medium enterprise
SME	subject matter expert
SMS	short messaging service
SPA	Supreme People's Assembly (DPRK)
SSD	State Security Department (DPRK)
ST	space technology
SW	software
TACCIMS	theater automated command and control information management system
TADIL	tactical digital information links
TBMCS	theater battle management core system
TCDL	tactical common data link
TDDL	time division data link
TDMA	time division multiple access
TDP	tactical data processor
TFT LCD	thin-film-transistor liquid-crystal display
TICN	tactical information communication network
TSC	tactical support center
UAV	unmanned aerial vehicle
UNDP	United Nations Development Programme
UNE	University of National Economy (DPRK)
UNIDO	United Nations Industrial Development Organization
USFK	U.S. Forces, Korea
USMTF	U.S. message text format
USN	United States Navy
VMF	variable message format
VOD	video on demand

VoIP	voice over the Internet phone
WAN	wide area network
WAP	wireless application protocol
W-CDMA	wideband code division multiple access
WiBro	wireless broadband Internet service
WFP	World Food Program
WINC	wireless Internet numbers for content
WLAN	wireless local area network
WMD	weapons of mass destruction
WPK	Workers' Party of Korea (DPRK)
XDSL	digital subscriber line

