A
acquisition: Acquisition Cross Service Agreements (ACSAs), 58–59; Advisory Panel on Streamlining and Codifying Acquisition Laws (Section 800 Panel), 171–172; DOD policy of price-based acquisition, 195–200; Federal Acquisition Reform Act, 1996 (FARA), 171; Federal Acquisition Regulations, 3; Federal Acquisition Streamlining Act, 1994 (FASA), 170–171; Value Based Acquisition (VBA) concept, 194–202

aircraft: EA-6B electronic warfare aircraft, 35; U-2 high-altitude, 35

Air Tasking Order (ATO), NATO, 240

All Volunteer Force (AVF): gender and racial integration, 207–210; professional competence, 210–211; as replacement for conscription, 5; success of, 13

Aspin, Les, 189–191

Atwood, Donald, 173


B
Biological Weapons Convention Protocol, 297

biowarfare defense (BWD): proposed laboratory for, 297; proposed National Information Assurance Institute, 297; in U.S. counter-proliferation efforts, 16–17, 124–125

Blue Ribbon Commission on Defense Management (Packard Commission), 53, 171–172
Bosnia, 256
burden sharing, 253–254
Bush, George H.W., 173
BWD. See biowarfare defense (BWD)

C

capstone requirements: Capstone Requirements Document (CRD), 73–74; in requirements process, 40–41, 46
Carlucci, Frank, 186–188
Carter, Ashton, 267
Central Intelligence Agency (CIA): establishment, 265; In-Q-Tel, 100–101. See also Director of Central Intelligence (DCI)
Central MASINT Organization (CMO), 106, 111
Chairman of the Joint Chiefs of Staff (CJCS): under a new administration, 292
Cheney, Dick, 189, 193
China, 260
CINCLOG, proposed, 21, 58
Civil Military Operations Centers (CMOCs), 257
Clark, Wesley, 243
Clinger-Cohen Act, 171, 173, 296
Clinton, Bill, 191
Cohen, William, 31n3, 174, 194, 197, 200
C2 (command and control): capabilities of, 76–77; defined, 61; Global Positioning System (GPS) technology, 62–63; integrated system, 66; interoperability and effectiveness, 75–77; interoperability in joint system, 66–67; jointness in military, 62–64, 66–89; need to create career paths in, 99–100; network-centric, 65; recommendations for joint, 77–89; of SOCOM, 74–75; use in DESERT STORM, 63
C3 compatibility: information security lacking in, 247–248; recommended encouragement of allied, 246; recommended for NATO and allies, 246, 248–249
C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance), 8, 16, 61, 245
Commander-in-Chief for Space (CINCSPACE), 93–95
Commander-in-Chief/Joint Forces Command (CINCJFCOM): proposed, 40, 47; proposed as advisor to JROC and DAB, 292; recommendations for functions of, 46–47
Commanders-in-Chief (CINCs): authority under
Goldwater-Nichols reforms, 6–7; under Goldwater-Nichols reorganization act, 288; proposed role in requirements process, 45–46; regional, 19
commercialization: of defense technology, 10; defined, 130; of DOD procurement practices, 131; effect on U.S. defense, 134–137
Commission on Combat Proliferation, 272
Commission on Roles and Missions of the Armed Forces (CORM), 174
computer network attack (CNA), 17, 65, 89, 91–98
computer network defense (CND), 17–18, 66, 89–98
Congress: impediments to DOD outsourcing, 179–180; role in a new administration, 300–301
cooperation programs: military-to-military, 258–261; Nunn-Lugar Cooperative Threat Reduction Program, 124, 259–260, 262; recommendations for military-to-military, 261–264
Counterproliferation Initiative, 123–125
counter-terrorism program, proposed, 15–16

D
DAB. See Defense Acquisition Board (DAB)
DCI. See Defense Capabilities Initiative (DCI); Director of Central Intelligence (DCI)
defense. See homeland, U.S.; national security system
Defense Acquisition Board (DAB), 292
Defense Advanced Research Projects Agency (DARPA), 17, 124
Defense Capabilities Initiative (DCI), 246
Defense Distribution Center: of DLA, 53; recommended new role for, 57–58
defense industry: future defense technology in commercial, 10–11; globalization of, 142–145; marketization of U.S., 130, 137–145; required systems engineering skills, 140; required transatlantic cooperation in, 3; U.S. should encourage trans-Atlantic cooperation in, 18
Defense Intelligence Agency (DIA), 70; Central MASINT Organization attached to, 106–107
Defense Leadership and Management Program, 232
Defense Logistics Agency (DLA), 53; Defense Distribution Center, 53; recommended assignment for, 57
Defense Reform Initiative (DRI), 174
Defense Reorganization Act (1986). See Goldwater-Nichols Act
Defense Resources Board (DRB), 8
Defense Science Board report (2000), 99–100
defense systems: cost to develop, 139; incorporation into system-of-systems, 139–140
Defense Technology Security Initiative, 22
Defense Threat Reduction Agency (DTRA), 17, 124
Defense Trade Security Initiative, U.S., 159
Department of Defense (DOD): application of private sector innovations to, 169–170; business affairs of, 166–168; Chief Information Officer (CIO), 94; Counterproliferation Initiative (1993), 123–125; current A-76 program under DRI, 181; Defense Reform Initiative Directive (DRID), 49–50, 54; Deputy Under Secretary for Logistics, 54; establishing military ties to China, 260; General Defense Intelligence Program (GDIP), 70–71; information operations in, 89–98; Intelligence Information System (DODIIS), 69–71; lacking links to NGOs, 256; liaison with United Nations, 256; Logistics Strategic Plan, 54; logistics transformation campaign, 49–52; management problems, 19–20; military-to-military programs, 19; planned initiatives as of June 2000, 174–175; post–World War II creation of, 265–266; price-based acquisition (PBA) policy, 195–200; proposed role in U.S. homeland defense, 128; recent acquisition and business process reforms, 170–175; recommendations for new president related to, 152–163; regional security centers, 19, 263; System Threat Assessment Report (STAR), 90
Department of Justice (DOJ): balancing responsibilities of national security and, 277–278
DESERT STORM: offset strategy in, 129–130; use of information technology during, 63
deterrence: in U.S. use of offset strategy, 129
Directorate for Intelligence (DI), 115
Director of Central Intelligence (DCI): recommended new responsibilities and authority for, 278–280
DLA. See Defense Logistics Agency (DLA)
DRID, See Defense Reform Initiative Directive (DRID)
DTRA. See Defense Threat Reduction Agency (DTRA)

E
Eisenhower, Dwight D., 4, 105, 269, 281, 287
European countries: need for military reform, 18
European Security and Defense Identity (ESDI), 18, 248
experimentation, joint, 44
export controls: current and potential future system, 148–149; function of Defense Trade Security Initiative for, 159; need to streamline and rationalize policy for, 22–23; policy, 298; recommendations for improving system of, 159–162

F
Federal Bureau of Investigation (FBI), National Security Division, 278
Federally Funded Research and Development Centers (FFRDCs), 8, 71, 100n12, 298
Financial Services Information Sharing and Analysis Center, 297n26
Forrestal, James, 286

G
Gansler, Jacques, 171, 174, 178–179
globalization: of defense industry, 142–145; of technology companies, 130
Global Positioning System (GPS), 63
Goldwater-Nichols Act: contributions and reforms of, 5–6, 30–31, 38, 229; provisions, 28n1, 226, 288–292
Gompert, David, 245
Government Performance and Results Act (1993), 170, 173
Grachev, Pavel, 259
Gulf Cooperation Council, 124

H
Hussein, Saddam, 16, 119–120, 123

I
IBS. See Integrated Broadcast Service (IBS)
imagery technology, 111–112
information: collected by global-scale sensors, 103; information dominance concept, 103–105; requirement to integrate streams of, 109–110
information operations: need to create career paths in, 98–99; throughout DOD, 89–98. See also computer network attack (CNA); computer network defense (CND)
information technology: computer network attack (CNA), 17, 65, 89, 91–98; computer network defense (CND), 17–18, 66, 89–98; DOD need to INDMaintain edge in, 8–12; future trends, 101–102;
information technology
t(continued)
gap between U.S. and allies in, 244–245; role in logistics deployment, 51; sensor-to-shooter systems, 65; system-of- systems approach, 64; use during DESERT STORM, 63. See also Revolution in Military Affairs (RMA); technologies, advanced
Information Technology Management Reform Act (1996), 171
infrastructure: DOD reform initiatives, 184–193; need to reduce waste, 20; President’s Commission on Critical Infrastructure Protection report, 97
Integrated Broadcast Service (IBS), 67–68. See also signals intelligence (SIGINT)
integration: of C2 systems, 66; function of requirement process in, 40; of intelligence into military operations, 109–110; proposed for NSC and some executive departments, 277; of streams of information, 109–110
intelligence: changes to improve dominance in, 108–117; collection and analysis functions related to, 107–108; create international coalitions for, 110–111; Defense Intelligence Agency (DIA), 70; measurement and signal intelligence (MASINT), 106; need to improve current collection and analysis, 107–108; need to preserve edge in, 12–13; recommended expansion of international cooperation in, 116–117; recommended support for export controls, 161; sharing tactical signal intelligence (SIGINT), 66–67. See also Defense Intelligence Agency (DIA); information; sensors
intelligence structure: needed modernization of current, 104–107; recommended consolidation of collection agencies into NSA, 111–114
interoperability: C2 (command and control), 75–77; failures undermining, 72–73; in joint system, 66–67
Israel, 124
Japan, 124
JFCOM. See Joint Forces Command (JFCOM)
Joint Blueprint Office: Global Information Grid, 8
Joint Chiefs of Staff (JCS): functions related to logistics, 53–54; Joint Vision 2020, 31
Joint Force Information Operations Component Commander (JFIOCC), 95
Joint Forces Command (JFCOM): proposed new role for, 110; recommended role in joint requirements, 8; role in joint experimentation, 44
jointness: C2 potential for, 62–64, 66–89, 77–89; joint readiness,
33; need for additional, 30–32; recommendations for, 6–8; role of RMA in implementing, 119
Joint Requirements Oversight Council (JROC): intent to strengthen role of, 110; role of, 8, 39–41, 44–45; validation of new system proposals by, 39
Joint Vision 2010/2020, 103–104
Joint Vision 2020, 31, 50, 238
Joint Warfighting Capabilities Assessment (JWCA), 39–40
Joulwan, George, 259

K
Key West Agreement (1948), 286–287
Kim Jong-II, 16
Korea, 124
Kosovo campaign: NATO weaknesses in, 240–249; Russian forces participating in, 259
Kugler, Richard, 245

L
Lake, Anthony, 272
Lambeth, Benjamin, 242
Libicki, Martin, 245
LOGCOM (unified logistics command): components and functions of proposed, 57–58; recommendation to create, 21, 57–59
logistics: Defense Logistics Agency (DLA), 53; demand reduction, 49, 52; DOD transformation campaign for, 49–52; new technology needed to improve, 21, 37; recommendations for, 57–58; required responsiveness of, 48–52

M
McNamara, Robert, 38
Meyer, Edward C., 137
military personnel: under All Volunteer Force (AVF), 207–213; combat training and leadership development, 29–30; compensation policy, 13; create career paths in C2 and information, 98–99; future challenges for system of, 213–217; Military Occupational Specialty (MOS) 74B, 98–99; need to recruit and retain high quality, 29, 33–34; recommended base compensation, 217–218; recommended quality-of-life policy, 218; recruiting policies and career paths, 13–14
military services: All Volunteer Force, 5, 13, 207–211; need to improve requirements process for, 37–46; shaping missions of U.S., 239–240; shaping role for, 260–261. See also requirements process
Milosevic, Slobodan, 16, 240
modernization: of equipment (1980s, 1990s), 35; needed for current intelligence structure, 105–107; recommended increased funding for, 36–37
National Assessment Center (NAC), 115–116, 297
National Commission on Public Service (Volcker Commission), 229
National Defense Panel recommendations, 57–58
National Imagery and Mapping Agency (NIMA), 106, 111
National Information Assurance Institute, proposed, 97–98
National Partnership for Re-inventing Government, 174
National Performance Review (NPR), 173–174. See also National Partnership for Re-inventing Government
National Reconnaissance Office (NRO), 105–106, 111, 113
National Security Act (1947), 265–266, 286, 289
National Security Advisor: proposed Deputy, 127, 281–283, 297, 300
National Security Agency (NSA), 105; recommended re-structuring of, 111–114; responsibility for signals intelligence, 106
National Security Council (NSC): challenges to present structure of, 268–276; as coordinator for catastrophic terrorism, 126–127; limitations of present, 14–15; post–World War II role, 265–266; proposed change in, 277; proposed integration of some executive departments with, 277; proposed strengthening of inter-agency role, 281–283; recommended new planning arm for, 127
national security system, U.S.: balancing responsibilities of law enforcement and, 277; managerial and organizational problems, 2–4; under National Security Act (1947), 286; post–World War II plan of, 5; present shortcomings, 273–274; proposals for reorganization, 271–272; proposed centralized management, 273; proposed regional structure, 273–274, 276; recommended security policy task force, 162; required new missions for defense, 14
NATO (North Atlantic Treaty Organization): Defense Capabilities Initiative (DCI), 246; Partnership for Peace (PFP), 19, 260–261, 263; proposed Combined Joint Task Force (CJTF), 18; recommended Combined Joint Task Force (CJTF) in, 246; Senior Defense Group on Proliferation, 124; weaknesses in Kosovo campaign, 240–249
networks: network-centric warfare, 64–65, 90. See also computer network attack (CNA); computer network defense (CND)
Nixon, Richard M., 186
Nixon administration, 205
nongovernmental organizations (NGOs), 255–257
NRO. See National Reconnaissance Office (NRO)
Nunn-Lugar Cooperative Threat Reduction Program: funding and technical support under, 19, 259–260; for international cooperation, 19, 124, 262, 291n17

O
Office of Management and Budget (OMB): A-76 policy related to public sector competition, 177, 180–181; proposed work with Deputy National Security Advisor, 281–283; role in interagency budget coordination, 127
offset strategy, U.S.: during Cold War, 129–130; in DESERT STORM, 129–130; proposals for preservation of, 130–134
operations and INDMAINtenance (O&M): increased spending for, 34–36
outsourcing: potential for DOD functions, 177–184; recommended DOD program for, 181–184; recommended for DOD, 181–182

P
Packard Commission (1986). See Blue Ribbon Commission on Defense Management (Packard Commission)
peacekeeping: recommended U.S. selective efforts in, 253–254; Russian participation in Bosnia, 258–261; United Nations in Sierra Leone, 249–253
Perry, William, 172–173, 259, 266–267
peacekeeping personnel. See civilian personnel; military personnel
Presidential Decision Directives (PDDs), 255–256, 297, 299
President’s Commission on Critical Infrastructure Protection report (1997), 97

Q
Quadrennial Defense Review (QDR), 165n1, 166, 181

R
radar systems: Airborne Warning and Control System (AWACS), 35, 109; Joint Surveillance and Target Acquisition Radar System (JSTARS), 35, 109
RBA. See Revolution in Business Affairs (RBA)
readiness: aspects requiring attention, 35–36; components of, 32–33; demands of peacekeeping interfere with, 35; equipment modernization requirement, 34–35; high-quality people as contributor to, 33; increased O&M spending for, 34; INDMAINtaining aging equipment, 34–35; need to improve, 32–33; recommendations for, 36–46
Reagan administration, 186
reconnaissance: create international coalitions for, 110–111; National Reconnaissance Office (NRO), 105–106, 111, 113
requirements process: budget considerations in, 44–45; capstone requirements, 40–41, 46; challenges for, 41–43; criticism of, 44–45; favoring innovation, 43; functions of, 39–41, 45; joint requirements, 42; need to improve, 37–38; recommendations for, 46
research and development (R&D): DOD past and current spending for, 134–135; FFRDCs, 8, 71, 100n12, 298; independent research and development (IR&D), 135, 292, 298; old habits of DOD, 3
Revolution in Business Affairs (RBA): competitive sourcing, 176–184; implementing strategy for, 298–299; infrastructure initiatives, 184–193; recommendation to increase DOD's goals for, 21; supports RMA, 165–166; systems acquisition, 194–202
Revolution in Military Affairs (RMA), 30; first, 119; incompleteness of, 62–62; new weapons, 121–123; potential of, 64–65; progress of, 244; second, 119; supported by RBA, 165–166; vulnerabilities of, 65–66
Ribicoff, Abraham, 187
RMA. See Revolution in Military Affairs (RMA)
S
satellites, 106
secrets: defining, 151; protection of, 21–23, 145–151
Section 800 Panel. See acquisition
sensors: electronic support measures, 109; global-scale, 103, 105; NSA recommended as manager of system of, 111; organic systems, 105, 109; remote, 111–113; tracking things flying in airspace, 72
Sierra Leone: lessons of, 252–253; UN peacekeeping mission in, 249–251
signals intelligence (SIGINT), 66–67, 105–106
Single Integrated Air Picture (SIAP), 71–74
SOCOM. See Special Operations Command (SOCOM)
Somalia, 289n12
space: Commander-in-Chief for Space, 93–96; U.S. Space Command, 93n9
Special Operations Command (SOCOM), 74–75
surveillance: create international coalitions for, 110–111; Joint Surveillance and Target Acquisition Radar System (JSTARS), 35, 109
system-of-systems architecture: recommended plug-ins for allies, 246–247; in U.S. information technology, 64
System Threat Assessment Report (STAR), 90
technologies, advanced: as basis for changes in weapons, targeting, and communications systems, 104; gap between U.S. and allies, 244–245; Global Positioning System (GPS), 62–63; used by United States in DESERT STORM, 129–130. See also imagery technology

technology: commercial, 131–132, 134–137; DOD need to INDMAINTAIN edge in, 9–12; growth of commercial base, 134–137; hermetic seal model of denying, 21–23, 146–151; immune system model, 21–23; need for cutting edge, 30

terrorism: National Coordinator for Security, Infrastructure Protection, and Counter-Terrorism, 281n16; proposed counter-terrorism program, 15–16

terrorism, catastrophic: current U.S. preparation for, 125–126; need for national program to address, 127; used on U.S. homeland, 120–121

threats: Defense Threat Reduction Agency (DTRA), 17, 124; expectations of asymmetric, 166; post–Cold War, 266–269

U

Unified Command Plan, 293

United Kingdom, 124

United Nations: peacekeeping force in Sierra Leone, 249–253; recommendation for United States to strengthen, 253–254

United States: future military technology, 145–151; military-to-military cooperation with Russia, 258–261; need to interact with international organizations, 255–257; recommended bilateral counter-proliferation efforts, 124; recommended role in promoting UN policing force, 254–255; revised role in peace operations, 18–19; role in UN Sierra Leone peacekeeping mission, 251

U.S. Army: Civil Affairs and Psychological Operations units, 35; Tactical Operations Center (TOC), 99

U.S. Army Medical Research Institute of Infectious Disease (USAMRIID), 17, 124

U.S. Commission on National Security in the Twenty-First Century, Phase II/Phase III reports, 271

U.S. Joint Forces Command (USJFCOM), 31, 78–89

U.S. Space Command (USSPACECOM), 93n9, 99
Volcker commission. See National Commission on Public Service (Volcker Commission)

Warfare: countermeasures to asymmetric, 16-17, 121; electronic warfare (EW), 109; information technology impact on, 64-66; information warfare, 17-18; network-centric, 64-65, 90. See also biowarfare defense (BWD)

WMDs (weapons of mass destruction): cooperative programs to reduce threat of, 19; under DTRA, 124; as post–Cold War threat, 267