

INDEX

- Active sonar, 131-134
- AEW radars, 100-101
- AEW terminal equipment, 120-121
- Air-search radars, 98-99
- Air-search 2-coordinate radars, 107-110
- Air-search 3-coordinate radars, 110-112
- Altitude-determining radars, 99
- Amplitude modulation, 20
- Antenna stabilization data equipment, 123-124
- Antennas, 96-97
 - barrel stave antenna, 97
 - bedspring array, 97
 - billboard array, 97
 - paraboloidal antenna, 97
- Antennas and propagation, 18-19
- Auxiliary equipment 55-64, 115-124
 - AEW terminal equipment, 120-121
 - antenna multicouplers, 57-58
 - antenna stabilization data equipment, 123-124
 - antenna tuning, 55-57
 - IFF equipment, 121-123
 - remote-control units, 61-64
 - repeaters (indicators), 115-120
 - transfer panels (transmitter and receiver), 58-61
- Azimuth-range indicator, 144-146
- Basic computer, 173-192
 - central processing unit, 174
 - components used, 178
 - computer tools, 179
 - operational features, 192
 - operations of, 178
- Bathythermograph, 148-150
 - expendable AN/SSQ-56, 150
 - mechanical, 148-150
- Buffer-frequency multiplier, 19
- Carrier control approach (CCA) equipment, 213-215
- Classification of radio emissions, 26-28
- Closed-circuit television, 209-210
- Communication console, 211-213
- Component identification, 2
- Conical monopole antenna, 53
- Continuous wave radar, 101-104
- Continuous-wave transmitter, 19-20
- Data Processing Line Printer RO-302/UYK-5-(V), 186, 190
- Data Processing Set AN/UYK-1, 189-191
- Data Processing Set AN/UYK-5(V), 184
- Digital computers, 173-192
- Digital Data Computer CP-789(V)/UYK, 184-186
- Digital Data Recorder-Reproducer RD-270(V)/-UYK, 186-187
- Doppler effect, 101, 169-170
- Dosimeter, 220
- Electronic countermeasures, 210
- Electronic data processing equipments, 179-183
- Electronic navigation aids, 151-172
- Electronic terms, 4-16
- Facsimile (FAX), 81-86
 - facsimile recorder AN/UXH-2B, 84
 - facsimile recorder RD-92()/UX, 83
 - keyer adapter KY-44()/FX, 84-85
 - modulator MD-168()/UX, 85
- Fan antenna, 52
- Fathometers, 135, 143-144
- Fire control and missile guidance radars, 112-115
- Fire control radars, 99-100, 115
- Frequency bands, 18
- Frequency carrier-shift system, 67
- Frequency modulation, 21
- Frequency spectrum, 17-18
- Glossary and nomenclature, 1-16
- Guided missile launcher, 203
- Gunfire control system, 205
 - gun director and computer, 205
 - target designation system, 205
- HF receivers, 43-48
- HF transmitters, 29-36
- IFF equipments, 121-123
- IFF systems, 104
- Infrared equipment, 215-217
- Integrated doppler navigation, 169-170
- Joint Electronic Type Designation System, 1-3

- Keyer adapter KY-44()/FX, 84-85
 Keyers and converter, 73-75
- Launcher feeder, 203
 LF receivers, 43-48
 Loran navigation system, 151-160
 equipments, 156-159
 Omega navigation system, 159
 principle of, 151-156
 Shoran, 159-160
- Mechanical bathythermograph, 148-150
 Meteorological equipment, 217-219
 MF receivers, 43-48
 MF transmitters, 29-36
 Mine hunting sonar, 134-135, 140-143
 Missile guidance radars, 100, 115
 Modulator, 91-92
 Modulator MD-168()/UX, 85
 Multiplexing, 79-81
- Navigation aids (electronic), 151-172
 Nomenclature and glossary, 1-16
- Omega navigation system, 159
 Oscillator, 19
- Paraboloidal antenna, 97
 Passive sonar, 130-131
 Patch panels, 75-78
 Power amplifier, 19
 Power supply, 19-20
 Pulse-modulated radar system, 90-96
 indicator (repeater), 94-96
 modulator, 91-92
 receiver, 92-94
 transmitter, 92
- Radar, 87-104
 altitude determination, 89
 bearing determination, 88-89
 range determination, 87-88
 theory of operation, 87-89
- Radar equipment, 105-124
 Radar functions and characteristics, 97-104
 AEW radars, 100-101
 air-search radars, 98-99
 altitude-determining radars, 99
 continuous wave radar, 101-104
 doppler effect, 101, 169-170
 fire control radars, 99-100
 missile guidance radars, 100
 surface-search radars, 97-98
- Radar set AN/SPS-5(), 105
 Radar set AN/SPS-6C, 107-110
- Radar set AN/SPS-8A, 112
 Radar set AN/SPS-10(), 105-106
 Radar set AN/SPS-21(), 107
 Radar set AN/SPS-29(), 110
 Radar set AN/SPS-30(), 112
 Radar set AN/SPS-40, 110
 Radar sets AN/SPS-42 and -39A, 112
 Radar set AN/SPS-48(V), 112
 Radar set AN/SPS-52, 112
 Radar set AN/SPS-53A, 107
 Radiac equipment, 219-223
 dosimeter, 220
 ratemeter, 220-223
- Radio, 17-28
 Radio communications
 digital data, 17
 radiofacsimile, 17
 radiotelegraphy, 17
 radiotelephony, 17
 radioteletype, 17
- Radio direction finders, 207-209
 Radio emissions classifications, 26-28
 Radio equipment, 29-65
 Radio Navigation Set AN/SRN-9, 164-168
 Radio operating positions and remotes, 2-3
 Radio receiver AN/BRR-3, 44-45
 Radio receiver AN/SRR-11, 44, 46
 Radio receiver AN/SRR-19A, 44-45
 Radio receiver AN/URR-21(), 49
 Radio receiver AN/URR-27(), 49
 Radio receiver AN/URR-35C, 49-50
 Radio receiver AN/URR-44, 47
 Radio receiver AN/WRR-2B, 44, 47
 Radio receiver AN/WRR-3B, 44, 47
 Radio receiver R-390A/URR, 47-48
 Radio receiver R-1051B/URR, 48
 Radio receiver RBA, 44, 46
 Radio transceiver AN/PRC-10(), 41
 Radio transceiver AN/PRC-25, 42
 Radio transceiver AN/PRC-41, 43
 Radio transceiver AN/URC-4(), 42-43
 Radio transceiver sets AN/URC-9(), AN/SRC-20(), -21(), 39
 Radio transceiver AN/URC-32B, 35
 Radio transceiver AN/URC-35, 35-36
 Radio transceiver AN/URC-58(V), 34-35
 Radio transceiver AN/VRC-46, 37
 Radio transceiver SCR-536(), 41-42
 Radio transmitter AN/CRT-3A, 39
 Radio transmitters AN/SRT-14, -15, and -16, 29-31
 Radio transmitter AN/URT-7(), 37-38
 Radio transmitter AN/URT-23(V), 33-34
 Radio transmitter AN/URT-24, 33
 Radio transmitter AN/WRT-1A, 31

- Radio transmitter AN/WRT-2, 31
 Radio transmitter model TED, 38
 Radio transmitter-receiver AN/GRC-27A, 38-39
 Radio transmitter-receiver AN/SRC-16, 36-37
 Radio transmitter-receiver AN/SRC-23(V), 31-32
 Radio transmitter-receiver AN/WRC-1(), 33
 Radio transmitter-receiver model TCS-(), 32-33
 Radioteletype (RATT) systems, 67
 Ratemeter, 220-223
 Receivers, 22-26, 43-49, 92-94
 multiplexing, 26
 radiofrequency receiver, 22-23
 single-sideband communications, 24-25
 superheterodyne AM & FM receiver, 23-26
 UHF receivers, 48-49
 VHF receivers, 48-49
 VLF, LF, MF, and HF receivers, 43-48
 Recorder-reproducer, 146-148
 Remote-control units, 61-64
 Remote transmitter control unit C-1004() /SG, 78
 Representative missile fire control system, 201-205
 Representative weapons system, 195-201
 target detection, location, and identification, 195
 weapon control system, 195-198
 weapon direction equipment, 198-201
 Satellite Navigation System, 160-170
 description of, 161
 integrated doppler navigation, 169-170
 Radio Navigation Set AN/SRN-9, 164-168
 Shipboard antennas, 49-55
 conical monopole antenna, 53
 fan antenna, 52
 sleeve antenna, 52-53
 VHF-UHF antennas, 53-55
 whip antennas, 52
 wire antennas, 51-52
 Shipboard weapons control system, 193-206
 Ships Inertial Navigation System (SINS), 160
 Shoran, 159-160
 Sleeve antenna, 52-53
 Sonar, 125-135
 types of, 130-135
 active sonar, 131-134
 fathometer (depth-sounding sonar), 135
 mine hunting sonar, 134-135
 passive sonar, 130-131
 variable depth sonar, 134
 Sonar accessories, 144-150
 azimuth-range indicators, 144-146
 bathythermograph, 148
 extendable bathythermograph AN/SSQ-56, 150
 mechanical bathythermograph, 148-150
 recorder-reproducer, 146-148
 target course projector, 146
 Sonar equipment, 136-150
 Sonar set AN/SQS-4(), 136
 Sonar set AN/SQS-23(), 138
 Sonar set AN/SQS-26(), 140
 Sonar sets AN/SQS-29() to -32(), 136-138
 Sound, 125-129
 generation of, 125
 sound paths and modes of detection, 126-129
 layer depth, 127
 thermal gradients, 127
 transmission of, 125
 Surface-search radars, 97-98, 105-107
 Surface ship equipments, 136-144
 Tacan navigation system, 170-172
 AN/SRN-6() radio set, 171-172
 Target control system, 215
 Target course projector, 146
 Target designation system (TDS), 205
 Telegraph terminal set AN/UCC-1(V), 79
 Teletype and facsimile, 66-86
 Teletype equipment, 67-78
 Teletypewriter set AN/UGC-6, 71-73
 Teletypewriter set AN/UGC-13, 73-74
 Teletypewriter set AN/UGC-20, 70
 Teletypewriter set AN/UGC-25, 71
 Teletypewriter set TT-47() /UG, 69-70
 Teletypewriter set TT-48() /UG, 69-70
 Teletypewriter set TT-69() /UG, 70
 Teletypewriter set TT-176A/UG, 70
 Tone-shift modulation system, 67
 Transducers, 129-130
 cylindrical array, 130
 electrostrictive process, 130
 magnetostrictive process, 129-130
 Transfer panels, 58-61
 Transmitter, 92
 Transmitters, transmitter-receivers, and transceivers, 29-43
 high-frequency transmitters, 29-36
 medium-frequency transmitters, 29-36
 portable and pack radio equipment, 39-43
 UHF transmitters, 38-39
 VHF transmitters, 37-38
 UHF receivers, 48-49
 UHF transmitters, 38-39

INDEX

Underwater telephone, 210-211
Uniform Automatic Data Processing System
(UADPS), 189

Variable depth sonar, 134
Variable depth sonar set AN/SQA-10,
140
VHF receivers, 48-49
VHF transmitters, 37-38
VHF-UHF antenna, 53-55
VLF receivers, 43-48

Voice modulation, 20-22
amplitude, 20
frequency, 21

Weapons system concept, 193-195
control units, 194
delivery units, 194
destructive unit, 194-195
detecting units, 193-194
Whip antenna, 52
Wire antenna, 51-52

56

129

3-43

