DISCLAIMER NOTICE

THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.
This publication has been designed to allow each directorate to highlight major research areas and to promote an intercooperative use of these areas between Laboratory scientists and other agencies. Because the brief descriptions give only a general overview of the wide range of tests NRL can accommodate, the prospective user is invited to contact the individuals identified with each facility for additional information.

This is the first NRL publication to be created entirely electronically. The text was scanned and edited in MS Word and was then imported into PageMaker 5.0 on the Macintosh. Original and copy negatives of the facilities were scanned, digitized, and placed on Kodak Photo CDs. The digital images were opened from the Photo CD, converted from RGB to grayscale, electronically enhanced, and saved as 300 dpi grayscale images in Adobe Photoshop. They were then dropped into the PageMaker layouts containing text. The entire digital file with linked grayscale images was produced in negative form on a Linotronic 330 imagesetter and sent to a commercial printer for offset printing.

On the Cover:

1. Visualization Laboratory - Code 5707, p. 77
2. The Connection Machine - Code 5590.3, p. 43
5. Optical Device Fabrication Facility - Code 5671, p. 67
6. GOES Antenna - Code 7540, p. 277
7. Millimeter-Wave Atmospheric Sounder - Code 7227, p. 241

Quick Reference Telephone Numbers

<table>
<thead>
<tr>
<th>NRL</th>
<th>NRL-</th>
<th>NRL-</th>
<th>NRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>WASHINGTON</td>
<td>SSC</td>
<td>MONTEREY</td>
<td>CBD</td>
</tr>
<tr>
<td>Hotline</td>
<td>(202) 767-6543</td>
<td>(601) 688-5001</td>
<td>(408) 656-4737</td>
</tr>
<tr>
<td>Personnel Locator</td>
<td>(202) 767-3200</td>
<td>(601) 688-3390</td>
<td>(408) 656-4706</td>
</tr>
<tr>
<td>AUTOVON (Incoming)</td>
<td>297- or 354-</td>
<td>485</td>
<td>878</td>
</tr>
<tr>
<td>Direct-in-Dialing</td>
<td>767- or 404-</td>
<td>688</td>
<td>656</td>
</tr>
<tr>
<td>Public Affairs</td>
<td>(202) 767-2541</td>
<td>(601) 688-5328</td>
<td>(408) 656-4708</td>
</tr>
<tr>
<td>—</td>
<td>—</td>
<td>257</td>
<td>—</td>
</tr>
</tbody>
</table>
Contents

1000 7 Executive Directorate

3000 9 Business Operations Directorate

3500 12 Research and Development Services Division

5000 15 Systems Directorate

5200 18 Technical Information Division

5300 26 Radar Division

5500 38 Information Technology Division

5600 44 Optical Sciences Division

5700 74 Tactical Electronic Warfare Division

7  Ruth H. Hooker Research Library and Technical Information Center

9  Visual Design/Imaging Center

12  Chesapeake Bay Detachment

15  Video Editing Facility

24  Photographic Facility

26  Radar Signature Calculation Facility

28  Compact Range Facility

30  Electromagnetic Interference Test Chamber

32  Radar Test Facility

34  Identification System R&D Test-Bed

36  Radar Imaging Facility

38  Information Security Engineering Laboratory

40  High Performance Networking Test-Bed Facility

42  Massively Parallel Computation Facility

44  Infrared Glass Fiber Drawing Facility

46  Clean Room Facility

48  Laser Probe Facility

50  Nanochannel Glass Technology Facility

52  Silica Glass Preform and Fiber Fabrication Facility

54  Seeker Simulation Laboratory

56  High-Precision Optical Tracker

58  Focal Plane Array Evaluation Facility

60  Pulsed Chemical Laser Facility

62  Argon-Pumped Titanium:Sapphire Laser Facility

64  Ultrashort Pulse Generation Facility

66  Optical Device Fabrication Facility

68  Thin-Film Fabrication Facility

70  Fiber-Optic Microwave Laboratory

72  Fiber-Optic Sensor Facility

74  Virtual Environment Laboratory

76  Visualization Laboratory

78  Off-Board Test Platform

80  Radar Cross-Section Measurement Laboratory
Transportable Radar Cross-Section Measurement Radar
Vehicle Development Laboratory
Advanced Tactical Electronic Warfare Environment Simulator
Mobile ESM Laboratory
Compact Antenna Range Facility
Isolation Measurement Chamber Facility
Millimeter-Wave Anechoic Chamber Facility
RF Techniques Chamber Facility
Low-Power Anechoic Chamber Facility
Search Radar ECM Simulator
Electro-Optics Mobile Laboratory
Infrared Missile Simulator and Development Laboratory
Infrared/Electro-Optical Calibration and Characterization Laboratory
Scale Model Analysis Facility
Secure Supercomputing Facility
Central Target Simulator Facility
Flying Electronic Warfare Laboratory

**Materials Science and Component Technology Directorate**

**Laboratory for Structure of Matter**
Diffractometers

**Chemistry Division**
Mass Spectrometry Facility
Magnetic Resonance Laboratory
Polymer and Composite Properties
Tribology Laboratory
Chemical Vapor Processing Laboratory
Nanometer Characterization/Fabrication Facility
Surface Analytical Facility
Large-Scale Damage Control Facility
Fire Research Enclosure
Fire Research Platform

**Materials Science and Technology Division**
Marine Corrosion Facility
Chemical and Structural Characterization Facilities
Mechanical and Thermal Experimental Facilities
Materials Processing Facilities
Magnetics and Superconducting Processing Facilities
Electro-Magnetic and Thermal Characterization Facilities
Computer-Controlled Universal Material Test System
Nondestructive Experimental Facilities

**Laboratory for Computational Physics and Fluid Dynamics**
Parallel High-Performance Computer/Graphics Facility

**Condensed Matter and Radiation Sciences Division**
High-Power Microwave Facility
Ion Implantation Facility
Pulsed Laser Deposition and Plasma Characterization Facility
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6700</td>
<td><strong>Plasma Physics Division</strong></td>
</tr>
<tr>
<td>166</td>
<td>3 MV Tandem Van De Graaff Accelerator</td>
</tr>
<tr>
<td>168</td>
<td>Synchrotron Radiation Facility</td>
</tr>
<tr>
<td>170</td>
<td>Hypervelocity Impact Facility</td>
</tr>
<tr>
<td>172</td>
<td>Nike KrF Laser Facility</td>
</tr>
<tr>
<td>174</td>
<td>Relativistic Klystron Laboratory</td>
</tr>
<tr>
<td>176</td>
<td>Subscale Electromagnetic Launcher</td>
</tr>
<tr>
<td>178</td>
<td>Charged Particle Beam Physics Laboratory</td>
</tr>
<tr>
<td>180</td>
<td>Large-Volume Space Chamber</td>
</tr>
<tr>
<td>182</td>
<td>Gamble II</td>
</tr>
<tr>
<td>184</td>
<td>Hawk</td>
</tr>
<tr>
<td>186</td>
<td>Long-Pulse Accelerator Laboratory</td>
</tr>
<tr>
<td>188</td>
<td>High-Frequency Microwave Materials Processing Laboratory</td>
</tr>
<tr>
<td>190</td>
<td>Pharos III Laser System</td>
</tr>
<tr>
<td>192</td>
<td>T-Cubed Laser System</td>
</tr>
<tr>
<td>6800</td>
<td><strong>Electronics Science and Technology Division</strong></td>
</tr>
<tr>
<td>194</td>
<td>Nanoelectronics Processing and Penthouse Facilities</td>
</tr>
<tr>
<td>196</td>
<td>High-Resolution Transmission Electron Microscopy Facility</td>
</tr>
<tr>
<td>198</td>
<td>Si Molecular Beam Epitaxy and Surface Analysis System Facility</td>
</tr>
<tr>
<td>200</td>
<td>Vacuum Electronics Engineering Facility</td>
</tr>
<tr>
<td>202</td>
<td>Laboratory for Advanced Material Synthesis</td>
</tr>
<tr>
<td>204</td>
<td>High-Temperature Superconducting Thin-Film Growth Facility</td>
</tr>
<tr>
<td>206</td>
<td>Semiconductor Properties Laboratory</td>
</tr>
<tr>
<td>208</td>
<td>Bulk Crystal Growth Facility</td>
</tr>
<tr>
<td>210</td>
<td>Molecular Beam Epitaxy of III-V Semiconductors</td>
</tr>
<tr>
<td>7000</td>
<td><strong>Ocean and Atmospheric Science and Technology Directorate</strong></td>
</tr>
<tr>
<td>213</td>
<td>Acoustic Measurement Arrays and Containerized Processing Facility</td>
</tr>
<tr>
<td>7100</td>
<td><strong>Acoustics Division</strong></td>
</tr>
<tr>
<td>216</td>
<td>High-Frequency Acoustic Scattering Facility</td>
</tr>
<tr>
<td>218</td>
<td>Laboratory for Structural Acoustics</td>
</tr>
<tr>
<td>220</td>
<td>Acoustic Simulation and Processing Center</td>
</tr>
<tr>
<td>222</td>
<td>Multichannel Data Processing Laboratory</td>
</tr>
<tr>
<td>224</td>
<td>Transportable High-Frequency Acoustic Measurement and Data Acquisition System</td>
</tr>
<tr>
<td>226</td>
<td>Tactical Oceanography Simulation Laboratory</td>
</tr>
<tr>
<td>7200</td>
<td><strong>Remote Sensing Division</strong></td>
</tr>
<tr>
<td>230</td>
<td>Airship Suspended Platform</td>
</tr>
<tr>
<td>232</td>
<td>Washington Very Long Baseline Interferometry Correlator</td>
</tr>
<tr>
<td>234</td>
<td>Maryland Point Radio Observatory</td>
</tr>
<tr>
<td>236</td>
<td>Visualization Center</td>
</tr>
<tr>
<td>238</td>
<td>Mark III Optical Interferometer</td>
</tr>
<tr>
<td>240</td>
<td>Millimeter-Wave Atmospheric Sounder</td>
</tr>
<tr>
<td>242</td>
<td>Water Vapor Millimeter-Wave Spectrometer</td>
</tr>
</tbody>
</table>
244  Satellite Data Receiving and Processing System
246  Ocean Ground Truth Facilities
248  Remote Sensing Hydrodynamics Research Facility
250  Littoral Remote Sensing Modeling and Simulation System

7300  Oceanography Division
252  Environmental Modeling and Simulation Network
254  Towed Sensor System
256  Turbulence Measurement Systems
258  Acoustic Current Meter Facility
260  Environmental Microscopy Facility

7400  Marine Geosciences Division
262  Airborne Geophysical Sensor Suite
264  Airborne Data Acquisition and Logging Environment Facility
266  Dual-Use Analysis Center
268  Map Data Formatting Facility
270  Magnetics Observatory

7500  Marine Meteorology Division
272  Tactical Environmental Support System Laboratory
274  Visualization Laboratory
276  GOES Antenna
278  Computer Facility

7600  Space Science Division
280  Synthetic Scene Generation Model
282  Backgrounds Data Center
284  Vacuum Ultraviolet Calibration Facility
286  Oriented Scintillation Spectrometer Experiment
288  Vacuum Ultraviolet Space Instrument Test Facility
290  Solar Ultraviolet Spectral Irradiance Monitor
292  Yohkoh Mission Data Analysis Facility
294  Electron Beam Ion Trap Facility

8000  297  Naval Center for Space Technology

8000  NCST Directorate
300  Sensitive Compartmentalized Information Data Processing Facility

8100  Space Systems Development Department
302  Spacecraft Subsystem Facility
304  Satellite Mission Analysis Facility
306  Laser Physics and Electro-Optics Laboratory Facilities
308  Precision Radio Frequency Anechoic Chamber Facility
310  Secure Payload Development Facility
312  Electronic Systems Integration and Test Secure High-Bay Facility
314  Radio Frequency Anechoic Chamber Facility
316  Spacecraft Radio Frequency Development Facility
318  Electromagnetic Interference/Electromagnetic Compatibility Test Facility
320  Spacecraft Battery Laboratory
322  Ground Station Assembly and Test Facility
324  Radio Frequency Compact Range Facility
8200 **Spacecraft Engineering Department**

- Precision Spacecraft Calibration Facility
- Building 660
- Blossom Point Satellite Tracking and Command Station
- Precision Clock Evaluation Facility
- Spacecraft Vibration Test Facility
- Spacecraft Assembly and Test Facility
- Integrated Design Facility
- Thermal High-Vacuum Chamber Facility
- Spacecraft Acoustic Reverberation Chamber Test Facility
- Spacecraft Spin Test Facility
- Reshape Facility
- Electronics Thermal Control Facility
- Modal Survey Test Facility
- Spacecraft Static Loads Test Facility
- Spacecraft Thermal Blanket Facility
- "Class 100" Clean Room Facility
- Spacecraft Propulsion System Welding Facility
- Fuels Testing Laboratory
- Orbit Dynamics and Visualization Facility

365 **General Information**

- National Airport to Naval Research Laboratory (Washington, DC)
- Naval Research Laboratory (Washington, DC)
- Location of Buildings at NRL Washington
- Chesapeake Bay Detachment (Chesapeake Beach, MD)
- Location of Buildings at Chesapeake Bay Detachment
- John C. Stennis Space Center (Stennis Space Center, MS)
- Naval Research Laboratory Monterey (Monterey, CA)
- Index