

310 SCIENCE LABORATORIES

Buildings used directly in theoretical or applied research, development and testing operations related to basic research such as chemistry, materials, medical, biological, sonic, physics, geophysics, etc.

310 11 ASTRONOMY AND ASTROPHYSICS LABORATORY (SF)

A facility required to support the investigation of radio astronomy equipment, satellite research, and development for navigational and communication programs. The facility is also utilized in conducting research and development in the fields of atmospheric physics, astrophysics in radio, radar and meteor astronomy, upper air physics, rocket astronomy, solar spectroscopy, and cosmic radiation, etc.

310 13 CHEMISTRY AND TOXICOLOGY LABORATORY (SF)

The facility required to support the conducting of research, development, test and evaluation in the areas of physical, organic, inorganic, nuclear, and biological chemistry, directed towards problems concerning fuels, lubricants, corrosion, protective coatings, electrochemistry, submarine atmosphere purification, protection against biological and chemical warfare agents, polymers, molecular structure, etc., and related programs. This facility is further utilized to support the application of chemicals to explosives, propellants, pyrotechnics, etc., and the effects of the chemistry of the ocean as it affects acoustic absorption, sound speed, thermocline and water mass identification.

310 15 MATERIALS LABORATORY (SF)

This facility is used for research, development, test and evaluation of static, pneumatic non-destructive as well as destructive testing of components and assemblies for Navy weapons, vehicles, engines, ships and aircraft. Includes testing such as Zyglo, ultra violet light, sonic, X-ray, magna-flux and other techniques for accomplishing non-destructive testing of metals, plastics, etc.

This facility also supports research in the areas of physical, mechanical, chemical and structural metallurgy directed towards marine corrosion, high temperature flow and fracture mechanics, irradiation effects on metals, fracture-safe design, etc., and in developing materials for use in transducers, underwater structures, sensing devices, weapons ships and

aircraft. Also supports the synthesizing, modifying, fabricating and studying of metallic and nonmetallic materials such as plastics, rubber, adhesives, ceramics, resins, etc., but excluding explosives and propellants, with emphasis on resistance to unusual conditions such as high and low temperatures, stresses, aerodynamic heating, etc.

310 17 OPTICS LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation programs in quantum optics, optical propagation, laser physics, optical materials and optical warfare. The facility is also used in efforts directed at discovering and understanding the basic physical principles and mechanisms involved in optical devices and phenomena.

310 19 PHYSICS LABORATORY (SF)

This facility is used in research, development, test and evaluation studies in the applied science of matter and energy. It includes research in such areas as acoustics, mechanics, light, thermodynamics, electromagnetism, atomic and nuclear physics, cryogenics, solid state physics, particle physics and plasma physics, etc.

310 21 RADIATION EFFECTS LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation on radiation characteristics of various devices and their effect on performance of various systems in the air and in the ocean environment. The facility is also used in the study of effects of radiation on people and marine life (e.g., acoustic pollution, hearing damage, radioactivity, etc.) and the accomplishment of studies to determine reliable methods for detecting radiation sources.

310 23 COMBINED RESEARCH LABORATORY (SF)

This facility is used for research, development, test and evaluation of naval systems which utilized several of the sciences in a combined system applied directly to a Fleet problem-or area of RDT&E. It is also used to support research, development, test and evaluation of naval systems which do not logically fit the other categories of RDT&E.

310 25 BIOLOGICAL LABORATORY (SF)

This facility is used in research, development, test and evaluation in terrestrial and marine biology as related to structure capabilities, functioning habitat, health, growth environmental indicators, ecological relationships, etc., of living organisms and association of biological phenomenon to man's existence and operations in the land, ocean and space environment. Includes research in microbiology and environmental biology and the life process or characteristic phenomena of any group.

310 27 ENVIRONMENTAL LABORATORY (SF)

This facility is used to support the research, development, test and evaluation of instrumentation and computer systems for measurement and analysis of the evaluation of environmental effects on various equipment, weapons systems, facilities, etc. The principle thrust of research and development in this area is in the fields of mechanical shock, vibration, pressure, and in the natural environments of temperature, humidity, corrosion, etc. Also includes working mock-ups of environmental studies relating man to the test environment.

310 29 ANIMAL APPLICATIONS LABORATORY (SF)

This facility is used to support the research, development, test and evaluation on non-human animals in pure research and ocean support applications. This would include the use of whales, dolphins, etc., as trained deep sea divers, seals for shallow water tool recovery, dogs as sentries, etc. Includes research and development in application and knowledge of animal capabilities in sensing, homing, identification, etc., to improve the operation of man-made ocean devices. Provides veterinary medical support for marine mammal projects including applied research on diagnosis, treatment, surgery, husbandry and nutrition.

310 31 MEDICAL LABORATORY (SF)

This facility is used in conducting research toward methodology for diagnosis, treatment, or prevention of disease or damage to the body or mind.

310 33 COMPUTATION AND ANALYSIS LABORATORY (SF)

This facility supports research, development, test and evaluation in the areas of information processing and data handling, especially when concerned with identification of conditions responsible for given data configurations. Mathematical data analysis utilizing both digital and analog computers to research, develop, test and evaluate new naval systems from simulated and real time data.

310 37 OCEAN SCIENCES LABORATORY (SF)

This facility is used to accomplish research, development, test and evaluation in marine biosystems, environmental protection and management, development of analytical systems for evaluation of the ocean environment, studies of wave dynamics, current flow, thermoclines, chemical variances, bottom sampling, as well as development of new techniques and equipment to increase man's knowledge and utilization of the total ocean environment.

311 AIRCRAFT

Buildings used directly in the research, development and testing of air frames and related assemblies and spares, and other aircraft equipment. Do not include aircraft or missile engines,

311 10 AIRCRAFT AND FLIGHT EQUIPMENT LABORATORY (SF)

This facility is utilized in conducting research, development, test and evaluation of aerodynamic design of aircraft and weapons systems to assure optimum flight performance, stability, and control characteristics and on airborne equipment. The facility is also used in conducting RDT&E in aerodynamic science in support of advanced aircraft and weapon concepts.

311 15 AIRCRAFT NAVIGATIONAL EQUIPMENT LABORATORY (SF)

This facility is used to support the research, development, testing and evaluation of aircraft navigation systems, and associated equipment. The facility is also an operating test facility for air navigation systems, equipment and component acceptance testing, design and performance analysis, and diagnostic and analytic evaluation to ensure proper system equipment and component function.

311 20 AIRCRAFT GROUND SUPPORT EQUIPMENT LABORATORY (SF)

This facility is used to research, development, test and evaluation of aircraft ground support equipment, systems and techniques for the takeoff, recovery, maintenance, and test of aircraft. The facility is used to test and evaluate ground support equipment for aircraft armament and weapons, aircraft handling, servicing and inspection equipment and aircraft avionics equipment. This does not include missile and missile system ground handling equipment.

311 25 AIRCRAFT SYSTEMS INTEGRATION LABORATORY (SF)

This facility is used for research, development, test and evaluation of various groupings and collections of interacting aircraft systems such as the effects of airframe, structure, flight control, electrical, environmental control, fuel, hydraulic, mechanical, pneumatic, propulsion, gun, life support and related ground support systems on ECM, air to air missile launch, etc. This does not include work on aircraft engine design characteristics.

312 MISSILE AND SPACE

Buildings used directly in the research, development and testing of missiles, missile system, related ground handling, and launching equipment, and other aerospace equipment.

312 10 GUIDED MISSILE LABORATORY (SF)

This facility is used in support of research, development, test and evaluation of advance simulation, instrumentation, environmental test techniques and improved serviceability and reliability characteristics of guided missile weapon systems. Includes assembly, disassembly, test modification and analysis of test firing results of guided missiles, as well as RDT&E in determining advanced missile systems.

312 15 MISSILE NAVIGATIONAL EQUIPMENT LABORATORY (SF)

This facility supports research, development, test and evaluation of missile navigation systems and related equipment. Includes design and testing of guidance and control systems for guided missiles and launch and arming systems for ballistic missiles. Includes component testing, error diagnosis, and performance analysis as applied to missiles and missile systems.

312 20 MISSILE SUPPORT EQUIPMENT LABORATORY (SF)

This facility is used for research, development, test and evaluation of equipment and techniques for the launching, recovery, maintenance, transport and testing of missiles and guided missile support equipment.

312 25 SPACECRAFT/SATELLITE LABORATORY (SF)

This facility supports research, development, test and evaluation of spacecraft, satellites or components of each not otherwise classified as a missile weapon system. This facility would include related ground support/launching equipment.

312 30 MISSILE SYSTEMS INTEGRATION LABORATORY (SF)

This facility is used for research, development, test and evaluation of related and interconnected systems that are necessary for launching, etc., and in direct support of guided missile systems.

313 SHIP AND MARINE EQUIPMENT

313 10 SHIP AND MARINE LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation on ships, by use of models in high and low speed tow tanks, maneuvering and seakeeping basins, water tunnels, circulating water channels, fluid phenomenon basins, etc. The facility is also used in conducting fundamental and applied research related to the efficiency of ship structures, other marine vessels, including tracked amphibious vehicles, and the development of methods to assist the effect of static and dynamic loads imposed by submergence depth, wave and submarine structures.

313 15 SHIPS AND MARINE NAVIGATIONAL EQUIPMENT LABORATORY (SF)

This facility is used to support the research, development, test and evaluation of ship and other marine vessel navigational systems and related equipment. The facility is also an operating test facility for ship and marine vessel navigation systems, equipment and component acceptance testing, design and performance analysis and diagnostic and analytic evaluation to ensure proper system equipment and component function.

313 20 SHIPS AND MARINE EQUIPMENT LABORATORY (SF)

This facility is used to conduct research, development, test and evaluation of ships and marine support requirement. This includes repair and maintenance equipment as well as equipment for direct support and operation of ships and marine vessels such as periscopes, towed arrays, etc. It is further utilized to support the study of methods for designing ship-board and other marine equipment for resistance to service loads, attacks, and combat reliability.

313 25 SHIPS AND MARINE SYSTEMS INTEGRATION LABORATORY (SF)

This facility is used for research, development, test and evaluation of related and interconnected ships and marine systems such as the ship platform integrated with the weapons systems, communication systems, command and control systems, surveillance systems, navigation systems, etc. The facility would include mock-up facilities for establishing adaptability, compatibility and space requirements for both man and machine.

314 TANK AND AUTOMOTIVE

314 10 GROUND TRANSPORTATION EQUIPMENT LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation in the field of automotive design as applied to tanks, APC's, and related military automotive equipment.

314 15 OTHER GROUND EQUIPMENT LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation in ground equipment in direct support of tank and automotive equipment such as power units, mobile maintenance, test equipment, heavy handling, lifting equipment, etc.

315 WEAPONS AND WEAPON SYSTEMS

RDT&E facilities for guided missiles and related items are included under category code 312.

315 10 AIRCRAFT WEAPON SYSTEMS LABORATORY (SF)

This facility supports the research, development, test and evaluation of aircraft weapon systems including projectiles, mines and bombs, and defensive countermeasures devices/weapons.

315 15 SHIP WEAPON SYSTEM LABORATORY (SF)

This facility is used for research, development, test and evaluation of weapons and weapon systems deployed from a surface ship. This would include guns, fire control, etc. This does not include aircraft or missile systems.

315 20 UNDERWATER WEAPON SYSTEM LABORATORY (SF)

This facility is used for research, development, test and evaluation of undersea weaponry such as mines and torpedoes. This would include submarine mounted guns but not submarine launched missiles.

315 25 GROUND WEAPON SYSTEMS LABORATORY (SF)

This facility is used for research, development, test and evaluation of weaponry in use on or deployed from a ground base platform and would include small arms, automatic weapons, mortars, artillery, flame throwers, etc.

315 30 WEAPON SYSTEMS INTEGRATION LABORATORY (SF)

This facility is used to accomplish research, development, test and evaluation associated with the integration of weapon systems with the weapons platform and with other interfaces between other weapons systems, guidance systems, surveillance systems, etc., as may impact upon the weapons performance.

316 AMMUNITION, EXPLOSIVES AND TOXICS

316 10 AMMUNITION, EXPLOSIVES AND TOXICS LABORATORY (SF)

This facility is used to support the research, development, test and evaluation of ammunition, rockets, bombs, mines, grenades, torpedoes, depth charges, demolition materials, pyrotechnics, AT0 units, related chemicals, etc., and their components and materials. Do not include facilities for guided missiles, guided bombs, or commercial type petroleum products.

317 ELECTRONIC, COMMUNICATION AND ELECTRICAL EQUIPMENT

Buildings used directly in the research, development and testing of radio and radar equipment, signal equipment, radiation aids, electrical equipment and its controls, transmitting and receiving equipment, avionics equipment, sonar, and guided bombs.

317 10 COMMUNICATIONS SYSTEMS LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation in the areas of radio communication, instrumentation, satellite communication, electromagnetic propagation, radio antennas, underwater sound systems, optical systems (infrared), etc.

317 15 DETECTION SYSTEMS LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation in basic physical phenomena of importance to radar, sonar, and related sensors, also the development of systems analysis and evaluation of the sensors used in satellites, ships, submarines, and aircraft, etc. Includes surveillance for detection, localization, identification and classification of surface, aerospace and sub-surface objects.

317 20 ELECTRICAL AND ELECTRONICS SYSTEMS LABORATORY (SF)

This facility is used in conducting research, development, test and evaluation in the areas of electrical power and its control, magnetic fields and ship's control systems. Research in this area involves development of motors and generators, frequency converters, voltage and current control devices, and shipboard power distribution systems. In the magnetic fields, studies are conducted in the reduction of stray fields produced by naval equipment, methods of determining ship's magnetic signature and new concepts in degaussing systems.

This facility is also used in the fields of electronics and electromagnetic phenomena in support of components, subsystems, and systems in detection, communication, navigation, countermeasures, acoustics, electromagnetics, identification, classification, etc., as they apply to naval ordnance, submarine weapons systems, surface ships and aircrafts.

317 25 ELECTRICAL, ELECTRONICS AND COMMUNICATION SYSTEMS INTEGRATION LABORATORY (SF)

This facility is used to accomplish research, development, test and evaluation associated with the integration of related systems and subsystems of electrical, electronics and communications systems with the platform (air, sea, ground, etc.) upon which they will operate and to verify interface consideration with other systems operating on the respective platform.

318 PROPULSION

318 10 PROPULSION SYSTEMS LABORATORY (SF)

This facility is used to support research, development, test and evaluation of propulsion systems in order to determine operational capabilities and in studying the acoustics and electromagnetic noise effects on performance and efficiency of drive units.

318 15 PROPULSION FUEL LABORATORY (SF)

This facility is used to support research, development, test, and evaluation of propulsion fuels in order to maximize a propulsion system's operational characteristics. This facility would also support investigation into new fuels and propulsive energy systems including controlled nuclear energy.

319 MISCELLANEOUS ITEMS AND EQUIPMENT

319 10 MISCELLANEOUS EQUIPMENT AND ITEMS LABORATORY (SF)

This facility supports research, development, test, and evaluation of miscellaneous military equipment such as clothing, landing mats, valves (e.g., safety, pressure reducing, fuel regulating, globe, gate, etc.) hyperbaric facilities not appropriate in another category code, etc.

319 15 RDT&E STORAGE LABORATORY (SF)

This building is a storage facility for research, development, test, and evaluation equipment and materials directly related to RDT&E programs.

319 20 CIVIL ENGINEERING LABORATORY (SF)

This facility is used to support research, development, test and evaluation in the area of civil engineering. This would include military type bridging, hand tools, construction equipment, construction techniques, etc., on land, in and under the ocean.

319 25 HUMAN FACTORS LABORATORY (SF)

This facility is used to determine the effects of wartime atmosphere and material on military personnel and non-combatants. This facility would also deal with man-man interfacing (morale, command control, and the like) and man-machine interfacing (console design, payload design, work area requirements, etc.)

319 30 SURVIVAL EQUIPMENT AND CLOTHING LABORATORY (SF)

This facility supports research, development, test and evaluation of pilot's and sailor's need for special equipment, clothing and techniques for survival in various hostile environments.

319 35 METROLOGY AND CALIBRATION LABORATORY

This facility will be used in direct support of research, development, test and evaluation programs where precise weights and measures are required in calibrating RDT&E equipment. This facility would include the metrology and calibration equipment and space for calibrating applicable equipment.

319 40 RANGE OPERATIONS AND INSTRUMENTATION LABORATORY (SF)

This facility is used in support of research, development, test and evaluation of range operations to include command center, communications, surveillance, instrumentation, data collection/reduction/display, etc.