# 2A2X1 – SPECIAL OPERATIONS FORCES/PERSONNEL RECOVERY (SOF/PR) INTEGRATED COMMUNICATION/NAVIGATION/MISSION SYSTEMS

**193rd Special Operations Wing** (Middletown) - This unit employs, maintains and supports EC-130J Commando Solo aircraft platforms equipped with airborne electronic broadcasting systems conducting psychological operations.

When it comes to special operations, there is no room for errors. Attention to detail and precision maintenance are required when working on integrated communications, navigations, and mission systems. You will work with a team of Avionic Specialists whose sole purpose is to ensure these systems respond to the needs of the aircrew.

Operates and maintains communication/navigation/mission systems on SOF/PR C-130 variants, HH-60s, EC-130 Commando Solo, EC-130 Compass Call, WC-130s and CV-22s. Additionally, operates and maintains instrument and flight control systems on CV-22s. Analyzes equipment operating characteristics to isolate malfunctions in avionics systems, radar, integrated test systems built-in-test (BIT), multiplexed data bus systems, personnel locator systems, recording systems, fire control systems, video display systems, flight instruments, mission computer systems, electro-optical viewing systems (EVS), inertial navigation systems (INS), global positioning system, primary and secondary flight controls (CV-22), automatic flight control (CV-22), engine instrumentation (CV-22), fuel management systems (CV-22), central air data systems (CV-22), sensors, communication, and navigation systems, transponders, aircraft indicating systems, meteorological systems, situational awareness systems, laser designators, and interrogator systems. Removes, installs, checks, and repairs avionics systems and line replaceable units (LRU). Diagnoses malfunctions using technical orders, schematics, wiring diagrams, integrated test systems and other test equipment.

**Civilian Related Skills:** Blueprints/Technical Diagrams, Electrical Code Specifications/Standards, Electrical Component/Equipment Installation, Electrical System Testing/Measurement

**Tech School:** Avionics Fundamentals Course, Sheppard AFB, Texas, 39 Days SOF/PR Integrat. Comm/Nav/Msn Sys, C-130/HH-60/EC-130/WC-130, Sheppard AFB, 82 Days A Shred - SOF/PR Integrated Comm/Nav/Mission Sys, CV-22, Sheppard AFB, 74 Days

MEST Days: 120 Requirements: -ASVAB = E - 70 -P3 U3 L3 H1 E3 S1

#### 2A7X1 – AIRCRAFT METALS TECHNOLOGY

**193rd Special Operations Wing** (Middletown) - This unit employs, maintains and supports EC-130J Commando Solo aircraft platforms equipped with airborne electronic broadcasting systems conducting psychological operations.

**201st Red Horse Squadron** (Fort Indiantown Gap) - This unit directly supports combat airpower resources by providing a flexible, comprehensive light to heavy construction and repair capability.

Every plane and helicopter in the Air National Guard fleet is made of metal, which makes the Aircraft Metals Technology Specialist an important member of the Air Guard team. These expert technicians must have the precise and steady hand of a surgeon while using an arc welder. They can make just about anything an aircraft could need from metal, and it's their job to design, weld, heat treat, fabricate, and use precision tools, components, and assemblies for aerospace weapon systems. If you're looking for an Air Guard career that will also give you the skills you need for a successful civilian career, Aircraft Metals Technology is the field for you.

Designs, welds, heat treats, fabricates, and machines precision tools, components, and assemblies for aerospace weapon systems and related support equipment.

Advises on metals machining, welding, designing, and production problems. Designs, manufactures, or modifies special precision tools, gauges, dies, and fixtures to facilitate metal working operations. Performs metals technology shop calculations such as determining cutting speeds and settings, welding processes, and preheat and post heat requirements. Welds, brazes, solders, and heat treats metals. Uses manual and computer numerical controlled (CNC) metal working machines, mills, and lathes to manufacture and repair cams, gears, slots, and keyways for aircraft components and SE. Writes programs for CNC machines using manual and Computer Aided Design-Computer Aided Manufacturing (CAD-CAM) methods.

**Civilian Related Skills:** Blueprints/Technical Diagrams, Metal Cutting Techniques, Metal Forming Techniques, Metal Joining Techniques

**Tech School:** Aircraft Metals Technology Apprentice, Sheppard AFB, Texas, 68 Days

MEST Days: 120
Requirements:
-ASVAB = M 47
-P3 U3 L3 H1 E3 S2

# 2T3X1 - SPECIAL PURPOSE VEHICLE AND EQUIPMENT MAINTENANCE APPRENTICE

**193rd Special Operations Wing** (Middletown) - This unit employs, maintains and supports EC-130J Commando Solo aircraft platforms equipped with airborne electronic broadcasting systems conducting psychological operations.

**201st Red Horse Squadron** (Fort Indiantown Gap) - This unit directly supports combat airpower resources by providing a flexible, comprehensive light to heavy construction and repair capability.

If you think you like tinkering around in the car shop, imagine how much you'll love working on the vehicles that the Air National Guard maintains and operates. As a Mission Generation Vehicular Equipment Maintenance Specialist, you'll inspect, troubleshoot, and repair a variety of vehicles such as dump trucks, bucket loaders, fork lifts, and even firefighting and refueling equipment. When disaster strikes or an enemy attacks, it's your job to make sure the Air Guard vehicles are maintained and ready to go.

Performs vehicle maintenance activities on military and commercial design general and special purpose, base maintenance, aircraft and equipment towing vehicles, and vehicular equipment. Activities include inspection, diagnostics, repair, rebuild of components and assemblies, weld metals and repair vehicle glass. Determines the overall mechanical condition of vehicles and equipment, diagnoses component malfunction and initiates repair actions. Systematically analyzes malfunctions by visual and auditory examination or through the use of test equipment.

**Civilian Related Skills:** Automotive Environmental and Safety Regulations, Automotive/Mobile Equipment Preventative Maintenance, Electrical Component/Equipment Installation

Tech School: Mission Generation Vehicular Equipment Maintenance School, Port Hueneme,

Calif., 75 Days
MEST Days: 90
Requirements:
-ASVAB = M 47
-P3 U3 L3 H2 E3 S3

#### **3D1X3 - RADIO FREQUENCY TRANSMISSIONS SYSTEMS**

**193rd Special Operations Wing** (Middletown) - This unit employs, maintains and supports EC-130J Commando Solo aircraft platforms equipped with airborne electronic broadcasting systems conducting psychological operations.

**211th Engineering Installation Squadron** (Fort Indiantown Gap) - This unit designs, installs, and relocates fixed command, control, communication and computer systems facilities encompassing a broad variety of telecommunication network systems.

**271st Combat Communications Squadron** (Fort Indiantown Gap) - This unit deploys, operates and maintains mobile command and control radio nets, internal telephone services and microwave and satellite transmission circuits.

**201st Red Horse Squadron** (Fort Indiantown Gap) - This unit directly supports combat airpower resources by providing a flexible, comprehensive light to heavy construction and repair capability.

As a 3D1X3/Radio Frequency Transmissions Systems Apprentice you will deploy, sustain, troubleshoot and repair standard radio frequency wireless, line-of-sight, beyond line-of-sight, wideband, and ground-based satellite and encryption transmission devices in a fixed and deployed environment. Included are multiple waveform systems operating across the spectrum, keying and signal devices; telemetry, and instrumentation systems. Establishes and maintains circuits, configures and manages system and network connectivity. You will also perform/supervise and wireless radio and satellite systems and equipment maintenance activities. Oversee work in progress and review completed repairs for sound maintenance practices. Establish requirements for maintenance equipment, support equipment, tools, and spare parts.

**Civilian Related Skills:** Blueprints/Technical Diagrams, Electrical Component/Equipment Installation, Electronic Device/System Installation/Repair, Electronic Equipment Calibration,

**Tech School:** Kessler AFB, Miss., 123 Days

MEST Days: 60
Requirements:
-ASVAB = E 70
-P3 U3 L3 H2 E3 S3

#### 3D1X7 - COMMUNICATIONS CABLE AND ANTENNA SYSTEMS APPRENTICE

**211th Engineering Installation Squadron** (Fort Indiantown Gap, Annville) - This unit designs, installs, and relocates fixed command, control, communication and computer systems facilities encompassing a broad variety of telecommunication network systems.

Maintaining a secure chain of communication from one base to another is vital to the operations of the Air National Guard. During a natural disaster or on a war-time mission, there's no time to waste with communications systems that are anything less than perfect. Cable and Antenna Systems Specialists ensure that these connections are clear, unbroken, and secure at all times, all over the world. In this job, you'll provide command and control capabilities with fixed cable and wireless distribution systems, local area networks, and wide area networks in support of tactical and strategic operations.

Installs, maintains, reconstitutes, removes, and modifies copper core, coaxial, waveguide, and fiber optic cable and antenna systems. Climbs antenna support structures and wooden poles to various heights for maintenance and installation actions on cable and antenna systems. Installs and maintains dedicated local area network (LAN) and wide area network (WAN) media distribution systems, including distribution system interior wiring. Uses drawings, task lists, instructions, and technical data to work on copper core, coaxial, waveguide, fiber optic cable and antenna systems. Installs distribution equipment. Terminates copper core and fiber optic cables on main distribution frames and interface equipment. Operates and performs maintenance using tools, test equipment, auxiliary equipment, and vehicles such as backhoes, trenchers, cable trailers, cable reel trucks, and antenna construction vehicles.

**Civilian Related Skills:** Electrical Code Specifications/Standards, Electrical Component/Equipment Installation, Electrical System Testing/Measurement, Electronic Device/System Installation/Repair

**Tech School:** Communications Cable and Antenna Systems Apprentice, Sheppard AFB, Texas, 67

Days

**MEST Days:** 45 **Requirements:** 

-ASVAB = M 55 OR E 55

-P3 U3 L1 H2 E3 S1

#### **3E0X2 – ELECTRICAL POWER PRODUCTION**

**201st Red Horse Squadron** (Fort Indiantown Gap) - This unit directly supports combat airpower resources by providing a flexible, comprehensive light to heavy construction and repair capability.

**271st Combat Communications Squadron** (Fort Indiantown Gap) - This unit deploys, operates and maintains mobile command and control radio nets, internal telephone services and microwave and satellite transmission circuits.

Whether it's at your local Air Guard unit or in a temporary disaster relief facility, electricity is vital to Air Guard operations. As an Electrical Power Production Specialist, it'll be your job to get it there and to keep the power supply fully functional. You'll undergo extensive training and become a highly skilled expert in your field, having received training that directly transfers into the civilian world and can be used to start a career as an electrician outside of the Air Guard.

Installs, removes, and operates electrical power generating and control systems, automatic transfer switches, aircraft arresting systems, and associated equipment. Checks equipment for serviceability. Positions equipment such as gasoline and diesel engines, generators, switchgears, air compressors, and other power generating auxiliary equipment. Installs, positions, rewinds, and pretensions aircraft arresting systems. Certifies aircraft arresting systems as required. Checks installed equipment to ensure compliance with publications, policies, and directives. Inspects, tests, and services component systems such as safety, fuel, lubrication, cooling, air pressure, pumps, regulators, governors, and accessory equipment. Observes and interprets instruments such as ammeters, voltmeters, frequency meters, synchroscopes, automatic temperature and pressure recorders, and engine oil, fuel, and coolant gauges. Adjusts engine generator systems to maintain proper voltage, current frequency, and synchronization.

**Civilian Related Skills:** Electrical Code Specifications/Standards, Electrical Component & Equipment Installation, Electrical System Testing/Measurement, Electronic Device/System Installation/Repair

**Tech School:** Electrical Power Production Apprentice, Sheppard AFB, Texas, 50 Days

**MEST Days:** 42 **Requirements:** 

-ASVAB = M 56 OR E 40

-P3 U3 L3 H2 E2 S3

### **3E2X1- PAVEMENTS AND CONSTRUCTION EQUIPMENT**

**201st Red Horse Squadron** (Fort Indiantown Gap) - This unit directly supports combat airpower resources by providing a flexible, comprehensive light to heavy construction and repair capability

As a Pavement and Construction Equipment Specialist, you'll maintain and operate heavy construction equipment to support the mission by constructing and maintaining concrete and asphalt runways, aircraft parking aprons, and roads. The special projects you work on could be anything from building an entire air base, to constructing emergency disaster relief facilities, to erecting high-tech security fences. Pavement and Construction Equipment Specialists literally build Air National Guard facilities from the ground up, all over the country and abroad.

Constructs and maintains concrete and asphalt runways, aircraft parking aprons, and roads. Operates and maintains heavy construction equipment, such as loaders, graders, dozers, backhoes, and dump trucks. Operates tractor-trailer combinations, transporting construction equipment, and materials. Ensures compliance with all safety and environmental regulations. Plans, constructs, and repairs airfield pavements, roads, streets, curbs, surface mats, membranes, and other improved areas using paving and surfacing procedures. Takes soil, aggregate, asphalt, and concrete samples for laboratory tests. Interprets construction drawings and surveys using information such as subgrade contours and grade alignment. Inspects pavements for surface, base, and sub-base damage or defects. Repairs damaged or defective areas by removing and replacing joint and crack sealant, surface overlays, and seal coats. Determines material and equipment requirements and prepares cost estimates for construction activities. Provides erosion control.

**Civilian Related Skills:** Blueprints/Technical Diagrams, Cement/Asphalt Working, Ground Construction, Industrial Equipment Operation, Project/Program Management

Tech School: Pavements & Construction Equipment, Fort Leonard Wood, Mo., 40 Days

MEST Days: 49
Requirements:
-ASVAB = M 40
-P2 U2 L2 H2 E2 S1

### **3E3X1- STRUCTURES**

**201st Red Horse Squadron** (Fort Indiantown Gap) - This unit directly supports combat airpower resources by providing a flexible, comprehensive light to heavy construction and repair capability.

Structural Specialists are dedicated to erecting strong frameworks for any kind of building an Air National Guard unit may need – from an improvised emergency disaster relief shelter to a formal Air Guard unit facility. As a Structural Specialist, you'll be trained to use specialized materials, tools and equipment, and you'll gain knowledge that will easily transfer into a civilian career in the construction field.

Manages, constructs, repairs, and modifies structural systems and wooden, masonry, metal, and concrete buildings. Fabricates and repairs components of buildings, utility systems, and real property equipment. Ensures compliance with environmental regulations.

Prepares and interprets working drawings and schematics for maintaining, altering, and

Prepares and interprets working drawings and schematics for maintaining, altering, and repairing buildings and structures. Surveys proposed work sites to determine material and labor requirements. Prepares cost estimates. Reviews structural work progress and coordinates changes in schedules. Constructs and repairs footings, floors, slabs, foundations, walls, roofs, steps, doors, and windows for prefabricated and permanent structures. Constructs and modifies buildings. Prepares, applies, and finishes mortar, concrete, plaster, and stucco. Fabricates repairs, and installs metal parts and assemblies for utility systems and buildings.

**Civilian Related Skills:** Blueprints/Technical Diagrams, Building Construction, Contract Administration, Ground Construction, Message Traffic Analysis, Metal Joining Techniques

Tech School: Gulfport, Miss., 54 days

MEST Days: 35 Requirements: -ASVAB = M 47 -P3 U3 L3 H2 E3 S3

# 3M0X1/3F1X1 - SERVICES

**193d Special Operations Wing** (Middletown) - This unit employs, maintains and supports EC-130J Commando Solo aircraft platforms equipped with airborne electronic broadcasting systems conducting psychological operations.

Think you can't start a culinary career in the Air National Guard? Think again. Services Specialists maintain and operate hotels, restaurants, and fitness centers at military bases worldwide. You can live your dream of being a chef at a specialty restaurant. You can learn the ins and outs of the hospitality business with one of the many hotels the Air Guard helps maintain around the world. You can even become a trainer at a gym, helping Airmen maintain peak levels of physical fitness. The Air Guard offers virtually any career found in the civilian world, and it's a fantastic place to gain experience and knowledge that will serve your civilian career as well.

Manages Force Support operations. Improves work methods and procedures to ensure economic operation and customer satisfaction. Executes customer service and support programs Resolves customer complaints. Requisitions and accounts for subsistence, supplies, and equipment needed to support Services specific and Force Support programs. Identifies facility requirements and conducts surveys to determine facility renovation, construction, and modernization needs. Maintains close liaison with commanders and unit fitness managers on the Air Force Fitness Program. Conducts personal fitness training and develops individual and group exercise regimens. Performs recreation programming. Maintains unit readiness program. Establishes and supervises bare base facilities that provide food, fitness, lodging, sports management, recreation, laundry, mortuary services, field resale operations, and protocol support to deployed personnel.

**Civilian Related Skills:** Inventory Management and Distribution, Logistics Support, Property/Facility Management, Recreation Programs, Data Entry, Exercise Programs

**Tech School:** Services Apprentice Course, Fort Lee, Va., 28 Days

MEST Days: 30 Requirements: -ASVAB = G 24 -P3 U3 L3 H3 E3 S3

## 1C8X3- RADAR, AIRFIELD & WEATHER SYSTEMS

**193d Special Operations Wing** (Middletown) - This unit employs, maintains and supports EC-130J Commando Solo aircraft platforms equipped with airborne electronic broadcasting systems conducting psychological operations.

As a Ground Radar Systems Specialist, you'll be in charge of the sophisticated systems that help safely manage air traffic. You'll install, maintain, and repair fixed or mobile air traffic control, weather, ground aircraft control and warning radar systems, related radar operator training devices, aircraft identification equipment, removing systems, video mappers, computerized processors, and communications subsystems. Being a Ground Radar Systems Specialist is a demanding but exciting job that requires high-level skills and continual training as new technology becomes available.

Installs, removes, and relocates RAWS. Assembles, connects, modifies, and adjusts electronic subassemblies such as antennas, transmitters, receivers, processors, indicator groups, and ancillary systems such as voice recorders, weather sensors, voice switches, solar observatories, and space weather systems. Studies system characteristics, local terrain, and planned base facilities and requirements. Conducts tests of installed equipment for proper component assembly and compliance with technical orders. Determines equipment position based on plans, diagrams and specifications. Checks and inventories equipment and project materials for serviceability. Assembles, connects and wires components, assemblies and antenna systems. Performs operational tests, and adjusts and aligns equipment. Places in operation, calibrates, tunes, and aligns subassemblies according to approved technical data to maximize performance. Completes flight inspections. Disassembles, relocates, assembles, and connects all decommissioned RAWS.

**Civilian Related Skills:** Classified Information and Materials Security, Communication System Design, Data Management, Electrical System Testing/Measurement, Electronic Data Security

**Tech School:** Information Technology Fundamentals/Electronics, Keesler AFB, Miss., 38 days Ground Radar Systems Apprentice Course, Keesler, AFB, Miss., 86 Days

**MEST Days:** 75 **Requirements:** -ASVAB = E 70

-P3 U3 L3 H2 E3 S2

-Color Vision: Yes

\*Additional initial qualification training and mission qualification may apply (see AFECD)