

**586<sup>th</sup> Flight Test Squadron Radio Mobile Command Trailer  
Requirements Document**

**For  
704th Test Group/586th Test Squadron**

**07 March 2023**

**1.0 PURPOSE**

The 704th Test Group (704 TG) mission is to be the premier provider of unique test and evaluation capabilities relevant to tomorrow’s warfighter through world-class people improving technical excellence, cost-effectiveness, and agility. The 586th Flight Test Squadron (586 FLTS) is assigned to the 704 TG. The 586 FLTS conduct and enable agile weapons, avionics, and survivability testing for the joint warfighter. The 586 FLTS accelerate good ideas and make sure that effective systems and technology get to the battlefield and quickly as possible. The 586 FLTS requires a enclosed 8.5’ x 20’ towable test trailer to act as a mobile command and control center to support the MPU5 Wave Relay mobile multi-node meshed ad hoc wireless network between a ground station and aircraft platforms. This enclosed test trailer must be equipped with specific features to support 6-8 test personnel and customers, control/monitor the radio network as well as test customer equipment (i.e. antennas, rack mounted devices, laptops, etc.) and provide a comfortable workstation for deployed events in various environments. These specialized features include upgrades to trailer’s frame, upgrade to standard box dimensions as well as components around enclosure, tandem 5,200 lb axles, custom interior, a mobile mounted generator to provide power throughout the trailer, sufficient power and hardware for test equipment as well as proper lighting, heating & cooling, and miscellaneous equipment/furnishings.

**2.0 SCOPE**

The Contractor shall deliver the equipment and meet the following requirements:

Required Equipment	Description
Frame	<ul style="list-style-type: none"><li>• Undercoat or finish to prevent rusting of underframe</li><li>• “Bump” rollers heavy duty – mounted under rear trailer frame</li><li>• Hitch type: Adjustable height ball 2 - 5/16” Coupler</li><li>• 7 way round plug, flat pins</li><li>• Aluminum fenders</li><li>• Include 2 spare tires<ul style="list-style-type: none"><li>○ Spare tire mounts</li></ul></li><li>• 5,000 lb minimum electric jacks</li><li>• Electric side leveling jacks (one pair)</li><li>• Stabilizing jacks (Qty 2) 5,000 lbs minimum</li><li>• Mobile jacks w/holders for the trailer to hold a min of 5,000 lbs</li><li>• No show beaver tail</li><li>• Safety chains</li></ul>

Box	<ul style="list-style-type: none"> <li>• Enclosed trailer to be 8.5' W x 20' L</li> <li>• Insulated reinforced panels seamless walls with trim</li> <li>• Structural I beam and channel aluminum trailer frame</li> <li>• Insulated reinforced panels walls, 1" foam</li> <li>• Once-piece roof</li> <li>• Thermocooled lining for ceiling</li> <li>• Powered roof vent (remote controlled)</li> <li>• Extra height for equipment clearance <ul style="list-style-type: none"> <li>○ Threshold: 7' height clearance (Required double spring and Torsion assist &amp; ramp opening 80")</li> <li>○ Objective: 8.6' height clearance (Required double spring and Torsion assist &amp; 7,000 lb super duty ramp with 96" opening)</li> </ul> </li> <li>• 7,000 lb super duty ramp and flap <ul style="list-style-type: none"> <li>○ Double spring assist on ramp</li> <li>○ Interior non-slip flooring on ramp and flap</li> </ul> </li> <li>• 36" RV stile door with lock <ul style="list-style-type: none"> <li>○ RV style pull-out sidestep</li> </ul> </li> <li>• Grab handle folding rail for side entrance</li> <li>• Egress windows (Qty 2) one on each side of trailer (i.e. left and right side)</li> <li>• Tie downs - wall and floor tracks</li> <li>• Side Mounted 12V electric operation Awning</li> <li>• Removeable and reconfigurable adapter for roof to allow mounting of various antennas <ul style="list-style-type: none"> <li>○ Reconfigurable adapter to act as antenna farm</li> <li>○ Roof must have inlet/outlet between adapter and trailer skin to allow cable runs to go from antennas into the trailer's equipment rack</li> <li>○ Adapter must be able to withstand 300 lbs of antenna equipment load</li> </ul> </li> </ul>
Axle	<ul style="list-style-type: none"> <li>• Tandem</li> <li>• 2 – 5200lbs torsion</li> <li>• Electric brakes both axles</li> </ul>
Interior	<ul style="list-style-type: none"> <li>• Smooth finishes on ceiling &amp; walls</li> <li>• Ceiling &amp; wall insulation</li> <li>• Fabric covered ceiling with insulation</li> <li>• Cabinets (front)</li> <li>• Overhead cabinets w. Writeable surface and self-latching doors</li> <li>• 24" deep countertop w/legs</li> <li>• Periodic upper cabinet dividers</li> <li>• Flooring: Rubber Tread Plate (RTP) or similar</li> <li>• Under floor spray foam insulation, R/1</li> <li>• Bubble levels mounted for forward/aft and side-to-side leveling</li> </ul>
Generator	<ul style="list-style-type: none"> <li>• On-board diesel generator to power all electrical requirements <ul style="list-style-type: none"> <li>○ Remote switch panel</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ 30 gal in-frame tank with remote gauge</li> <li>○ Auto transfer switch</li> <li>• Generator mounted in easy-to-access compartment on the opposite side of the trailer entrance door for battery and generator storage <ul style="list-style-type: none"> <li>○ Heavy duty access door</li> <li>○ Door to be aluminum cast fill</li> <li>○ Rapid fuel filler</li> </ul> </li> <li>• Aluminum enclosed storage for Fuel tanks <ul style="list-style-type: none"> <li>○ Fuel cans with spout</li> <li>○ Aluminum sheet with front removable door</li> </ul> </li> </ul>
<p style="text-align: center;">Electrical</p>	<ul style="list-style-type: none"> <li>• 110 Volt Electrical Package <ul style="list-style-type: none"> <li>○ Department of Transportation (DOT) compliant lighting</li> <li>○ All connections heat shrink solder</li> <li>○ Breakaway connected to group 27 deep cycle battery</li> </ul> </li> <li>• 12V LED dome lights hi/lo intensity <ul style="list-style-type: none"> <li>○ 120V Exterior Scene Lights <ul style="list-style-type: none"> <li>▪ (Qty 2) Entry side</li> <li>▪ (Qty 1) On opposite side of entry side</li> <li>▪ (Qty 1) Forward end of trailer</li> <li>▪ (Qty 1) Aft end of trailer</li> </ul> </li> </ul> </li> <li>• 12 V LED door light</li> <li>• 12V Wall Switch</li> <li>• 12 V Power System <ul style="list-style-type: none"> <li>○ 12V 60 AMP converter</li> <li>○ (Qty 2) Group 27 deep cycle batteries</li> </ul> </li> <li>• Solar battery maintainer 15 Watt <ul style="list-style-type: none"> <li>○ 7 amp charge controller/regulator</li> </ul> </li> <li>• 12 V master switch for 12V power system</li> <li>• 220V/110V/12V 100 AMP entrance/distribution panel</li> <li>• 50 amp 120-240V shore power w/ 25' shore cord and exterior power receptacle</li> <li>• 110 V GFCI protected duplex power outlets</li> <li>• HDMI and 110v outlet in ceiling about 8' from rear wall</li> <li>• Cable raceways <ul style="list-style-type: none"> <li>○ Full perimeter</li> <li>○ 2 channel hi-lo voltage</li> </ul> </li> <li>• Interior recessed LED lights to light internal workstations in trailer</li> <li>• Extra pair LED dual tail lights (Qty 1)</li> <li>• Pair side turn blinker LED lights (Qty 1)</li> <li>• Pair LED back up lights (Qty 1)</li> <li>• Heating &amp; Cooling temperature control thermostat (Qty 1) <ul style="list-style-type: none"> <li>○ Wall mounted</li> <li>○ Install blocking in ceiling between Heating &amp; Cooling Units for antenna farm or large antennas</li> </ul> </li> <li>• Power inverter compatible to take Generator power levels (Qty 1)</li> </ul>
<p style="text-align: center;">Heating &amp; Cooling</p>	<ul style="list-style-type: none"> <li>• 15,000 BTU heating and cooling system</li> </ul>

<p>Miscellaneous Equipment &amp; Furnishings</p>	<ul style="list-style-type: none"> <li>• 6-8 workstations W/task chairs <ul style="list-style-type: none"> <li>○ Task chairs must be secured via strapping system – no bungee cord</li> </ul> </li> <li>• Per workstation outlet configuration: <ul style="list-style-type: none"> <li>○ One duplex – 110V</li> <li>○ (Qty 1) 12V</li> <li>○ (Qty 2) Cat 6 run to equipment rack</li> </ul> </li> <li>• Secondary portable generator</li> <li>• 19” standard equipment rack <ul style="list-style-type: none"> <li>○ Front mesh door</li> <li>○ 500 cfm vent fan</li> <li>○ 16 outlet strip</li> <li>○ Removable sides</li> <li>○ Rubber feet for shock mount</li> </ul> </li> <li>• Access door, right behind equipment rack, top hinge, to allow passthrough large cable builds <ul style="list-style-type: none"> <li>○ Approximately no less than 2' from floor</li> </ul> </li> <li>• Television Mount at front wall space</li> <li>• Largest size L.E.D non Smart Television W/HDMI input to fit front wall space <ul style="list-style-type: none"> <li>○ Master switch connected to all workstation docking stations to front wall mounted Television.</li> </ul> </li> <li>• Two computer monitors above each workstation (24” minimum) <ul style="list-style-type: none"> <li>○ Must be equipped with docking stations for laptops to connect to monitors</li> <li>○ Monitor mounts for each monitor</li> </ul> </li> <li>• Galley Equipped with the following: <ul style="list-style-type: none"> <li>○ Microwave</li> <li>○ Mini-fridge</li> <li>○ Storage</li> </ul> </li> </ul>
<p>Total Gross Weight with all add-on equipment</p>	<ul style="list-style-type: none"> <li>• Weight of trailer and all add-ons above to not exceed 10,000 lbs.</li> </ul>

### 3.0 MILESTONES

The contractor shall deliver the equipment no later than 16 months After Receipt of Order (ARO).

### 4.0 DELIVERABLES

The contractor shall deliver all hardware and documentation to 586th Flight Test Squadron.  
Attn: Gerardo “Jerry” Sanchez at 961 DeZonia Road, building 1074, Holloman Air Force Base, New Mexico 88330 575-572-4075.