

## About CommInnovations

---

CommInnovations was incorporated in November 1994 with objective is to provide customized communication equipment and solutions to our customers in the aviation market.

The target customer base was helicopter operators in law enforcement, border patrol, firefighting



& emergency medical communities. Our first product was switch & cable assemblies, introduced

in 1995. The switch and cables are used interface the aircrewman's headset with the aircraft intercom & radios. A typical unit has a slide switch to key the intercom, a PTT to key aircraft radios & a volume control

. The cable to the aircraft can be coil or straight & length as specified by the customer. The product featured ergonomically designed switch case & the enhanced ruggedness by using over-molded strain reliefs at the known weak points of previous designs. These improved features of switch and cables were readily received in the targeted markets & today the company enjoys the lead market position in the US & has a significant share of the global market for this product. CommInnovations has two domestic distributors, one in Europe & one in the Asia Pacific Rim.

CommInnovations also has a network of OEM's (Original equipment Manufacturers) & dealers worldwide. This lead position has not deterred the company from improving the product. The design has been modularized using components terminated in miniature connections. This improvement permits the user to make solderless repairs & reconfigurations. Reconfigurations are common in the industry. When a helicopter operator leases his aircraft one year to the US Forest but the next year the same aircraft may be used in law enforcement or EMS where the



user has different mission requirements. CommInnovations has also adapted its products for use

with active noise reduction (ANR) headsets common in aviation today.

CommInnovations has developed a reputation as problem solvers, which has led to an expansion of its line of aviation communications products to include devices such as adapter cables, impedance adapters & interfaces cell phone and portable radios. Impedance adapters permit the use of headsets designed for use with one type intercom system to be used with an otherwise non-compatible intercom system. This is common since civilian & military intercom systems are built using different standards. The connectors used in commercial aircraft, general aviation & helicopters are all different from one another. US & European standards for military intercom systems are also different from one another.

All of the products are assembled and tested on-site, with outsourced sub-assemblies and

components selected from potential vendors for quality, economy and customer service. Fast turn around times has been a key to CommInnovations' success & so vendors are chosen that can respond quickly. Local vendors are always used where possible. The parts being produced in



short run, small quantity and customized for customer specific applications.

CommInnovations did not start out with the intention of being a supplier to the military. But military applications have become a large part of our annual sales. In 1996, E-Systems was under contact to the US Army to develop a seating & multi-place intercom system for the UH-60 Black Hawk that could be installed when passengers were being transported & easily removed afterwards. The UH-60 Black Hawk is a four-bladed, twin-engine, medium-lift utility helicopter manufactured by Sikorsky. E-Systems had selected an intercom that met the US Army's requirements but it was civilian impedance & was not compatible with the army's aviation headsets & helmets. E-Systems requested that CommInnovations integrate our impedance matching technology into a switch and cable. This system is currently in wide use in the US Army especially in Iraq & Afghanistan.

The Lockheed Martin C-130J "Super" Hercules is a four-engine turboprop military transport aircraft. The C-130J is a comprehensive update of the venerable Lockheed C-130 Hercules, with new engines, flight deck, and other systems. When the RAF purchased the C-130J they wanted a single cable that was compatible with three different style headsets all using different connectors & build standards. In 1997, Lockheed Martin contracted CommInnovations to develop special



cable assembly to meet these multiple uses. Because of the high EMI (electromagnetic interference), rigorous requirements were imposed by the RAF. Due to CommInnovations' success in developing this cable, additional requirements for cables to be used with emergency oxygen masks & an interconnect station for use ground crew personnel were added to the contract.

The success of the cables built for the RAF C-130J has led to additional business. The Alenia (Italian aircraft manufacturer) C-27J Spartan is a medium-sized military transport aircraft. The C-27J has also been ordered by the militaries of Italy, Greece, Bulgaria, Lithuania, Mexico, Morocco, and Romania as well as the US military. Italy received its first C-27J in October 2006. The Italian Air Force deployed two C-27Js to Afghanistan from 12 September 2008 to 27 January 2009 in support of NATO airlift operations.

The U.S. Air Force performed the C-27J's first combat deployment in Summer 2011.[28] In

August 2011, two C-27Js flown by Air National Guard aircrews, augmented with Army

National Guard personnel, began operations at Kandahar Air Field, Afghanistan.

On 26 January 2012, the Department of Defense announced plans to retire all 38 USAF C-27Js.

U.S. Special Operations Command (SOCOM) acquired seven of the C-27Js to replace its CASA

212 training aircraft and the 14 remaining C-27Js were transferred to the Coast Guard with the



first HC-27J delivered in Coast Guard colors in April 2016. CommInnovations is currently

providing cables to support these aircraft.

60 helicopter, This system allows direct communications between the battle field commander

When the US Army developed a satellite command & control communications system for UH-

with Centcom (Central Commnd) in the Tampa. CommInnovations was selected to provide the

cable assemblies. The previously developed cable for use in high EMI environments proved

equally applicable in this application. The US Army was kind enough to give us a picture of then

presidential candidate Barrack Obama & General Petraeus using our equipment on a flight over Iraq.

CommInnovations is supplying switch & cable assemblies for the U.K. airborne ASW role in its

AgustaWestland Merlin helicopter fleet, which is currently undergone a major upgrade and the

AW159 Lynx Wildcat (an improved version of the Super Lynx) military helicopter serving in

the battlefield utility, search and rescue and anti-surface warfare roles.

The Sikorsky CH-53K King Stallion is a large, heavy-lift cargo helicopter currently being

developed by Sikorsky Aircraft for the United States Marine Corps (USMC). It will be the

largest and heaviest helicopter in the U.S. military. The CH-53K is a general redesign of the CH-



53E. The USMC plans to receive 200 helicopters at a total cost of \$25 billion.

Sikorsky's specification for the cable used in the CH-53K are extremely rigorous. The heavy

duty cable uses a proprietary dual shielding to insure very low susceptibility to EMI

(electromagnet interference) and very high TEMPEST capability to shield the cable against

spying. CommInnovations provided cables used in pre-production testing in the fall of 2016. The

CH-57K was approved for production in April 2017.

The Bell V-280 Valor is a third-generation tilt-rotor aircraft being developed by Bell Helicopter

and Lockheed Martin[1] for the United States Army's Future Vertical Lift (FVL) program.

CommInnovations has provided cables to Bell to support ongoing flight tests.

RELM Wireless Corporation has totaling approximately \$1.5 million dollars from the U.S.

Forest Service (USFS) for RELM's KNG-Series Digital P-25 portable and mobile radios.

CommInnovations has been selected to provide the flight helmet interfaces for these radios.

When CommInnovations first began operations it operated out of a desk at Astrocom Electronics in Colliersville using a borrowed laptop computer. All manufacturing was subcontracted to Astrocom. As the business grew, CommInnovations eventually leased space from Astrocom & hired its own office & assembly workers. But by 2002 CommInnovations needed more space & Astrocom was expanding its operations. so it was mutually agreed that CommInnovations should move.



CommInnovations is now located on Pony Farm Road in Oneonta. The company occupies 10,000 sq ft & operates four business units. In addition to aviation communications manufacturing, CommInnovations also operates the Village Printer, Oneonta UHaul & American Storage Systems.