
TELEPHONICS
CELEBRATING
80
YEARS
OF INNOVATION
TELEPHONICS®
A Griffon Company
A VISUAL HISTORY

CELEBRATING 80 YEARS 1933 – 2013

TELEPHONICS® A Griffon Company

1933

The BEGINNING of a LEGACY

Telephonics Corporation was originally founded in New York City in December, 1933 as a designer and manufacturer of radio communication equipment for the Armed Services. Shortly thereafter Telephonics was awarded its first Navy contract for headphones and microphones.

FIRST PRESIDENT, FOUNDING FATHER

J. FRANK STENGEL

"Telephonics was born from an idea in the minds of a small group of people who believed there is always demand for a product of sound technical design, produced by an organization with a competent and reliable staff. "

FIRST CORPORATE OFFICE

Telephonics Corporation's first corporate headquarters, 350 West 31st Street, New York City, was located in an area known as "Hell's Kitchen."

EARLY PRODUCTS

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TC-136 HEADSET

The Telephonics' unit consists of a headband, TC89B, a cord and plug, TC86 and two TaH-37 Headphone Units. The units are a lightweight and permanent magnet type with an impedance of 300 ohms each, or 600 ohms per pair. They are excellent for code reception (CW) since they have pronounced peaks at approximately 1,100, 3,000, and 4,000 cycles.

AI-27 MULTICHANNEL ISOLATION AMPLIFIER

This amplifier is designed for use onboard aircraft to reduce interference and cross-talk between the output channels of several radio receivers, and at the same time to supplies interphone service to a limited number of station boxes.

TC-84 FERRY TRANSMITTER

15 WATT, A1 EMISSION
12 VOLT. D. C. SUPPLY
I-CRYSTAL FREQUENCY EITHER 31005 or 4495 KC

1949

MODERNIZATION and EXPANSION

After almost 20 years of expansion, Telephonics grows from a small company with a handful of employees in a 2,000 square foot facility to a company with 500 employees in an 80,000 square foot building. In September of 1949, Telephonics relocates its headquarters from Manhattan to a new and modern manufacturing plant located at 770 Park Avenue in Huntington, Long Island.

A CLOSER LOOK AT THE CTE-26003A U.S. NAVY KEY

The German Luftwaffe Flameproof Key was copied by the Allied Forces and became the CTE-26003A WW II U.S. Navy key. The first three letters indicate the manufacturer, Telephonics Corp. The 'C' is the common Navy prefix. The 'TE' denotes Telephonics as the maker. The '26' denotes this is a telegraph key. The '003' is the third model in this numbering scheme. The 'A' denotes a modification to the original design.

Although it was originally said to have been intended for use on a signal lamp, many Navy telegraph operators thought that the 26003A was the best hand key available for sending Morse code.

AS SEEN ON YouTube?

Type "Telephonics CTE-26003A U.S. Navy Fireproof CW Morse Key" in the search field to watch it operate.

1950s

SYSTEMS ANALYSES, RESEARCH and DEVELOPMENT

In the 1950s, Telephonics Corporation conducts extensive systems analyses and undertakes studies in the fields of electronics, acoustics, and the physical sciences. The research and development staffs work on basic research in these areas and also on problems relating to structures, materials, basic physics, mathematical approaches, and aeronautical and hydrodynamic designs. Telephonics now offers services that range from basic feasibility studies to analysis and synthesis of complete operating systems.

MANAGEMENT TEAM

President and Treasurer..... J. Frank Stengel
Vice President..... J. Frank Stengel, Jr.
Vice President and Corporation Counsel.....George J. Stengel
Assitant Treasurer..... Dorothy S. Pickard
Secretary..... Charlotte Reid
Comptroller..... Elsie M. Meeks
Auditor..... David D. Danish

SECOND PLANT LOCATION

FORT LAUDERDALE, FLORIDA

Telephonics Corporation's second manufacturing plant was located in Fort Lauderdale. Its primary function was dedicated to radio research and acoustical engineering.

VARIOUS 1950's PRODUCTS

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RADIO SET AN/PRC-17

A two-channel emergency radio transmitter/receiver operating on the VHF guard frequency of 121.5 mc., and the UHF guard frequency of 243.0 mc. With voice and constant or keyed-tone transmission and an internal mercury battery, the radio has a shelf life of one year, and provides eighteen straight hours of submersion-proof operation.

ACOUSTIC AID DEVICE

Created for the Air Defense Command and Ground Observer Corps, Telephonics' Acoustic Aid Device is essentially comprised of a listening ear that is fed to an acoustic amplifier and alarm. The device allows observers to remain in shelter while listening to aircraft and increases the sensitivity of the human ear when aircraft are in the neighborhood.

TP-9 FIELD TELEPHONE

Designed for the U.S. Army's Signal Corps, the TP-9 Field Telephone is a portable telephone capable of transmitting and receiving communications over a 40-mile wired line. The unit is self contained and battery operated with a crank generator for visual and bell ringing operation, with a jack for an additional external handset, and a watertight, all-weather aluminum casing.

TAD-201 DIAL (10 DIGIT)

Telephonics designs a standard, ten-digit pulsing telephone dial that is similar to those found on regular desk telephones and can be supplied with numerals, letters, or special combinations on the dial.

1960s

INSTRUMENT SYSTEMS CORPORATION ACQUIRES TELEPHONICS

In 1961, Instrument Systems Corporation (ISC), maker of electronic products for the military and commercial markets, acquires Telephonics Corporation to expand its business. ISC was initially founded in 1959, as Waldorf Controls Corporation and changed its name later that year to Instrument Systems Corp. The company's name remained Instrument Systems until 1995 when Griffon, the mythical half eagle, half lion was chosen, symbolizing the combined strengths of the firm's different divisions.

MULTIPLEXING PIONEER

In 1964, Telephonics develops the first airborne multiplex system, the Digital Intercom, for the U.S. Navy. It transmits voice over one coaxial cable among many stations, and permits transmitter and receiver selection without a switchboard. In 1967, Telephonics designs and develops the first multiplexed Entertainment and Passenger Service System for Boeing's 747 aircraft.

VARIOUS 1960's PRODUCTS

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UNDERWATER WARFARE EQUIPMENT AND SYSTEMS

In the 1960s, Telephonics is a pioneer in the field of air-towed and ship-towed Variable Depth Sonar (VDS) systems . These systems are essential in modern naval Anti-Submarine Warfare (ASW). The indoor pool located at 770 Park Avenue for testing underwater sonar equipment is commonly known as "The Fish House."

UHF-FM COMMUNICATION SYSTEM

Telephonics develops the UHF/FM Communication System, a compact, lightweight, and portable communication system designed for use in the 450 and 490 megacycle band. Worn by the user and suspended by an adjustable harness, the system consists of a transmitter, receiver, switch block, dynamic microphone, earphone, batteries, quarter-wave or half-wave antenna, and carrying harness.

103A HEADSET MICROPHONE

Telephonics begins to create communication systems that perform under severe ambient noise conditions. These systems are waterproof and blast resistant for military use.

INTERCOMMUNICATIONS SYSTEMS (ICS)

Telephonics designs the ICS stations and distribution system for the AN/AIC-14, the intercommunications system used by Navy aircraft. As an additional example, Telephonics designs the announcing system and various imput priorities for the Boeing 707 and Lockheed Electra aircraft.

New corporate logo introduced!

Telephonics

1970s

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OVER 500 PASSENGER ENTERTAINMENT SERVICE SYSTEMS SHIPPED for the BOEING 747 and LOCKHEED L-1011

Telephonics develops the first multiplexed Passenger Entertainment and Service System in 1967 for the Boeing 747 jetliner. The system has been continually reviewed for design improvements for reliability and reduced airline maintenance costs. As a result of that effort, Telephonics expands it's business to include the Lockheed L-1011.

TLSI

TLSI ESTABLISHED

In 1977, Telephonics Large Scale Integration (TLSI) is established to support the custom integrated circuit needs of its parent company, Telephonics. TLSI works to meet the diverse needs of the commercial, industrial, and military customers with advanced analog, digital and mixed-signal custom ingrated circuits.

LAMPS DATA INFORMATION TRANSFER SET (DITS)

Telephonics' DITS design applies both man-machine human factors and multiplexing to centralized cockpit control and monitoring of the intercommunication nets, radio transceivers, and navigation aids for the Navy's latest Anti-Submarine LAMPS (Light Airborne Multipurpose System) helicopter.

VARIOUS 1970's PRODUCTS

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L-1011 CUSTOM DESIGNED SEAT CONTROL UNITS

Lockheed chooses Telephonics' multiplexing technology to make the L-1011 more profitable. To complement the multiplex entertainment and passenger service systems, Telephonics designs attractively styled fingertip controls.

TELECOMMUNICATIONS ELECTRONIQUE AERONAUTIC AND MARITIME (TEAM)

Telephonics receives an exclusive license to offer the products of the French company TEAM. TEAM products inlcude the latest audio control panels, presently in use on the Boeing 747 and Concorde SST aircraft, as well as passenger address amplifiers and cockpit warning systems.

MULTIPLEXED INTEGRATED RADIO CONTROL

Console space requirements in the Navy's S-3A Anti-Submarine Warfare aircraft are drastically reduced by the use of the multiplexed Integrated Radio Control unit.

INTERCOMMUNICATIONS

Telephonics designs and develops Dial and Net Terminals for the Radio Corporation of America. These units provide voice and control functions that permit users to participate in private, conference, net, shore telephone, public address, radio, and replenishment at sea communications.

1980s

TELEPHONICS DESIGNS SYSTEMS for SPACE SHUTTLE ORBITER

Rockwell International Corporation's Space Division selects Telephonics to produce an important communications system for the Space Shuttle Orbiter. This specially designed Audio Distribution System receives, processes, and distributes, to the proper sources, voice communication and tonal signals from various stations and systems within the orbiter, to and from other spacecraft, ground stations, and relay satellites.

A TRADITION UNBROKEN

By 1983, Telephonics makes more cabin and flight deck avionics for the airline industry than any other manufacturer in the world. Telephonics' microphones and headsets continue as the mainstay of flight crews throughout the commercial airline fleet.

LAMPS MK III SUBMARINE HUNTING HELICOPTER

Telephonics makes the Communication System Control Group and Navigation Switching Interface Unit for the Navy's new LAMPS MK III Ship/Air Weapon System, the most advanced system of its kind ever developed for operations at sea.

VARIOUS 1980's PRODUCTS

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AUDIO DISTRIBUTION SYSTEM (ADS)

Designed for the Space Shuttle, the ADS multi-station network accomodates simultaneous conversations on the same channel. The system also provides the appropriate interface with the shuttle's transmitter and receiver, connecting the crew with ground control and other astronauts who may be operating outside the spacecraft.

SYSTEM 7: LARGE SCALE INTEGRATION (LSI)

System 7 replaces conventional passenger entertainment and service systems onboard the 747, L-1011, and the DC-10. The system eliminates 80 percent of all conventional components. System 7 delivers a major breakthrough in improved reliability, power consumption, and weight reduction.

HYDROFOIL INTERCOMMUNICATION SYSTEM (HICS)

HICS is in use aboard Flagstaff class hydrofoil patrol craft. It handles both internal and external communications, is a microprocessor-based high isolation system using a central control unit to link 17 crew stations and seven receivers.

CUSTOM MICROCIRCUITS

Telephonics TLSI division becomes a leader in custom microcircuit technology. It then combined advantages of a proven high technology background and one of the best equipped TLSI design facilities in the country. Because of this extensive technical background and experience, the TLSI team effectively interprets the most critical technical requirements and handles an entire program from concept to completion.

1990s

TELEPHONICS SEES ACTION in OPERATION DESERT STORM

Desert Storm places Telephonics' systems in the action. Whether onboard planes, helicopters, or on ships in the hostile Gulf theater, Telephonics provides critical communications and control functions to commanders and crews. The C-11746 intercom system works onboard Apache helicopters, Telephonics' Identification Friend or Foe, Airborne Warning and Control System (AWACS) equipment works on board the E-3A Sentry aircraft, and the Digital Audio Distribution System works on the Joint STARS aircraft.

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Griffon
CORPORATION

NEW LOOK FOR THE 90s

New Telephonics Corporation logo introduced in 1990.

Instrument Systems Corporation changes its name to Griffon Corporation in 1995.

SKYSEARCH 2000™ TURNKEY AIR TRAFFIC CONTROL SYSTEM

Skysearch 2000™ TurnKey ATC systems combine the latest technology in fusion tracking of multi-radar imputs, high resolution monitors and flight data processing with other larger terminal and enroute ATC system features in a single rack and low cost cabinet.

1990s

MARITIME SURVEILLANCE MULTI-MISSION CAPABILITY

In the 1990s Telephonics begins to focus on creating advanced maritime surveillance radar, the APS-143(V) and AN/APS-147. Telephonics' radar technology includes periscope detection, missile targeting, Low Probability of Intercept by enemy electronic surveillance measures, ISAR, SAR, and MTI imaging, and 1553 Databus. Telephonics produces over 150 maritime surveillance radar for defense and commercial customers around the world.

MICROWAVE SCANNING BEAM LANDING SYSTEM (MSBLS)

Telephonics' precise and automatic MSBLS enables safe guided landings for the NASA/Rockwell Space Shuttle. The Navy version is designated AN/SPN-41. Over 100 Microwave Landing Systems are produced and over 2,100 airborne receivers are in use around the world by all U.S. Navy carrier aircraft and other military aircraft.

VARIOUS 1990's PRODUCTS

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CRITICAL AIRBORNE IFF TACTICAL FLIGHT CONTROL

Telephonics creates the AN/APX-103 Interrogator System to provide a critical IFF capability for the for the U.S. and NATO AWACS.

NASA TRACKING AND DATA RELAY SATELLITE SYSTEM

Telephonics provides ground stations for the TDRSS' Gamma Ray Observatory and similar ground tracking installations for satellites. These systems precisely control antenna beam shape and direction to continually maintain effective long-range performance.

PROGRAMMABLE KEYPAD ALARM SYSTEM

TLSI's Application-Specific Integrated Circuits (ASIC) integrated circuits perform crucial signal conditioning that links remote sensors to an alarm processor. Integrated EEPROM nonvolatile memory allows user-defined security codes to be programmed during installation and are easily programmed in the future.

ONE-TOUCH WINDOW CONTROLLERS

Major automotive suppliers use TLSI's ASICs in the interface between the window's drive motor and switch in "express down" as well as standard down/up window controllers.

2000s

EMBARKING on the NEXT GENERATION of INNOVATION

After eight decades, Telephonics' expands its role further by adding more airborne and ground-based systems required on the modern battlefield to their portfolio. Telephonics' radar, IFF, and Air Traffic Management (ATM) systems are relied upon by customers throughout the world and diversify our position in the industry. In 2005, Telephonics acquires Systems Engineering Group (SEG), a provider of combat system engineering services.

RADAR SYSTEM SOLUTIONS

After decades of radar innovation, Telephonics' Radar Systems is a respected creator of airborne multi-mode radar and IFF systems. Our radar employ long-range detection, tracking, and identification of small targets in harsh weather conditions making Telephonics a trusted company to customers all over the world. Telephonics' IFF systems break the mold in the detection, interrogation, identification, tracking, and data extraction and can be found at airports, on aircraft carriers, surface vessels, and maritime patrol platforms.

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2000s

INTEGRATED SURVEILLANCE SOLUTIONS

In the new millennium, Telephonics begins to create border security solutions that are portable and easy to use in desert or mountainous environments. Telephonics' merges their knowledge of mission requirements, radar technology, data fusion capability, and extensive sensor integration into one system, giving the customer an advanced solution for difficult security problems. Our RaVEN™-Mobile Surveillance Capability, Portable Surveillance Capability, and Advanced Radar Surveillance Systems are solutions at airports, seaports, critical infrastructures, and borders.

COMMUNICATIONS AND INTEGRATED SYSTEMS

With eighty years of experience creating intercommunications systems, Telephonics' Communications and Integrated Systems is now a provider of highly integrated, programmable, and expandable intercommunications systems for 45 different platforms around the world.

2000s

AIR TRAFFIC MANAGEMENT SOLUTIONS

Telephonics' knowledge of ATM system technology has expanded and our team of specialists train customers to ensure smooth, secure, and effectual air traffic flow at airports and control centers. After forty years, Telephonics is a leading supplier and systems integrator in the global ATM marketplace.

MONOPULSE SECONDARY SURVEILLANCE AND PRIMARY SURVEILLANCE RADAR WITH MODE S

Telephonics develops Sky Search-2000M®, combining our Sky Search Secondary Surveillance Radar with our advanced military-qualified Monopulse Secondary Surveillance Radar (MSSR) technology to achieve superior aircraft reporting for civil ATC applications.

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2000s

TRULINK®
WIRELESS INTERCOMMUNICATION SYSTEM

Telephonics' TruLink® Wireless Intercommunication System becomes the most sought after system for military and commercial customers alike for its reliability in high noise environments, resistance to shock and vibration, and its submersibility. During fixed and rotary-wing, maritime, and flightline operations, TruLink is in use, and ensures the safety of users who are no longer tethered to the platform, but able to move freely.

WIDE BASE OF DEPLOYED SYSTEMS

The TruLink Wireless Intercommunication System is proven in a variety of air, land, and sea applications for commercial and military users with the most extensive set of aircraft certifications. Trulink is certified for use with flightline operations, aircraft production and test, transport, rotary-wing, fighters, maritime, aero medical, ground vehicles, and unmanned systems.

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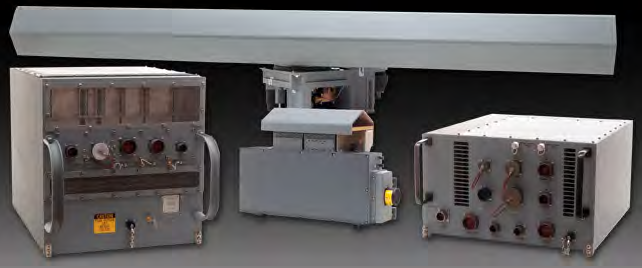
2000s

TELEPHONICS and MAHINDRA JOIN FORCES

in 2012, Telephonics joins forces with the Indian corporation, Mahindra & Mahindra, forming a joint venture that will enable Telephonics to more easily sell its products in the high-growth Indian military and civil markets. The joint venture, Mahindra Telephonics Integrated Systems Limited (MTIS), will be based in Prithla, India in late 2013.



TELEPHONICS' AN/APS-153(V) GOES TO WORK ON NAVY SHIPS

Used to perform maritime surveillance throughout the world, the AN/APS-153(V)1 radar has been used extensively on the MH-60R helicopter to detect submarines and moving ships. Now, Telephonics is creating the technology that has previously only been found on helicopters, for defense ships as the variable configuration SPS-153. This radar gives the U.S. Navy the added protection of onboard and airborne surveillance.

VARIOUS 2000's PRODUCTS

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NetCom®-VEHICLE INTERCOMMUNICATION SYSTEM

The NetCom®-V system provides complete crew intercommunications and radio management for a wide range of tactical vehicles and platforms. It consists of a single, unique Line Replaceable Unit (LRU) crew station that can be expanded for system growth up to twenty operators.

RaVEN™-PORTABLE SURVEILLANCE SYSTEM

The RaVEN™-P is designed for rapid setup, ease of use, and is rugged enough to withstand any environment and rough field handling. The system is capable of detecting and locating moving personnel day or night in any weather condition.

THE RDR-1700B RADAR SERIES

Created to satisfy diverse mission needs, the RDR-1700B series has three capability tiers for any environment. The RDR-1700B detects small maritime targets in high seas and provides superior sea-search mode performance, ISAR and SAR imaging of maritime targets, SART beacon detection, Automatic Identification System (AIS), and has a weather detection mode.

SMALL LIGHTWEIGHT TRANSPONDER (SLT)

The SLT is capable of operating in Modes 1, 2, 3/A, C, 4, 5 Level 1 and 2, Mode S Level 2es, ADS-B In/Out, and is compatible with TCAS II. The transponder accommodates a standard KIV-77 Cryptographic Computer appliqué and will provide a variety of command and control interfaces.

Telephonics' Acquisitions

EXPANDING BUSINESS and PRODUCTION CAPABILITIES

Year Acquired	Business Acquisition	Specialization
November, 1988	AIL Command Systems Division	Radar (current RS division)
March, 1992	SBM	Software
April, 2000	RDR product line from Honeywell	RDR
December, 2004	SAAB division that was a supplier for the TruLink product	TruLink Components
February, 2005	Systems Engineering Group (SEG)	Engineering Services
December, 2007	J-Tech	Technology Transfer

NEW CORPORATE LOGO

The fourth major evolution for Telephonics' corporate logo was introduced in the early 2000s. The logo as we know it today was altered from a very similar, but short-lived version that inluded the "T" within the swoosh.

FOCUSED FACTORY AND LEAN MANUFACTURING CONCEPTS

Telephonics' new operations model is built on the Focused Factory concept, incorporating a multi-functional, integrated, and co-located team with appropriately designed work cells. The Focused Factory affords the greatest opportunity for manufacturing success resulting in shorter cycle times, reduced production costs, and improved product quality.

THANK YOU

Thanks to Our Employees

For eighty years it has not been our innovative technology that has made Telephonics a great place to work, but our hard-working employees. From the bottom of our hearts we would like to thank each and every one of you for your dedication to making Telephonics a wonderful and exciting place to work.

Thanks to Griffon

Since 1961, Telephonics and Griffon Corporation have worked together to create the best electronic systems for customers around the world. Thank you, Griffon, for all the hard work and dedication you have given to this company for fifty two years.

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