

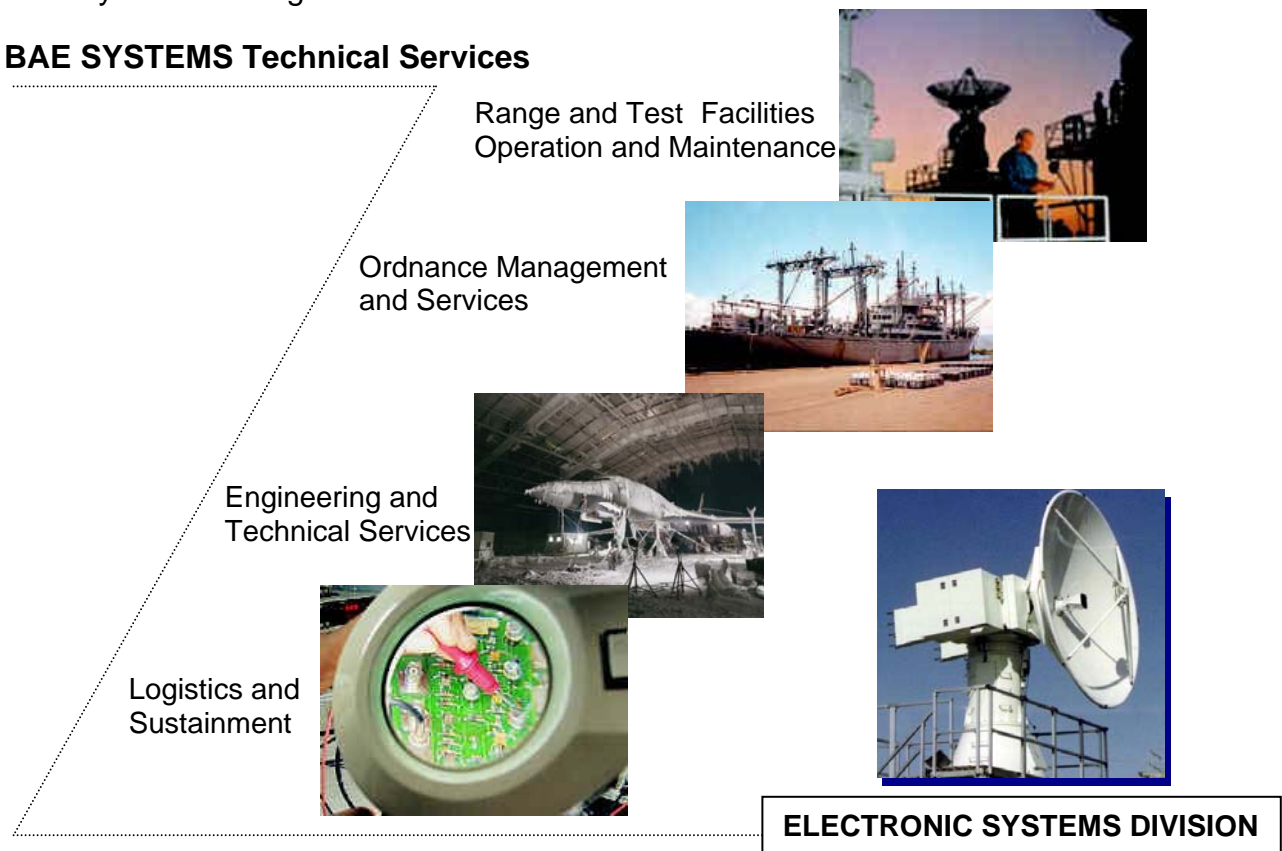
## **BAE SYSTEMS Technical Services**

### **BACKGROUND AND EXPERIENCE**

BAE SYSTEMS Technical Services Inc., a U.S. corporation with headquarters in Fort Walton Beach, Florida, has been engaged in the design, development and production of Radar and Electronic Warfare systems since 1957 – having become known worldwide as “The Radar People”. Technical Services, known previously by the predecessor company name of Vitro Services Corporation, is a member of the Technologies Services Sector of BAE SYSTEMS North America (NA).

BAE SYSTEMS NA, a U.S. corporation based in Rockville, MD, is a leading aerospace, defense electronics and information systems organization; an integral team member of the second largest defense contractor and fourth largest global aerospace and defense company worldwide – BAE SYSTEMS. BAE SYSTEMS NA employs 22,000 people at 50 operating locations in the CONUS and Hawaii in the design, development, integration, manufacture and support of a wide range of advanced aerospace products and intelligent electronic systems for government and commercial customers. BAE SYSTEMS NA is cleared by the DOD’s Defense Security Service (DSS) to operate on classified programs at all security levels through TOP SECRET.

### **BAE SYSTEMS Technical Services**

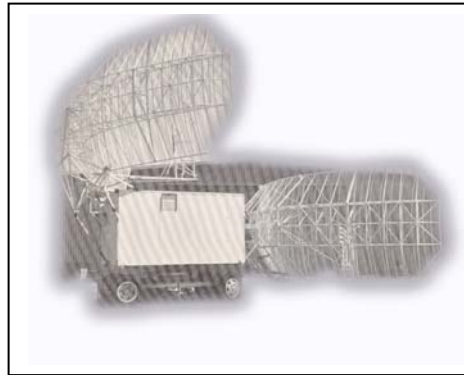


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## ***Electronic Warfare Systems***

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The Electronic Systems Division involvement with development of Electronic Warfare (EW) ranges and equipment began in 1947 on the Eglin EW Range complex. By 1959, nine threat radar simulators had been added. During the 1960's, our engineers designed and produced some of the earliest full-scale electronic and visual simulations of the Fan Song, Barlock, Spoon Rest, Flat Face and AAA systems.



Our experience in operating and maintaining EW threat simulators, combined with our long history of designing and producing EW equipment, provides BAE SYSTEMS with a unique insight into customer requirements from both a user's and manufacturer's viewpoint. Our experience offers an unequalled capability in EW test and training range support from the initial range requirements study phase to validation of ground-based and airborne threat simulation systems.



The Tactical Steerable Emitter Threat Simulator (TASETS) systems were delivered for use at Tactical Aircrew Combat Training System (TACTS) Ranges. The TASETS is specifically designed to interface with TACTS/ACMI Range. The first TASETS system included 10 emitters replicating 8 different threat radars. The second TASETS systems included 8 emitters replicating 6 threat systems remotely controlled from approximately 100 kilometers away. Antenna pointing data was received from the TACTS/ACMI Range. The Type II system included a pulse transmitter with the RF output of both transmitters dplexed to a single antenna. The Type V system included two pulse transmitters. The master transmitter emitted a single pulse train to replicate a surface-to-air missile (SAM) tracking radar. The second transmitter was synchronized to the master transmitter and emitted a complex pulse train of stationary single pulses and moving groups of 3 pulses (triplets) to replicate a missile guidance radar.

**FACT SHEET: 45 YEARS OF EXCELLENCE  
RADAR, EW and EO/IR**

<b>ELECTRONIC SYSTEMS</b>	<b>1955</b>	<b>1960</b>	<b>1965</b>	<b>1970</b>	<b>1975</b>	<b>1980</b>	<b>1985</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>
E/F-AAA EW	██████									
I-AAA EW	██████									
NIKE/IR Instrumentation Radar		██████████								
MPS-19 C-band Instrumentation Radar			██████████							
RIR-777 Instrumentation Radar				██████████						
FANSONG "A" EW				██████████						
FANSONG "B" EW				██████████						
Barlock EW				██████████						
Spoonrest EW				██████████						
Flat Face EW				██████████						
J-Band AAA EW				██████████						
545 Emitters EW				██████████	██████████					
565 Emitters EW					██████████	██████████				
575 Emitters EW						██████████	██████████			
STYX Airborne EW				██████████						
MR-780 Meteorological Radar				██████████	██████████					
MR-781 Meteorological Radar				██████████	██████████					
MR-782 Meteorological Radar				██████████	██████████					
RIR-778C Instrumentation Radar				██████████	██████████	██████████	██████████	██████████	██████████	██████████
RIR-778X Instrumentation Radar				██████████	██████████	██████████	██████████	██████████	██████████	██████████
Electro-Optical Instrumentation Tracker						██████████	██████████	██████████	██████████	██████████
Electro-Optical/IR Instrumentation Tracker						██████████	██████████	██████████	██████████	██████████
TASETS EW							██████████	██████████	██████████	██████████

## Range Instrumentation Radar



BAE SYSTEMS Technical Services, Electronic Systems Division, is the world leader in design, development, manufacture, and field support of computer-based instrumentation radars and related equipment. Over 80 radar systems have been delivered and more than 175 range instrumentation radar systems are being supported by BAE SYSTEMS at test facilities throughout the world. BAE SYSTEMS support includes design and manufacture of radar systems; installation; integration with other range resources; depot level maintenance; modifications and upgrades; training; and engineering field support.

## Range Instrumentation Radar Systems



*...with command and destruct capability*

## *Electro-Optic and Infrared Systems*



### **Optical Tracking System**



### **LTS-2000 Laser Tracking System**

As an adjunct to radar systems, our expertise in electro-optical tracking systems emerged into a standard in test range electro-optical instrumentation. The first IR tracking system was delivered in mid-1960 as part of an instrumentation radar upgrade for a NIKE Hercules tracking radar. In the mid 1970's, BAE SYSTEMS designed a state-of-the art TV/IR line scan tracking system to augment the Instrumentation Radar product line capabilities. The electro-optic product line include laser tracking systems, optical tracking systems, range-only-radar, compact tracking radar, laser ranging systems and multi-sensor tracking systems.



### **Range-Only Radar (ROR)**

**ISO 9001 Registered Quality System**

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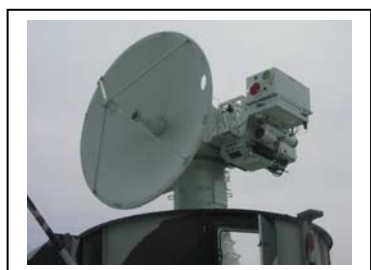


BAE SYSTEMS Technical Services, Electronics Systems Division was certified to ISO 9001 in January 1998. Certification is maintained by a system of internal audits, corporate audits, and an annual audit conducted by our registrar QMI.

**SUSTAINMENT EXPERTISE and EXPERIENCE**

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In addition to new radar systems, BAE SYSTEMS Technical Services offers cost-effective modifications and upgrades to improve performance and extend the operational life of older instrumentation systems. Comprehensive sustainment and upgrade programs have been developed for specific types of existing radar systems including the AN/FPS-16, AN/MPS-25, AN/FPQ-6, AN/TPQ-39, and NIKE systems.



Subsystem upgrades include radar signal processors, digital moving target indicators, digital range trackers, solid-state servo systems, TV and IR video trackers, solid-state modular transmitters, consoles, embedded and tail-end computers, laser tracker integration, and software enhancement packages.

**On-Site Technical Support**

Provision of on-site technical and engineering services are critical to the success of ongoing instrumentation operations. BAE SYSTEMS Technical Services has provided personal and responsive field support to a worldwide customer base and is well known for returning “down” instrumentation systems to operational use in minimum time. Other typical field support activities include correcting system malfunctions of a non-routine nature, providing calibration and accuracy evaluations, correcting alignment problems or resolving unique challenges.

# Facilities



- 10,000 square foot management and administrative facility
- 24,000 square foot engineering and test facility

- 2,800 square foot mechanical fabrication and assembly facility
- 7,200 square foot manufacturing and logistics support facility

