

## REPRESENTATIVE PRODUCT CATALOG

### *COTS and Custom ITS Model Configurations*

Integrated Tower Systems-ITS is a global leader in the **manufacture, sales and rental** of an extensive and affordable line of rapid-deployment Portable Tower & Mast Systems; **Tower & Mast Integrated Trailers, Trucks, Communication-Site-on-Wheels (COWs), and Mast-, Satellite- and Tower-Integrated Mobile Command and Communication Centers.** This state-of-the-art equipment is designed specifically to support a global contingent of *ITS* clientele representing the following industries:

- » *Telecommunications, Infrastructure Development/Restoration; Tower Owners/Operators Multi-media, Broadcasting*
- » *First Responder, Public Safety and Emergency Management; Law Enforcement, Incident Command, Search & Rescue*
- » *Homeland Defense/National Security, Domestic and Foreign Military Initiatives; Tactical and Support Functions*
- » *Immigration and Customs Enforcement, Border Security; Disaster Preparedness/Emergency Response*
- » *Geophysical, Oil & Gas and Alternative Energy; Meteorological, Frequency and Weapon Systems Testing*
- » *Transportation, Aviation, Aerospace and Construction; Entertainment, Logistics, Engineering, Municipal and Corporate Programs*
- » *Global Support of Special Events; Political, Commercial, Industrial, Sporting, Civic and Numerous other Markets/Industries Served*

In an ongoing effort to support National Security, Public Safety, Emergency Response and Military Initiatives world-wide, *ITS'* affordable and innovative rapid response systems are manufactured to both civilian and military specifications and built to withstand many of the world's most demanding environments. Whether designed for the seamless installation of common or client-specific technologies, or pre-integrated with an *ITS* or client-furnished Communications or Surveillance Solution, *ITS'* rapidly deployed equipment are proven key components in establishing the flow of vital information from remote and urban areas of need.

As an OEM and owner of North America's largest sales inventory and rental fleet, *ITS* is pleased to present a few of our most popular Commercial-off-the Shelf (COTS) and Custom Model Configurations. **For additional information, please visit our website at [www.itstowers.com](http://www.itstowers.com) or contact an *ITS* Representative Toll Free at 1 (800) 850-8535.**



- » **Equipment:** *ITS SR Series* ~ Portable Tower Trailer ~ Self-Support & Guyed Heights: **±38', 55', 72', 89' & 106'**
- » **Trailer GVWR & Dims:** 15,000 lb Capacity GVWR; to 4,500 lbs of Trailer Payload; ±30'L x 8'W x 10'6"H
- » **Tower Capacity:** Standard and Upgraded Payloads From ±550lb/250kg to ±750lb/340kg; 120-220VAC/60-50Hz Configurations
- » **Common Use:** Surveillance, Site Security, Remote Communications, Meteorological Testing, Lighting, Disaster Recovery, Temporary Cell Site (Site Development and Restoration), Site Surveys, Oil & Gas Exploration/Production Sites



- » **Equipment:** *ITS TMT Series* ~ Truck-Mounted Tower System ~ Self-Support & Guyed Heights: **±38', 55', 72', 89' & 106'**
- » **GVWR & Dims:** 19,500 lb to 33,000 lb Capacity GVWR; ±3,000-6,000 lbs of Truck-bed Equipment Payload; ±30'-36'L x 8'W x 10'6"-12'6"H
- » **Tower Capacity:** Standard and Upgraded Payloads From ±550lb/250kg to ±750lb/340kg; 120-220VAC/60-50Hz Configurations
- » **Common Use:** Sensor Applications, Communications & Surveillance, Disaster Recovery, Emergency Response, Remote Communications



- » **Equipment:** *ITS NC/SR Series* ~ Comm-Site-on-Wheels (COW) ~ Self-Support & Guyed Heights: **±55', 72', 89' & 106'; Custom ±120' & ±125'**
- » **GVWR & Shelters:** 20,000 to 36,000 lb Capacity GVWR; from 5,000 to 9,000 lbs of Payload; **Typical Shelter Sizes: 8' – 16'L x 8'W x 8'H**
- » **Tower Capacity:** Standard and Upgraded Payloads From ±550lb/250kg to ±750lb/340kg; 120-220VAC/60-50Hz Configurations
- » **Common Use:** Temporary Cell Site, Surveillance, Incident Command, Emergency Response, Site Security, Systems Testing



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### *COTS and Custom ITS Model Configurations*



- » **Equipment:** *ITS IT & IT-G Series* ~ Portable Tower Trailer ~ Self-Support & Guyed Heights:  $\pm 38'$ ,  $55'$ ,  $72'$ ,  $89'$  &  $106'$
- » **GVWR & Dims:** 18,000 lb Capacity GVWR; to 6,000 lbs of Trailer Payload;  $\pm 31'$ - $33'$ L x  $8'$ W x  $11'6"$ H
- » **Tower Capacity:** Standard and Upgraded Payloads From  $\pm 550$ lb/250kg to  $\pm 750$ lb/340kg; 120-220VAC/60-50Hz Configurations
- » **Common Use:** Temporary Cell Site - Development & Restoration, Surveillance, Testing, Lighting, AM Radio, Site Security



- » **Equipment:** *ITS SRS Series* ~ Portable Tower Trailer (C-130 Aircraft Transportable) ~ Self-Support & Guyed Heights:  $\pm 38'$ ,  $55'$ ,  $72'$ ,  $89'$  &  $106'$
- » **GVWR & Dims:** 15,000 lb Capacity GVWR; to 4,500 lbs of Trailer Payload;  $\pm 30'$ L x  $8'$ W x  $8'3"$ H
- » **Tower Capacity:** Standard and Upgraded Payloads From  $\pm 550$ lb/250kg to  $\pm 750$ lb/340kg; 120-220VAC/60-50Hz Configurations
- » **Common Use:** Sensor Applications, Communications & Surveillance, Site/Border Security, Disaster Recovery and Remote Communications



- » **Equipment:** *ITS SC Series* ~ Comm-Site-on-Wheels – (COW) ~ Self-Support & Guyed Heights:  $\pm 55'$ ,  $72'$ ,  $89'$  &  $106'$ ; Custom  $\pm 120'$  &  $\pm 125'$
- » **GVWR & Shelters:** 24,000 to 60,000 lb Capacity GVWR; 5,000 to 30,000 lbs of Payload; Typical Shelter Sizes:  $8'$  –  $20'$ L x  $8'$ - $10'$ W x  $9'$ - $6"$ H
- » **Tower Capacity:** Standard and Upgraded Payloads From  $\pm 550$ lb/250kg to  $\pm 750$ lb/340kg; 120-220VAC/60-50Hz Configurations
- » **Common Use:** Temporary Cell Site, Surveillance, Incident Command, Emergency Response, Site Security, Systems Testing



- » **Equipment:** *ITS SRS-C Series* ~ Tower Trailer (C-130 Transport) ~ Self-Support & Guyed Heights:  $\pm 38'$ ,  $55'$ ,  $72'$ ,  $89'$ ,  $106'$ ; Custom  $\pm 120'$  &  $\pm 125'$
- » **GVWR & Dims:** 20,000-26,000 lb Capacity GVWR; to 7,500 lbs of Trailer Payload Capacity;  $\pm 33'$ - $38'$ L x  $7'8"$ -  $8'$ W x  $8'4"$ H
- » **Tower Capacity:** Standard and Upgraded Payloads From  $\pm 550$ lb/250kg to  $\pm 750$ lb/340kg; 120-220VAC/60-50Hz Configurations
- » **Common Use:** Sensor Applications, Communications & Surveillance, Site/Border Security, Disaster Recovery and Remote Communications



- » **Equipment:** *ITS CLT Series* ~ Comm-on-Light-Truck – (COLT) ~ Self-Support Height to  $\pm 60'$ ; Guyed to  $\pm 100'$ ; Single or Tandem Mast
- » **GVWR & Shelters:** 25,999-36,000 lb Capacity GVWR; to 15,000lbs of Payload; Shelter Sizes:  $8'$ - $20'$ L x  $8'$ W x  $9'$ - $6"$ H
- » **Mast Capacity:** Standard Payload to 200lbs; Upgraded Payloads to  $\pm 450$  lbs
- » **Common Use:** Telecommunications, Media Broadcasting, Disaster Recovery/Emergency Response – Mobile Command



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### *COTS and Custom ITS Model Configurations*

- » **Equipment:** *ITS MT Series* ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to  $\pm 80'$  AGL
- » **Trailer GVWR & Dims:** 7,000 lb Capacity GVWR; to 4,000lbs of Payload; Transport Dims:  $\pm 18'L \times 7'W \times 7'3'H$ ; Deployed Dims:  $18'L \times 13'W$
- » **Mast Capacity:** Standard Payload to 200lbs; Upgraded Payloads to 400 lbs; Mast Access Ladder with OSHA-compliant Fall Arrestor
- » **Common Use:** Telecommunications, Surveillance, Broadcasting, Disaster Recovery, Site Surveys, Energy Production, Site Security, Systems Testing



- » **Equipment:** *ITS COW Series* ~ Trailer-Mounted Shelter & Mast System ~ Self-Support Pneumatic Mast Height to  $\pm 60'$
- » **GVWR & Dims:** 15,000 – 20,000 lb Capacity GVWR; to 10,000lbs of Payload; From  $22'L \times 8'W \times 12'6"H$ , **Typical Shelter Sizes:**  $8'-12'L \times 8'W \times 8'H$
- » **Mast Capacity:** Standard to 200lbs; Upgraded Payloads to 400 lbs
- » **Common Use:** Telecommunications, Surveillance, Broadcasting, Disaster Recovery, Site Surveys, Energy Production, Site Security, Systems Testing



- » **Equipment:** *ITS RD-S Series* ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to  $\pm 60'$  AGL
- » **Trailer GVWR & Dims:** 6,000 lb Capacity GVWR; to 1,800lbs of Payload; Transport Dims:  $\pm 13'3"L \times 7'1"W \times 7'8"H$ ; Deployed Dims:  $13'3"L \times 14'W$
- » **Mast Capacity:** Standard Payload to 200lbs; Mast Access Ladder with OSHA-compliant Fall Arrestor
- » **Common Use:** Border Security, Surveillance, Disaster Recovery/Emergency Response, Site Surveys, Energy Production/Mining, Site Security



- » **Equipment:** *ITS RD-T Series* ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to  $\pm 80'$  AGL
- » **Trailer GVWR & Dims:** 12,000 lb Capacity GVWR; to 6,000lbs of Payload; Transport Dims:  $\pm 16'0"L \times 7'1"W \times 7'8"H$ ; Deployed Dims:  $16'0"L \times 14'W$
- » **Mast Capacity:** Standard Payload to 450lbs; Mast Access Ladder with OSHA-compliant Fall Arrestor
- » **Common Use:** Border Security, Surveillance, Disaster Recovery/Emergency Response, Site Surveys, Energy Production/Mining, Site Security





**ITS Rental and Flexi-Fleet Configurations ~ Portable Tower Systems**



- » Primarily  $\pm 106'$  (33m) Self-Supporting & Guy Capable Tower Elevations; Lower Height Use Acceptable
- » Fully Automated, Direct Drive Tower Operating System; No Belts, No Chains, No Guy Wires Required
- »  $\pm 550$  lb/250kg Standard Tower Load Capacity; 120VAC/60Hz Primary Configuration
- » Greatest Self-Supporting and Guyed Wind/Payload Capacity of Any Comparable Tower System
- » Multi-Terrain, Custom Drawbar Trailer;  $\pm 9'0''$ L x  $8'0''$ W x  $4'6''$ - $6'6''$ H Equipment Payload Area
- » Standard 15,000 lb/6,803kg Capacity Trailer GVWR; to  $\pm 4,000$ lb/1,814kg Trailer Payload Equipment Capacity

ITS Rental Programs offer a wide variety of innovative, efficient and flexible options to meet customer's temporary, long-term, and emergency communications needs. Whether originating from ITS manufacturing headquarters or a Domestic or International Fleet Depot, we offer customers both in-house and field services including; training, equipment integration, deployment and decommissioning coordination, customs and transportation logistics, and other necessary services to assist with temporary use requirements.

As designed, each trailer's skeletal frame is engineered with a minimum factor of safety of 2:1, with 4:1 in critical load areas. A multi-section  $\sim 21'0''/6.4$ m each, lattice steel telescopic structure is designed to transport horizontally over the trailer's equipment platform and automatically tilt by means of a heavy-duty, chrome plated hydraulic cylinder. The tower system is raised to its full extension utilizing a direct drive, minimum 1HP, totally enclosed fan cooled (TEFC), wash-down rated electric winch motor and gearbox assembly. **Each Portable Tower System model is capable of being deployed, elevated to its full-extended height, and secured by a mechanical tower lock mechanism by one person in under 30 minutes.** For added security and stability during poor weather conditions, excessive loading, long-term deployment, or to minimize structure deflection for critical applications, the tower may be further protected by the use of an included guy cable and ground anchor system

**ITS Portable and Fixed-Foundation Telescopic Tower Systems**



**ITS Telescopic Tower Systems – "B" & "C" Series (Standard and Reinforced)**  
COTS Self-Supporting and Guyed Elevations:  $\pm 38'$ , 55', 72', 89' & 106'; Customized to  $\pm 120'$  & 125'

ITS self-supporting and guy capable telescopic steel structures are fully automatic, have extended heights ranging from  $\pm 38'0''/12$ m to  $\pm 130'0''/40$ m above ground level (AGL), standard payloads from 550lbs/250kgs to  $\pm 750$ lbs/340kgs, and offer the greatest self-supporting and guyed wind load capacity of any comparable tower system. ITS telescopic structures may be utilized solely in the self-supporting configuration to their maximum extended elevation  $\sim$  no guy wires required except in cases of excessive loads, extreme wind velocity, or to minimize deflection for critical applications.

ITS towers may be custom manufactured for installation directly to a concrete foundation or integrated atop numerous ITS trailer, truck, skid or similar platforms. A rigorous Finite Element Analysis Program, performed and certified by an industry recognized, unaffiliated Structural Engineering and Consulting Firm, may be utilized to perform stress analysis review to determine tower member design in conformance with **ANSI/TIA-EIA 222-G, CSA-S37** and other industry accepted requirements for each client-specific load configuration. The latticed tower members are modeled using beam elements for the leg members, truss elements for the bracing and cable elements for the raising, lowering and support cables. The structural parameters and geometry of the members are included in the tower modeling. The wind loading are calculated for the different wind directions and then applied as external loads on the structure with the self-weight loading internally determined. In order to obtain the maximum stress occurring in all tower members and guy wires (if utilized), three different wind directions relative to the tower and optional guys (Face Wind, Apex Wind, Parallel Wind) are considered.

The ITS tower is comprised of two (2) to six (6), heavy duty, hot-dipped galvanized steel lattice sections mounted to either a tilt-base support structure or a steel anchor base plate when affixed to a concrete foundation. The tower may be tilted to the vertical position by a single or tandem heavy-duty chrome plated hydraulic cylinder(s) and automatically elevated by an advanced, direct drive motor/gearbox. The tower section raising assembly utilizes a heavy-duty drum with a redundant cabling system comprised of a series of  $\frac{1}{4}$ " and  $\frac{5}{16}$ " aircraft quality cables to raise, lower and stabilize the erected tower sections. In addition, the redundancy of the tower cabling configuration and a positive pull down system provide for the raising/lowering, securing/supporting of each individual interior tower section by a series of three (3) independently anchored cables. The engaging of a limit switch controlled mechanical tower lock mechanism further ensures the safety and stability of the erected structure.

The ITS tower's tilt and telescoping functions are automatically engaged and disengaged by the use of tower and tilt-base mounted electronic limit switches. Contained within a locking weather resistant NEMA cabinet, a proprietary control system utilizing a **120VAC/60Hz or 220VAC/60-50Hz** power supply operates the tower. To protect the tower's sensitive electronics from exposure to the elements, operating control switches are accessible through a weather protecting outside panel. Illuminated (LED) low volt warning and tower functions lamps (tilt and telescope) as well as a key lock power engagement device are several of the safety features incorporated into each tower's central control system.

ITS models include both commercial and military configurations; many of which are capable of withstanding harsh environmental conditions and transport challenges inherent to both urban and remote regions of the world. Transport capabilities include C-130 or larger fixed wing aircraft, flatbed trailer, 2 or 4-wheel truck, rail, sea and over-the-road tractor. ITS towers designed for fixed foundation installations or mobile applications may be shipped complete or modularly allowing for containerized transport and easy in-country re-assembly.