Raptor
Global Services, Inc.

Security & Safety Solutions for the Energy Sector

September 11, 2011

www.raptorglobalinc.com

Security & Safety Solutions & Services for the Energy Sector in High-Risk Emerging Markets

Raptor Global Services, Inc. provides the highest quality technology-based safety and security solutions, in high-risk emerging markets, at cost-effective prices. The company provides sophisticated security technology that supports a wide variety of personnel status, facility monitoring and asset recovery applications.

Raptor has formed strategic alliances with some of the world's leading providers of proprietary applications and advanced security hardware. These unique alliances are focused on insuring the safety of personnel, safeguarding critical facilities, tracking the whereabouts of assets and monitoring the movement of vehicles in hostile and high-risk environments. When deploying these systems, Raptor works closely with in-country military and security forces to ensure full cooperation and assistance from local, provincial and federal governments.

Many of Raptor's products and services were originally designed for use by the Department of Defense, and are in use by security agencies around the globe. Military versions of a number of these systems are in use today, supporting critical applications in hostile environments such as Iraq, Afghanistan, Somalia and Bosnia.

Raptor Global Services Solutions and Services

We live in an era where the safety of personnel, the security of facilities, and the protection of assets have come under increasing threat from the forces of terrorism and criminal elements. Raptor Global Services, Inc. has responded to this threat by creating a cost effective approach to security through a unique portfolio of technology-based solutions and products that are geared to:

- Safeguarding personnel in hostile environments,
- Supporting perimeter security in high-risk areas,
- Deploying video surveillance and communications systems in remote locations,
- Providing vehicle status and tracking over a wide area,
- Insuring asset tracking and protection in potentially high pilferage situations.

By combining the elements of proprietary hardware with innovative applications and software Raptor provides a 'seamless' end-to-end package of cost-effective applications, solutions and services, without peer in the world of high-risk emerging market security.

Raptor is Unique

- Access to some of the most advanced systems for the safety and security of personnel, facilities, vehicles and assets.
- The unique integration of declassified security hardware, with advanced technology and low overhead allowing Raptor to extend highly competitive prices to its clients.

- Advanced software, coupled with innovative middleware, to seamlessly integrate and interpret threat data from multiple sources over a variety of transmission mediums.
- Operation of a 7X24 Tactical Operations Center (TOC), where the status of personnel, facilities, vehicles and assets are continuously monitored, potential threat situations are analyzed and appropriate responses are coordinated.
- Strategic partnerships with some of the world's most experienced security technology firms to ensure the introduction of 'mission-tested' equipment in hostile environments.
- Highly trained and experienced technical personnel prepared to install, maintain and operate systems in any situation.
- Seamless integration of all aspects of the business from deployment of hardware, support of applications, and 7X24 status monitoring- to provide an end-to-end solution.

The Problem- Vulnerable Industries

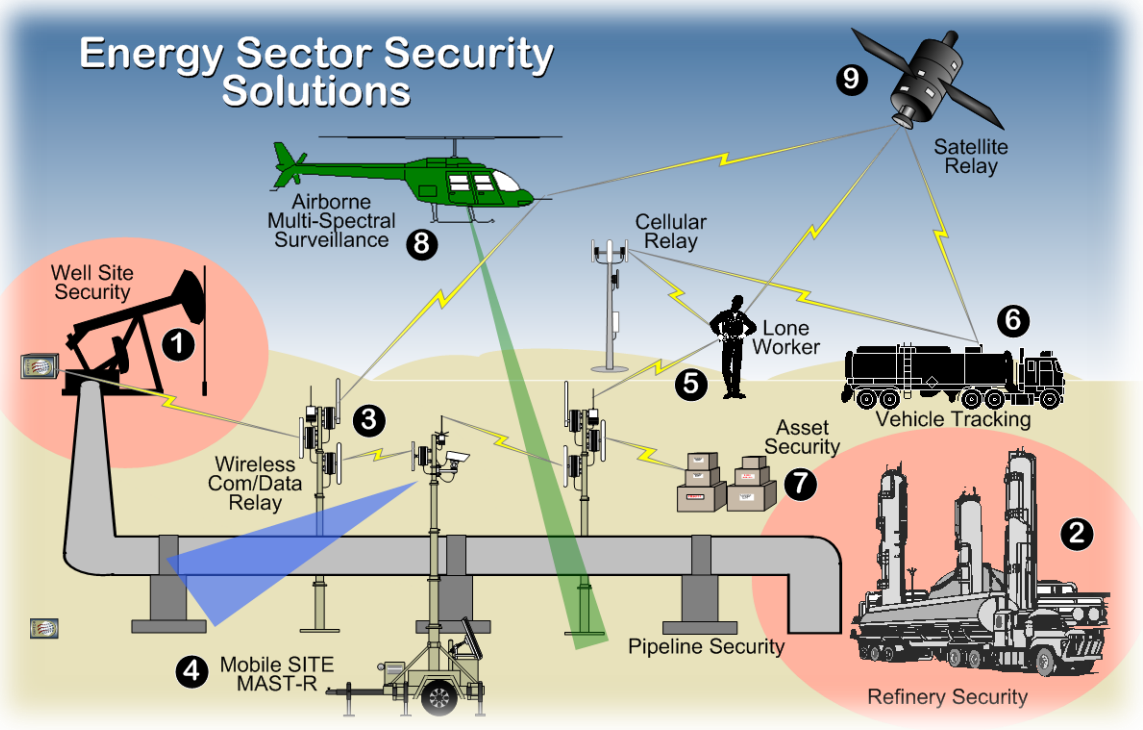
It can be argued that the world is less safe today than anytime in the recent past. Whether or not this is true, the fact is that in certain parts of the world facilities are threatened more frequently, property is stolen at a record rate, and people face threats to their personal safety on a much more regular basis than ever before. Certain business segments must confront these threats on a day-today basis. Prime among these is the oil and gas industry where, due to far flung operations in volatile parts of the world, companies face the regular loss of valuable assets, as well as the increasing threat to the safety of their employees. Recent kidnappings of oil company personnel in West Africa and the Middle East have demonstrated this problem first hand.

The oil and gas industry has a long history of operating in unstable political environments. Beginning in Latin America in the early 1920s till now, the industry has long been subjected to the political whims of the day.[1] Today, with the price of oil at record highs, oil has become the currency of power, and as it has been with all such currency, those associated with its production, movement and storage are increasingly at risk. Mitigating those risks has become a full time effort on the part of the oil companies, whether it is investigating with the theft of valuable equipment taken from a drilling rig in Texas, or dealing with the threat to the personal safety of an executive and his family living and working in the Middle East.

Raptor serves the security and safety needs of small to medium size oil exploration, drilling and production companies engaged in activities in areas where potential threats to safety or property exist. Our focus is on companies that do not have the internal resources to devote to security technology issues, but many times are in the greatest danger by virtue of the contracts they undertake, and the areas of the world they operate in. This industry segment has traditionally been 'priced out' of the high-technology security market by the exorbitant fees assessed by large security companies.

[1] *"Multinational Oil Companies in South America in the 1920s: Argentina, Bolivia, Brazil, Chile, …" M Wilkins - The Business History Review, 2004 – JSTOR*

Raptor Pipeline Safety and Security Solutions



The drawing above shows many of the services and solutions provided by Raptor and its strategic associates for pipeline and perimeter security and safety.

Specific elements of the comprehensive solutions and service package are indicated by the circled numbers. These include:

❶ Wellhead & pump site perimeter security,

❷ Refinery perimeter security and safety services,

❸ Pipeline security and communications,

❹ SITE MAST-R pipeline video surveillance,

❺ "Lone Worker" – "Man Down" personal safety systems,

❻ Vehicle status, security and safety,

❼ Asset inventory control and tracking,

❽ Airborne multi-spectral surveillance,

❾ RFID, Wi-Fi, satellite and cellular connectivity,

❿ Incident Management System with rapid response and resolution.

A more complete overview of each of these elements may be found within the following pages.

❶ Wellhead and Pump Site Security and Safety Services

Raptor provides a wide variety of security and safety applications, products and services for well heads and pump sites in high-risk emerging markets. These sites are particularly vulnerable when it comes to the need for safety and security solutions, since many times these sites are located in remote areas. As such, it is not only difficult to monitor the status of the site on a 'real-time' basis, but also to respond to security-related situations in timely manner. Well drilling sites in particular are prime targets since they usually have a good deal of equipment and supplies on-site that are ripe for pilferage or vandalism when construction personnel are not present.

Pump sites are unique in that they have a need not only for security, but for operational needs such as the monitoring of tank levels and pump performance. In domestic situations these functions are usually carried out by frequent on-site visits. However, in a remote and/or hostile environment a casual site visit is not only a matter of time and cost, but also personal safety.

Raptor offers a complete line of perimeter security, asset inventory and tracking and personal safety solutions for these situations. This includes: the SITE MAST-R video surveillance and communications systems, a quickly deployed portable or mobile system that incorporates a comprehensive package of perimeter security, video surveillance, communications and machine-to-machine control applications. (The SITE MAST-R system is described in greater detail further on in this document.)

❷ Refinery Safety and Security Services

Refineries in high-risk emerging markets are high-profile targets for acts of terrorism, and as such have their own unique set of safety and security requirements. Security systems incorporate a high degree of functionality intended to ensure the integrity of the site's perimeter. These include magnetic detection, fence-mounted acoustic transducers, buried seismic detectors, passive IR motion detectors, video surveillance and other highly proprietary sensors. Many of these are systems are declassified commercial versions of military hardware in use today at some of the US Government's most sensitive installations, both domestically and around the world.

In addition, Raptor is also equipped to provide refinery workers some of the most advanced commercial personal safety systems available today including the "Raptor-PST" Lone Worker" or "Man Down" location/response system.

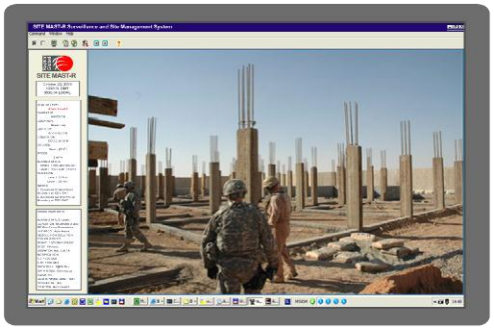
❸ Pipeline Security & Communications

Pipeline safety and security is a growing problem. Providing perimeter security and flow disruption/spill monitoring for pipelines is a high priority for Raptor and as such, the company has developed a wide variety of applications, hardware and services for the job. The perimeter security package incorporates multiple detection devices; microwave, passive infrared, acoustic, seismic, proximity and hard-wired alarms with a sophisticated multi-spectral surveillance video imagery system that transmits real-time video streamed images, or continuously updated high resolution *snapshots*, via wireless, cellular or satellite networks back to the Raptor tactical operations center (TOC).

Due to factors such extreme temperatures, ambient noise, high winds (and accompanying sand storms), and incursion of animals, traditional detection systems tend to *false alarm* on a regular basis, thus severely affecting the ability of the system to accurately notify security specialists in the event of an actual alarm. The Raptor system is different in that it incorporates the same highly proprietary technology used by the US Department of Defense and various US intelligence agencies to separate the day-to-day *clutter* of normal operations from an alarm condition and establish a *signature* for both normal and potential threat conditions.

The status of the perimeter is constantly monitored, using Raptor's proprietary "Raptor-IMS" network management system. In the event of an *incident*, Raptor TOC personnel follow a carefully crafted escalation and notification procedure that incorporates any number of elements including, mass notification, coordination with local authorities, and, in certain circumstances, dispatching private security personnel to resolve the situation.

❹ SITE MAST-R Video Surveillance



A major problem in providing security and technical oversight for construction sites in remote locations around the world is the cost, time and risks involved in dispatching qualified people to support these efforts. This problem is compounded when the site is in a potentially high-risk location, such as a war zone, or a region that is in the midst of political turmoil.

That is why Raptor has developed the SITE MAST-R (Site Management, Assessment, Surveillance & Telecom- Remote) system. The SITE MAST-R system is designed to support site security, safety and telecom needs by providing remote video surveillance, perimeter security, personnel status, asset tracking and communications to virtually any location in the world via the Internet. The system can also be used to monitor and assess the progress of construction activities on the site by providing a real-time view of the site. This feature greatly reduces the amount of time qualified oversight personnel need to be on the site, and reduces their exposure to potential danger due to the need for fewer trips to the site.

The Raptor SITE MAST-R system allows multi-national companies to utilize local 'in-country' resources and still meet project goals by providing a conduit for home-base management to oversee many aspects of construction on a real-time basis. With the SITE MAST-R system the best engineering, architectural and project management talent can be utilized in support of multiple projects, in locations throughout the world, without the need of venturing forth from their primary place of work.

Our recent experience deploying the SITE MAST-R system in southern Iraq has demonstrated potential cost savings of over 70%. These cost savings are derived from the SITE MAST-R system's ability to mitigate the ever increasing cost of international travel, insurance, life support and security services related to maintaining an X-Pat presence on the ground in hostile environments.

❺ Personnel Safety and Security

In an era where the safety of personnel has come under increasing threat from the forces of terrorism and criminal elements, Raptor has responded by creating a solution that specializes in the tracking of personnel on a worldwide basis. The Raptor system incorporates some of the most sophisticated and advanced electronic tracking systems available today to dynamically monitor the location and status of key personnel. In addition, Raptor is different from companies that merely track and report on the status of personnel in that Raptor has the capability of dispatching rapid response security forces to deal with potentially life threatening situations.

Raptor-PST "Man Down" and "Lone Worker" products are the cornerstone of the company's personnel security and safety products. Both operate in a similar fashion in that the rugged *industrialized* transceivers are small, self-contained "pager-size" units that can be worn on the belt, in a pocket or on a hard hat. The transmitter has two buttons, one green and one red. The green button can be pushed to send an "all is well" ping to the receiving unit. This signal is relayed via Wi-Fi mesh, cellular or satellite to the TOC and shows the location and status of the person wearing the unit. In the event of an emergency, the red button can be pushed which sends a Level One alarm to the TOC, at which time the highest level of response/resolution is applied to the situation.

The unit can also be programmed to automatically "ping" on a regularly scheduled basis. The personal unit also has a "Man Down" feature in that if the unit is horizontal for a pre-programmed period of time an alarm is sent to the TOC. This feature is applicable in situations where noxious gases or other safety hazards may be present and the worker may be suddenly incapacitated. Smaller "pendant-size" Raptor-PST units are also available. These can be worn by executives, office personnel or other workers in less harsh environments. These systems function in a similar fashion to the "ruggedized" version.

Raptor offers a specialized version of the Raptor-PST "Lone Worker" system for overseas deployments. This system is designed for use in situations where the potential of a *kidnapping-for-ransom* situation may exist. Recent press reports have noted that kidnapping for ransom has become virtually a *cottage industry* in countries such as Nigeria and Mexico,

with oil company executives being prime targets. This service is coupled with the Raptor-PSS (Protective Security Service) program described elsewhere in this document.

❻ Raptor-FST- Fleet and Vehicle Tracking

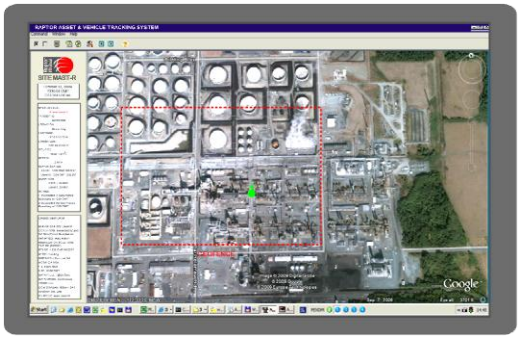
Vehicle tracking is a crowded field with over two hundred and fifty companies domestically engaged in some level of geospatial fleet and vehicle tracking[2]. However, most are in the general transportation area and do not have a particular emphasis on the energy sector.

Raptor has the most advanced applications, hardware and services designed to track and monitor the status of assets, and transportation. While most geospatial tracking systems employ a single mapping overlay, the Raptor "modular" approach to the integration of software, applications and hardware allow various systems to seamlessly interact between the most popular mapping applications. This results in highly detailed and accurate map overlays, regardless of location.

Raptor tracking systems incorporate a combination of land-based GSM/GRPS and CDMA cellular, GPS and A-GPS systems, as well as LEO and GEO mobile satellite systems to ensure ubiquitous and reliable coverage on a local, regional or worldwide basis, both indoors and outdoors. Raptor systems range from small hand-carried or concealed personal units, to hidden or embedded asset and vehicle tracking systems with a battery life of eight years or more.

The Raptor vehicle tracking system is particularly suited to improving driver efficiency, maximizing routes, locating hard to find wells, and ensuring that vehicle operators comply with DOT, EPA, OSHA and other governmental regulations.

❼ Asset Inventory Control & Tracking



Asset inventory control and tracking includes the capability of monitoring and tracking the location and status of high-value assets. The theft of valuable property and assets has become almost epidemic both domestically and internationally. The theft of equipment such as pumps, compressors, heavy equipment and tools is common at job sites and well locations. Just as often many high value items are *misplaced* during the frantic pace of production activities and, while they may not have been misappropriated, locating them can still take valuable time and resources.

With this in mind, Raptor has developed a highly proprietary job site asset tracking system that employs a combination of RFID, Wi-Fi Mesh, cellular and satellite, not only locate lost or

[2] Source: Directions Magazine, March 2009:

stolen assets, but also to maintain logistical control of valuable property. The system operates by establishing a “geo-fence” that defines the space in which the property is allowed to move. Multiple geo-fences or “zones” may be established with various levels of threat conditions assigned to each zone. The Raptor TOC is notified when an asset moves beyond pre-established boundaries and appropriate response/notification measures are taken.

The Raptor job site security system is not only used to notify the TOC in the event of a threat, but also to manage inventory in remote locations. The logistics management system interfaces with existing inventory control systems to maintain a dynamic record of assets. The system, originally designed to handle military deployments of troops, hardware and resources in combat situations, is ideally suited to keeping track of valuable property and assets on a worldwide basis.

❽ Multi-Spectral Airborne Surveillance

Raptor-MSS, under development by Raptor and its associates, is a highly proprietary multi-spectral surveillance system designed to locate and identify specific “abnormalities”, using an airborne platform, from heights as great as ten thousand feet (3 km) or more.

The Raptor-MSS airborne surveillance system incorporates the most sophisticated spectral analysis algorithms currently available to interpret abnormalities that may be present in any of over fifty spectral bandwidths. The image resolution is so great that it can detect an abnormality smaller than six inches (150 mm) from ten thousand feet with precision accuracy.

Highlights of Raptor-MSS:

- The military version of Raptor-MSS is scheduled for near-term deployment to locations in hostile environments worldwide to detect buried mines, IEDs, trip wires, ordinance, snipers, etc.
- The enterprise version will be available in early spring 2008, and when combined with the Raptor-IMS (incident management system), will be offered by Raptor as an end-to-end incident identification/resolution solution for these applications:
  - Pipeline and offshore platform monitoring- detection of leaks, both above and below surface, and the ability to detect minor spills before they become major environmental hazards,
  - Perimeter security- the ability to detect incursions, penetrations, etc., including tunneling activities, into secure facilities and under fenced perimeters,
  - Oil and mineral exploration- the ability to effectively identify and interpret soil and terrain conditions favorable to oil and mineral deposits.
  - Mine clearing- providing civilian organizations (NGOs) and government agencies the ability to detect and locate, with extreme precision, the placement of buried land mines, IEDs and unexploded ordinance in areas in an adjacent to pipelines,

- Depending on configuration, Raptor-MSS can be used to detect below-ground abnormalities to a depth of twelve feet (4 m) or greater.
- Raptor-MSS is also available in an interactive wireless networking format that allows land-based operators and analysts “real-time” access to the system during operations.
- Raptor-MSS surveillance services are cost effective and are available either on a monthly retainer or a “per event” ad hoc basis.

While Raptor-MSS is intended to be provided as a service-based solution, the system is available for sale, under certain situations, to governments and commercial enterprises upon US Department of State approval.

❾ RFID, Wi-Fi, Satellite and Cellular Connectivity

Another unique feature of the Raptor portfolio of solutions and services is the proprietary wireless *hybrid* platform. Unlike most tracking and status monitoring solutions that use a single pathway for data reporting, Raptor incorporates multiple platforms, seamlessly integrated into a *least cost-best available* transmission system. This ensures that critical data is never lost due to unavailability of the transmission path.

For example, in a warehouse, job site or storage yard, RFID may be incorporated to track and account for assets and property. RFID has low operational cost since no outside network provider is involved (except for data backhaul), and thus little or no monthly recurring service charges are assessed. However, RFID is also limited in the area it covers. Effective coverage is usually measured in feet or yards.

WiMAX, Wi-Fi and Wi-Fi-Mesh provide much better coverage and better data throughput capability. However, WiMAX or Wi-Fi systems must be purchased, installed and maintained. Wi-Fi Mesh systems are ideally suited for offshore platforms in that they can be utilized to not only serve as a wireless aggregation point for status monitoring and tracking, but also can distribute a wide variety of telecom and Internet-based services. However, Wi-Fi systems are, at best regional in coverage, and a means of *backhaul* must be provided to transport the data to a gateway. This can be accomplished by VSAT, point-to-point wireless and in some cases cellular.

Cellular is perhaps the best *compromise* system when considering cost and availability. Newer cellular systems have been designed to accommodate short burst data (SBD) transmission such as the General Packet Radio Service (GPRS) used by GSM. GPRS is a cost effective way to communicate either simplex (one-way) or duplex (two-way) from a data modem and coverage is much wider that currently available through Wi-Fi Mesh. However, cellular is by no measure *ubiquitous*. Since cellular networks are built to accommodate users in cities, towns and interstate highway corridors, serious *gaps* in coverage are apparent in rural or remote areas. In some instances

specialized cellular providers have built and operate networks that cover specific areas and/or applications, such as off-shore platforms in the Gulf of Mexico.

Satellite coverage is the most ubiquitous of all transmission paths. However, satellite is also the most expensive in terms of monthly recurring cost. Satellite is also limited in access since *open skies* are normally required in order to receive or transmit to and from the satellite.

Raptor incorporates multiple mobile satellite (MOBSAT) solutions in order to provide the best coverage possible. By using a combination of low earth orbiting satellites (GlobalStar, Iridium and Orbcomm), with a global geosynchronous satellite network (Inmarsat), Raptor can provide continuous coverage anywhere on the face of the globe on land or at sea.

When combined with the other wireless transmission methods previously described, the Raptor status monitoring/tracking platform can provide continuous end-to-end coverage without ever experiencing a break in communications.

❿ Raptor-IMS- Web-Based Incident Management

Raptor adds another dimension to personnel and asset tracking by providing a comprehensive monitoring and threat analysis service on a 7X24 basis. The activities, status and locations of personnel, vehicles and assets are tracked and monitored from the Raptor tactical operations center (TOC). Any change of status from a predefined activity level is immediately relayed to the TOC, where the data is interpreted to determine whether a threat exists, or an incident is taking place. In the event of an incident, appropriate resources are directed to resolve the situation.

"Operator Overload" is one reason why many network operations centers (NOCs) encounter serious problems when tasked with critical and potentially life threatening situations. That is why Raptor uses the proprietary "**Raptor-IMS**" (Incident Management System) in its tactical operations centers (TOCs). "Raptor-IMS" is a specially designed suite of software and applications originally deployed by US Department of Defense, designed to minimize the number of *events* an operator must observe and to separate potentially serious incidents from the normal *clutter* of day-to-day activities.

The intelligent and intuitive "Raptor-IMS" system accumulates millions of bits of data that is generated during *typical* activities at a specific location and establishes a normal *signature* for that location. Any event that occurs outside of this signature is compared to previously established *threat* signatures and if the signature matches one of these pre-defined conditions, or if it is outside of established boundaries, an *incident* is declared and the operator is notified in a number of ways, including visually and audibly.

"Raptor-IMS" automatically determines the threat level, recommends the appropriate action and undertakes the proper incident response solution, all within seconds. It notifies all concerned parties following a previously established notification/escalation list, and ensures that follow-through activities are underway on a minute-by-minute basis.

❿ Raptor Third-Party Protective Security Service Partners

In most routine cases, Raptor works with local authorities in the recovery of assets. However, there are situations where public safety resources may not be adequate to resolve the situation. For that reason, Raptor has teamed with a number of premier providers of protective security services (PSS), with specific focus on the energy sector, to provide a professional and highly effective first-response solution to the rescue of personnel and the recovery of high-value assets. Raptor PSS partners are employed in tactical situations where local law enforcement services are unavailable, or where civil law enforcement infrastructure is in disarray due to internal strife, or natural disasters. Raptor PSS partners are highly-trained professionals with years of military special operations and security experience. They operate with the full cooperation of local authorities, and are available to protect personnel and assets on a case-by-case, country-by-country basis. They are specially trained to deal with hostage situations, kidnappings and threats to personal safety, and are experienced in asset recovery. Raptor PSS partners can apply the appropriate response ranging from delicate negotiations, to the maximum application of force, if and when necessary. In addition, Raptor PSS partners can provide training and resources to equip client companies to deal with potentially hostile situations.

Raptor's relationships with premier third-party protective security service firms are important because it brings a number of support elements to the enterprise including:

- Investigative services pertaining to the theft or loss of assets, and working with local authorities, (or if necessary on their own) in recovery of property.
- Providing situational analysis support in interpreting the information collected by the TOC and determining potential threats to personnel or property.
- Providing rapid response (both measured and maximum force) in the rescue of personnel in the event of a hostage or kidnapping situation.
- Providing support and training to end users and TOC personnel in threat assessment and in coordinating a suitable response.
- Representing the Raptor services portfolio to existing and potential customers as needed.
- Working with Raptor in formulating an end-to-end package of services that can not only be provided to the end user, but also used to gain the endorsement and support of insurance underwriters.

Contact Information

Raptor provides end-to-end security technology solutions for homeland security, military, energy, maritime, transportation and enterprise applications. For more information about **Raptor** please visit our website at www.raptorglobalinc.com or contact:

James Shearer at: jims@raptorglobalinc.com or call 206-388-3743 or 253-380-2575.

Paul Brandenburg at: paulb@raptorglobalinc.com or call 360-540-2058.