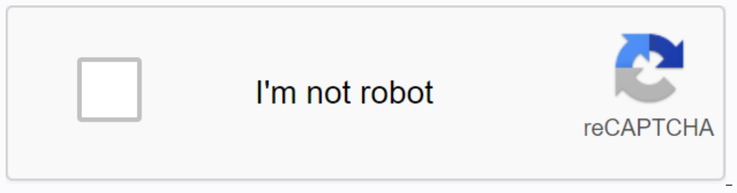

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Applications of radar pdf

When crime strikes in Dover, N.H., police officers can get help faster than ever. This is because the GPS equipment in the squad cars accurately shows the location of each unit. Dispatchers can see cruisers moving and responding incidents, says Michael Fenton, it department administrator. This has reduced our response times. The dispatcher now looks at the map, which shows the locations of all units and assigns the nearest available unit. The department also uses a geographic information system to analyze criminal trends and even to distribute the beats of police officers. Geographic Information Systems (GIS) and tools using global positioning system (GPS) satellite technology are no longer just for map makers, navigators and military analysts. These technologies are becoming strategic ingredients in a surprisingly diverse industry, from construction and truck to marketing and healthcare. We see a lot of growth as companies and government agencies mix geospatial stuff into other apps, says Dave Sonnen, an analyst at Framingham, Mass.-based IDC. Here are some examples of pioneering users of geospatial technologies: Loma Linda University Medical Center (LLUMC) in Loma Linda, Calif., benefits GPS devices and ArcGIS software from the Environmental Systems Research Institute Inc. (ESRI) for locating and dispatching ambulance and rescue helicopters, these for delaying likely real flow to the traumatic zonu centre — in some cases a downsizing response and transport sa half-time on a rescue few minutes. All rescuers in Southern California can access the LLUMC's Advanced Geographic Emergency Information System (AEGIS) online. Caterpillar Inc., a maker of mining, construction and agriculture equipment, offers its AccuGrade GPS technology, developed in-house, as a feature in its bulldozers, construction workers and other construction vehicles. AccuGrade tracks the location of the machine blade and tells it where to move forward based on pre-program coordinates. In the past, the operator's blade movement would have been based on measurements written on wooden shings in the ground. Improved accuracy translates into increased productivity on construction sites, says Tom Bucklar, North American region's head of machine control and guidance at Peoria, ILL.-based Caterpillar. GPS has increased productivity in construction [projects] by 40% or more, says Bucklar, and attributes much of this to the fact that operators now get accurate measurements faster. At dover police station, GIS software from Queues Enforth Development Inc. and MapInfo Corp. used to map criminal trends and beat schedules. Incident reports appear in real time on a map viewed by dispatchers, along with the locations and status of police vehicles. Later, the graphic analysis of calls – The times, locations and nature of incidents and other details – are used to predict criminal trends and plan patrols to help prevent crime and respond more quickly to incidents. There are about a dozen vendors of GIS applications, including MapInfo, ESRI, Cadcorp Ltd., Autodesk Inc., Oracle Corp. and Intergraph Corp. Many offer packages of vertical markets, such as route optimization software for trucks. There are also open source GIS products, such as the Geographic Resources Analysis Support System, developed by the U.S. Army Corps of Engineers. To add location and tracking options, GIS vendors can often partner with GPS receiver and antennas like Trimble Navigation Ltd. GIS applications can be used with other information such as demographics, crime statistics or traffic reports. For example, the LLUMC sends traffic and weather data to AEGIS, allowing ambulance dispatchers to quickly assess road conditions and alternate routes. It also receives live GPS data from fire and police services, hospitals and emergency medical providers so that it can identify the nearest responder in an emergency, as well as which hospital emergency rooms can accommodate more patients. We're probably the first big [health care] system that has brought together all those, says Dr. Jeff Grange, director of EMS at LLUMC. At Edens & Avant, a shopping center developer in Columbia, S.C., GIS manager David Beitzuses ESRI's Business Analyst GIS software and demographic data to map development projects and analyze competent developments, traffic patterns and real estate values. With GIS, we constantly analyse new cities and markets – not only to find out if the site is eligible, but also what a good rental mix would be and how it would blend with that area, says Beitz. Beitz is also starting to use GPS tools to map routes for helicopter tours with potential tenants. He detected key areas of the route with GPS coordinates loaded into the helicopter's navigation system. The pilot can then fly along the route without asking for directions, and the tour guide is better prepared, says Beitz. No Shrink-Wrapped Systems Interesting as they may be, these applications are not plug-and-play. Before the introduction of the geoprospative system, it is often necessary to resolve technical problems. One includes the potential for gaps in cellular network coverage. While GPS receivers can usually receive signals from GPS satellites - with occasional switches in tunnels or deep valleys - they may not always be able to cross back to their home office via mobile. The network may be going to be out for 30 minutes for an upgrade, notes Fenton of the Dover Police Department. Or there could be a problem with the cell tower. We have no control over that. Standard GPS technology is accurate at a few feet, but may not be precise enough to Used. For example, GreenLeaf, a food distributor in the San Francisco Bay Area, uses esri arclogistics route mapping software and GPS devices on its trucks to help it plan routes. We can see how the driver actually led the way and went back and made adjustments, says Frank Ballentine, vice president and general manager of GreenLeaf, noting that the system also allows the company to tell customers where their deliveries are at any time. The system generally works smoothly, but can be confusing when delivery sites are close together. That's pretty accurate, but if there are two or three restaurants in one block, it won't show supplies to everyone, says Ballentine. With more sophisticated – and expensive – correction technology, systems can be accurate up to one metre. Even greater precision can be achieved when tracking movements within a limited space – such as a construction site or port (see story on the left). Another potential challenge is integration. John Handler, President of Truck Dispatching Innovations Inc. in Chicago, he says, organizations often have to do some integration work to get GIS and GPS collaboration tools or to connect them to other apps that need to send or receive geoprogrammed data. This is not the solution to the black box, notes Handler. Sometimes it's hard when you get two GPS coordinates. IDC's Sonnen notes that map data is often not convering with GPS receiver data. With more than 100 national mapping agencies and private suppliers producing maps of everything from city streets to waterways, there is a great variety in image resolution granularity. They mash each other together and then decide how accurate it is, says Sonnen. Another challenge is that there are different forms for GIS data, but this problem is slowly being solved. Many, though not all, sellers now support Geography Markup Language (GML), developed by the Open Geospatial Consortium, says James Brayshaw, director of sales and market development at Ordnance Survey, a national mapping agency in the UK. He is convinced that the adoption of GML will help to address a number of problems with data integration. If the data isn't listed in a common format, then you need to combine them all and put it in a format to work in my app, says Brayshaw. Some issues of data integration and coordination are elusive, but there is still a lot of information that is not in GML format. In addition to developing GML between GIS applications, the open geospatial consortium is working on several other interoperability standards. While the GIS software market is generally growing only 5% or 6% a year, says Sonnen, the market for GIS and GPS technologies is built into other applications such as insurance or tools for managing economic resources, is facing a much higher growth rate – around 25%. The use of GPS and GIS for consumers has also increased thanks to free services such as Google Earth, which have increased public awareness of geospatial applications. Most major system integrators now have Google Earth practices, says Sonnen. Companies want to monitor their customers, their facilities and assets, and their transportation routes. Hildreth is a Walthamsian, mass writer specializing in IT technology companies. You can contact her on Sue.Hildreth@comcast.net. We don't say we should think of speed limits as proposals for a ballpark, but we do know that pushing into an accelerator is a little more than usual on a flat, empty stretch of highway. The store is usually expensive. That's where the radar detector comes in. This is a device that is usually mounted on your windshield with sucked cups, inspect the road ahead and alert you if it detects a radar or laser. You can usually slow down in time, but remember that speed speed is always a risk, unless you somehow figure out how to cover your car with an invisible charcoal. The best radar detector currently on the market is the Escort Max 360. Our examiners were driving with dozens of radar detectors attached to their windshield in all conditions. We choose Escort's Max 360 because it is simple, reliable and affordable. His proposal is invincible, too. See more Best Surveillance Cameras Best head-up displays Best electric cars Best security cameras Thousands of hours spent controlling radar detectors have taught us that there are good alternatives to escort Max 360. We selected the best runner-up, the best detector, the best mid-range detector and the best affordable detector, among other choices. Let our quick checker team help you find the radar detector that best fits your driving mode and budget. Best Radar Detectors for 2020 Best: Escort Max 360 Runner-up: Uniden R7 Most Accessible Radar Detector: Whistler CR70 Best Mid-Range Radar Detector: Escort Passport 9500iX Best Radar Detector: Radenso Pro M What is a Radar Detector? It's an in-car device like a portable GPS or surveillance camera that's designed specifically to alert you to the presence of the police and use the speed detection hardware. Radar rifles or devices used by the police to measure the driver's distance speed operate exclusively on certain radio waves, and radar detectors warn you of the presence of these radio waves in relation to their closest range. What to know before you start shopping Choosing a radar detector can be a difficult decision because they are not exactly cheap, but there is a lot on the market Models. When it comes to radar detectors, detectors, A strong example you get what you pay in terms of functionality and accuracy. Cheaper models are less accurate and more submissable to false readings, and more expensive and top-range radar detectors can offer direction indicators, GPS functionality and smart technologies that can identify false radar signals. False signals can come from other sensory systems that use similar radio wave-based detection, such as automatic sliding doors at a local supermarket or even blind point detection systems on some newer vehicles. To make it easier for you to catch a radar detector, today we've made a list of some of the best radar detectors on sale. Useful tips Here are some common radar detector terms you may not know: DSP: Shorter for digital signal processing, which uses a microchip to automatically identify and prioritize radar bands commonly used by law enforcement. K-Band: Common frequency for handheld radar rifles operating between 24.05 and 24.25GHz. Ka-Band: The most popular frequency used today by most police generally operates between 33.4 and 36.0GHz. Laser: To catch speeders, a lot of police made the transition from radar to laser. While expensive, laser rifles are much faster and more accurate in measuring the location and speed of the vehicle. Laser defuzer: Technology that detects police radars and obstructs a signal emitted by police laser guns. Note that laser jammers are illegal in some countries. X-Band: Catch all the radar belt used by everything from traffic sensors to law enforcement to automatic supermarket doors. It runs from 10.5 to 10.55GHz and is one of the easiest detection bands. Best: Escort Max 360 Andrew Hard/Digital Trends Why you should buy this: This is the most accurate and

feature-packed radar detector available. Drivers who want the best possible ticket protection. How much it will cost: $500 Why we chose escort max 360: Although there is a newer version of the Escort Max 360, called Escort Max 360c, we still stick with the Max 360 as it can be purchased for about $500 from certain dealers. Prices may have come cheap, but the Max 360 continues to be our choice and for good reason. Simply, the updated Max 360c doesn't really improve on the functionality of the previous model too important to be worth its premium price. The original Max 360 was already good to start with. There are almost all the features available on the radar today, including double antennas, threat-pointing arrows, and smartphone compatibility to help you network with other speed gauges in your area. At the heart of the device lies a powerful digital signal processor (DSP), which automatically uses a microchip to automatically recognize and prioritize radar belts, which are usually used by law enforcement, ensuring that Random signals from automatic doors and blind point detection systems cancel your transport. In addition, the Max 360 boasts a gps self-monitoring feature that reduces false alerts by recording frivolous emissions and ignoring the next time you drive past. Escort is so confident in your abilities that you will even pay for your first ticket if you are listed during use. That might allow you to stretch your legs a little more. Another thing that separates max 360 is community-based protection. Using Bluetooth to connect to smartphones, it gives users access to a community-based ticket protection program called Escort Live. Escort Live is a free app for Android and Apple devices that notifies you of nearby alerts, red light camera locations, local speed limit information, and even your speed violations. Read our full Escort Max 360 review Runner-Up: Uniden R7 Why You Should Buy This: This is a powerful detector that is quickly paid who's it for: Bikers who like to drive fast without thinking twice. How much it will cost: $427 Why we chose Uniden R7: Inspiration for Valentine One V1, Uniden R7 exits the package because its dual antennas tell you exactly which direction the radar signal comes from. Its color screen shows you whether the threat comes from behind or from the page, and determines what type of signal it is picking, which can make a big difference. You also see the strength of the signal, so you know if it's too late or if you have time to slow down. The R7 also remembers and turns off false alarms, meaning you don't have to worry about being turned off by the local bank's alarm system. Uniden R7 is smart, too. It is preloaded with the location of red light and speed cameras, and the alarm sounds when you approach either. Free firmware updates ensure that it stays up to date by sticking to the infrastructure. It's not quite as powerful as the Escort Max 360, and it's certainly not cheap, but it's a skilled detector that works well as an all-encompassing one. Best affordable radar detector: Whistler Z-15R Why buy this: It's an excellent radar detector at an even better price. Who's it for: lead on budget. How much it will cost: $70 Why we chose Whistler Z-15R: Whistler Z-15R won't break the bank, but it still packs a serious blow. Neat and compact, it pins to your windshield using sucker cups, like almost all radar detectors, and has an easy-to-read screen that clearly displays data even in bright sunlight. The screen is broken down into color code sections for different bands used by law enforcement, so you immediately know where you're against. Whistler's city method came in handy. In densely populated areas, storage alarms and other signals can sometimes trigger a radar detector. Turning on city mode reduces these false alarms. On especially in rural areas, signals almost always come from law enforcement; The cactus won't turn on the detector. Best mid-range radar detector: Escort Passport 9500iX Why you would buy this: Escort Passport 9500iX warns you of speed traps before the police officers see you. Speedsters who often travel in remote areas. How much it will cost: $234 Why we chose escort passport 9500iX: Although its name indicates that the old Ford is equipped with a BMW all-wheel drive system, the Escort Passport 9500iX is actually a radar detector adapted for long-range detection. It is suitable for remote areas such as the Nevada desert or the Great Plains, as it detects speed traps far from far away. When it shuts down, you know there's a cop around. An early iX alert gives you enough time to slow down to a more permissible speed, and its easy-to-read display tells you exactly how much speed you need to clear. IX's multiple sensors detects the X-band, K-band and SuperWide Ka-band, even if the policeman uses pesky instant-on technology. It's smart, too. Intelligent autoLearn technology relies on GPS and frequency data to reject false alarms and learn their location so it doesn't go out the next time you drive past them. There is also GPS technology that reduces false alarms caused by in-vehicle technology, such as automatic door openers. Users can sync iX with the Escort Live app to receive alerts about speed traps, red light cameras, and other real-time traffic threats. The app is compatible with Android and Apple devices and is free. Best radar detector: Radenso Pro M Why you should buy this: The Pro M is a great choice because it's easy to start with this radar detector. The product also blocks false alerts and has an impressive palette. Who's in: Drivers are looking for a device that provides superior radar protection in a wash-like, attractive package. How much it will cost: $450 Why we chose Radenso Pro M: When it comes to radar detectors, you may not think much about appearance, but that may change with radenso Pro M. Unlike some others on the market, the Pro M is one of the radar detectors with the most elegant design. Of course, it does much more than look good on your dashboard. With a strong digital processor, pro M acts as a radio signal circuit breaker, using false warnings on the circuit to make sure that every bell and whistleblower you hear comes from a legitimate law enforcement source. It's a built-in GPS feature that remembers false alerts so you don't have to hear them twice. The Pro M has more than 6,000 red lights and speed cameras in memory. This radar detector can even connect to your computer to free download the latest updates to get new locations. updated locations on a monthly basis. Radenso also offers a one-year warranty on the pro M. One-year warranty is standard for many radar detectors, and radenso goes a step further. The company is so confident in The Pro M that it offers a one-year warranty without tickets. That means Radenso will pay the bill for your laser-detected speeding ticket! Of course, in order to qualify, you need to meet some conditions like not going more than 25 mph over the speed limit and not driving between the vi cani go. Editors' recommendations