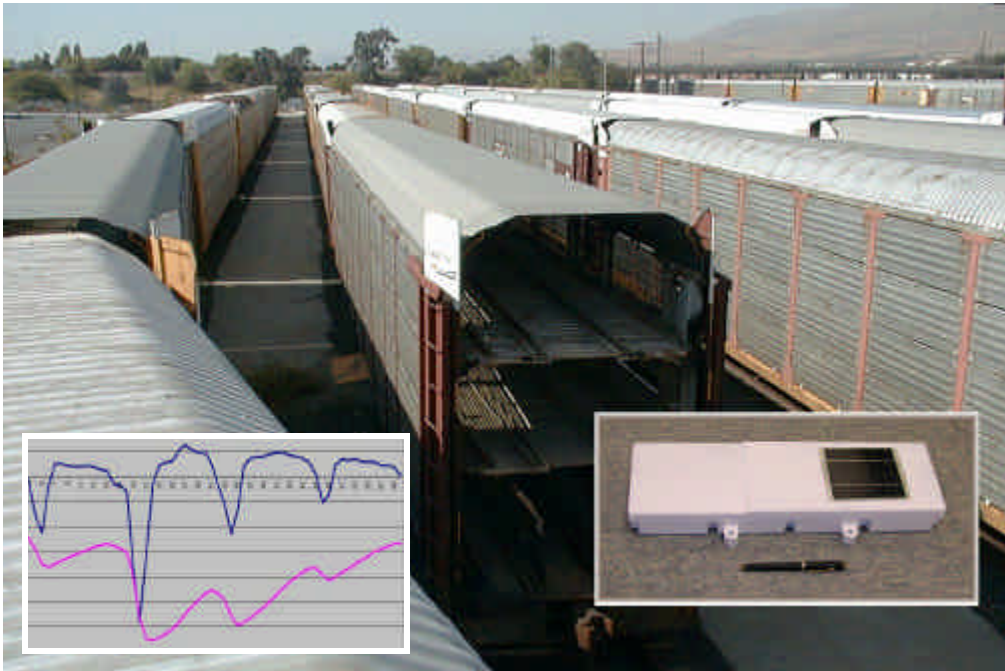


HealthTrak™ - Wireless Railcar Monitoring



- Very low power satellite communicator
- Full Logistics- location, speed, direction, ETA, etc.
- Always-On™ instant poll response
- True two-way communication
- Car Health and Track Anomalies
- Impacts- 3-axis, settable trigger levels
- Cushioning Unit performance
- Cargo Sensing - load weight
- Solar powered for stand-alone operation
- Complete coverage throughout North & Central America
- Fully Web-Enabled Access

THE APPLICATION

Where is your rail car? Has an over-speed coupling caused damage? Has it been humped? Are the cushioning units functioning properly? What is its net load weight? The temperature of your tank car? When was it unloaded at your customer's facility? What is the cycle time? Like to match empty equipment to requested load locations? Measure Ride Quality? Refine ETA's during shipment? Or define your own logistical needs?

HealthTrak™ collects information about individual railcars and relays it in real time, via satellite, to our full-service Web Server. The result is the most comprehensive rail fleet management tool available.

At this moment, StarTrak is monitoring & tracking hundreds of railcars around the globe. We "join" every satellite message with complete industry information via waybill, CLM (Car Location Messages) and/or Train II. StarTrak has made wireless monitoring of rail cars useful, affordable, and available via the Web.

FROM YOUR RAILCAR...

The HealthTrak™ unit is mounted on your rail car. It includes a communicator, batteries, solar panel (for rechargeable versions), and internal sensors (3-axis accelerometer for impact monitoring, temperature or pressure sensors for tank cars, etc.). Alarms are sent to you in seconds via email, pager or fax. Trigger levels and reporting times are settable over the link and HealthTrak™ can be configured for virtually all rail car types (auto rack, box, tank, gondola, reefer, etc.).

...VIA THE WEB...

All StarTrak solutions are fully Web-enabled. All information is available from any PC (or pager or cell phone) instantly. All you need is a browser - no special software to download or maintain. Rail information (CLM, Train II, waybill, etc.) is also available from the StarTrak server.

...TO YOUR DESK

Custom reports? Interface to legacy systems? No problem. Our in-house software team can create just about any report you need quickly and economically - all fully Web-enabled!

WHO CAN BENEFIT?

This Web-Enabled fleet management system is available for real-time use by all railroad personnel, shippers, private car owners, lessors, and customers as appropriate. StarTrak provides full Web-access to all required industry data.

ALWAYS-ON™ COMMUNICATIONS

Poll your asset any time. Get a response in minutes every time. No "dead spots" because our geosynchronous satellite communicator offers truly complete coverage throughout North and Central America (global solutions also available). It also has the lowest power budget of any wireless communicator available.

Car No.	Car Type	Location	Speed	Direction	ETA	Temp	Pressure	Impact	Load
1000000000	Box	1000000000	100	North	10/10/07	100	100	100	100
1000000001	Box	1000000001	100	North	10/10/07	100	100	100	100
1000000002	Box	1000000002	100	North	10/10/07	100	100	100	100
1000000003	Box	1000000003	100	North	10/10/07	100	100	100	100
1000000004	Box	1000000004	100	North	10/10/07	100	100	100	100
1000000005	Box	1000000005	100	North	10/10/07	100	100	100	100
1000000006	Box	1000000006	100	North	10/10/07	100	100	100	100
1000000007	Box	1000000007	100	North	10/10/07	100	100	100	100
1000000008	Box	1000000008	100	North	10/10/07	100	100	100	100
1000000009	Box	1000000009	100	North	10/10/07	100	100	100	100
1000000010	Box	1000000010	100	North	10/10/07	100	100	100	100

ALARM ROUTING

You specify important events (impacts, begin unloading, arrive destination, pressure or temperature alarms, etc.) When the event occurs, an alarm message can be sent immediately anywhere you specify. Email to dispatch, fax to the loading facility, page to a field rep. Links to your legacy system are fully supported.

COMPLETE RAIL SOLUTIONS

HealthTrak™ models are available for virtually any type of rail car including: Auto Racks, Box, Auto parts, Tank, Reefer, Gondolas, Road Railers, Covered Hoppers, Intermodal & Container Cars, Locomotives.

Rail Applications

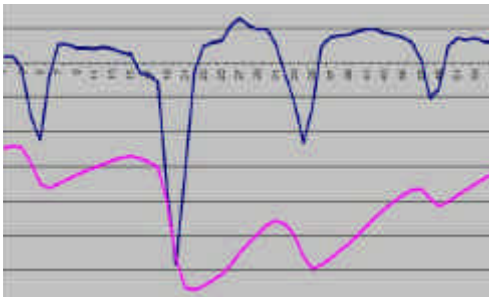
Ride quality, Track anomalies, Over-speed impacts, Damage prevention, Temp/pressure, Door open/security, Preventative Maintenance, Logistical Fleet Management, Preventative Maintenance, Load Measurement, Refrigerated car control.

HealthTrak™ offers complete logistics with **over-speed impact** and lading monitoring by virtue of its internal 3-axis accelerometers. HealthTrak can even deliver a complete impact waveform to your desk, seconds after an event.

TankTrak™ is optimized for tank cars of every description and includes temperature and pressure as well as optional load measurement.

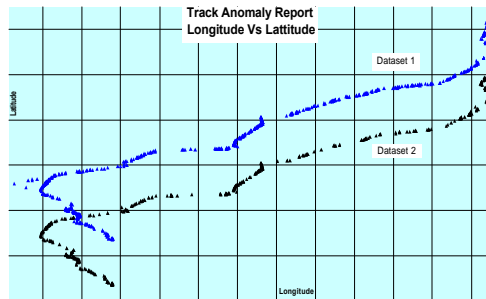
LoadWeigh™ adds accurate load measurement from your rail asset in real time. Load weights within 3% accuracy are available in minutes right from your desk. Now you know precisely when your tank car is unloaded, or the true inventory of your supply chain pipeline.

ReeferTrak™ offers the only wireless full-authority monitoring and control for any perishable transport (rail or truck) with **complete** coverage in North America.



RIDE QUALITY... ALSO IN REAL TIME

StarTrak has been the world leader in ride-quality monitoring for Rail and other transport applications since 1993. Above left, a complete waveform for a longitudinal impact identifies location and circumstances of a car handling event. The g vs. delta V plot can be brought back over the link from the car for analysis. Above right, a Track Anomaly report helps identify appropriate locations to focus maintenance-of-way efforts. Note the excellent alignment of the two data sets (captured across multiple trips). Truck hunting, ride quality, histograms, and other detailed measurements are also available in real time via your browser over the wireless link.



SPECIFICATIONS

Communicator: Geosynchronous satellite or cellular telephone network

Event response time: 30 sec. typical

Poll Response time: 30 seconds to 3 minutes (user settable)

Logistics Information: Latitude, longitude, speed, direction

Impact Monitoring: 3 Axis, -6 to +6 g, with 0.1 g resolution; delta velocity resolution to 0.1 mph; waveform transmission (optional). All trigger levels remotely settable over communicator link.

Optional Sensors: LoadWeigh™, Track Debris, pressure, temperature, load, level, flow, etc.

Additional I/O: 4 analog, 4 digital, bus expandable

Mechanical: 22 X 9 X 2 inches (other form factors available)

Optional Features: Ride Quality histogram, waveform transmission, truck hunting, wheel quality, cushioning unit quality, track anomaly.

THE STARTRAK COMMITMENT

StarTrak has been providing wireless solutions since 1993. We've offered Internet-based data systems since 1996 across a variety of applications. We grew up in the railroad industry, so we know rugged environments. StarTrak has always been a total solutions provider.

Mobile (all with full logistics)

Railcars, Locomotives, Tank Trucks, Refrigerated Transport (truck, rail, and intermodal), Barges (including draft and load), Intermodal (chassis, gensets, tugs and containers). LoadWeigh™ delivers accurate (3%) load measurement from rail assets in seconds.

Fixed Site

Petroleum, Tank Level, Pipeline, Flow Meters, Compressors, Generators, Light Industrial, Mod Bus.

Contact a StarTrak Applications Engineer today!

HealthTrak 31



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