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Introducing IDP-800: Managing Your Un-Powered Mobile Assets

Features, applications and use cases for new IsatData Pro satellite terminal designed for tracking trailers, containers and other mobile assets.

Anu Sood - Global Channel Marketing Manager
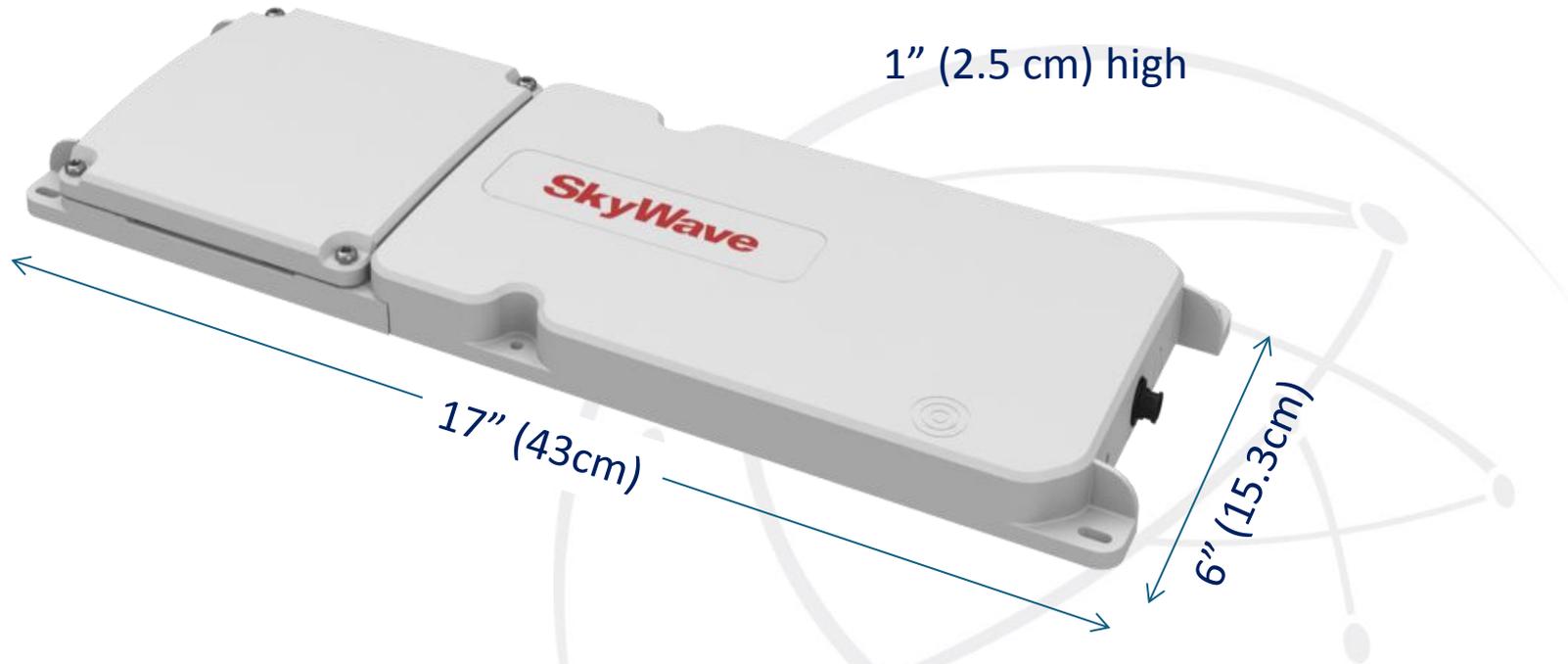SkyWave Mobile Communications

Agenda

- Introduction of IDP-800

- Target Markets

- Differentiators

  - Communication

  - Features

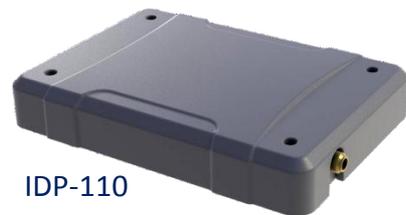 - Battery and Power

  - Installation

- Customer Use Cases

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Introducing IDP-800

First low-profile IsatData Pro terminal with integrated battery compartment

1" (2.5 cm) high

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17" (43cm)

6" (15.3cm)

Providing visibility of mobile assets

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Part of Integrated Portfolio

IDP-110

Modem

IDP-690

Maritime Terminal

IDP-680

Land Terminal

IDP-800

Integrated Battery Terminal

IDP-780

Sat-Cell Terminal

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IDP-800: Target Markets

Trailers & Containers

Fishing Vessels, Barges

Heavy Equipment, Vehicles

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IDP-800: Differentiators

1. **Communication**: Global coverage, two-way satellite via Inmarsat

2. **Terminal Features**:

- Onboard GPS,

- Accelerometer - start/stop detection

- RS-232, 3 Analog/Digital I/Os – for sensors

3. **Power**: AA batteries – standalone operation, rechargeable/non-rechargeable, field replaceable
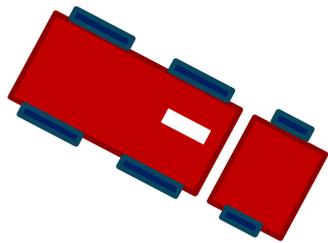
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Communication: IsatData Pro
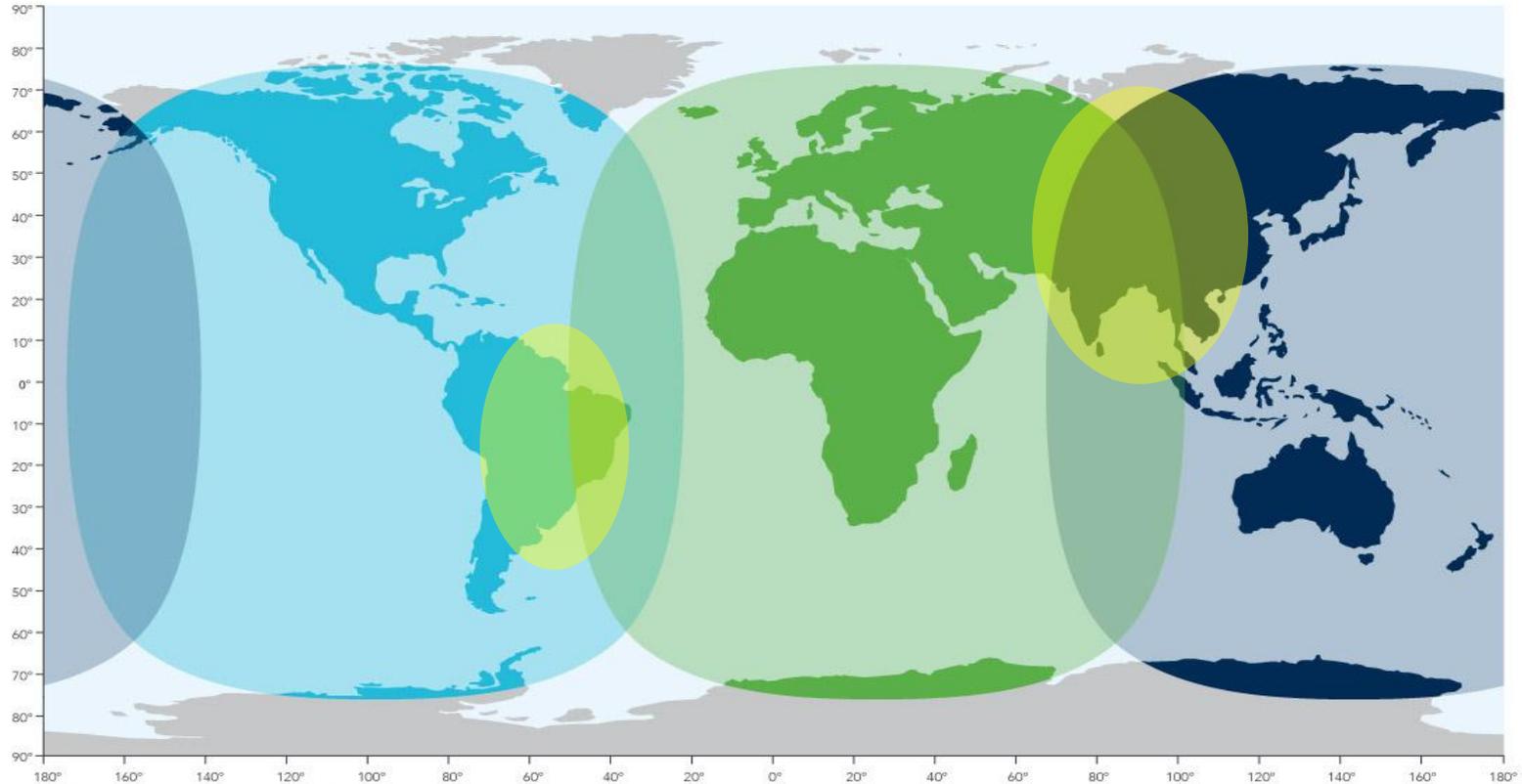
- Two-way messaging
- To-mobile ≤ 10kBytes
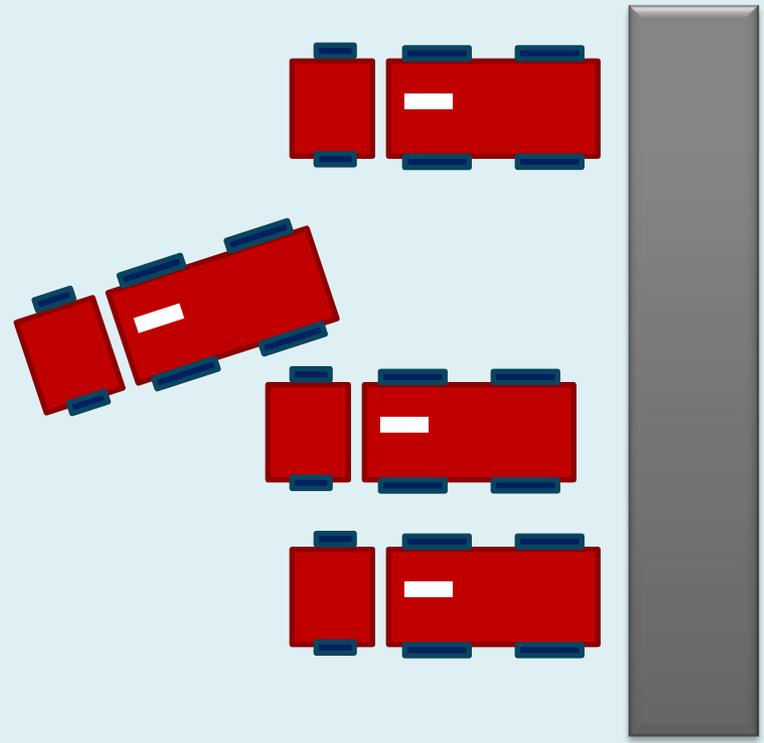- From-mobile ≤ 6.4kBytes

- Fast: < 15 sec for 100 bytes
        < 45 sec for 1,000 bytes
- Broadcast, multicast

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Features: Onboard Geofencing

Transmit once per day when in yard
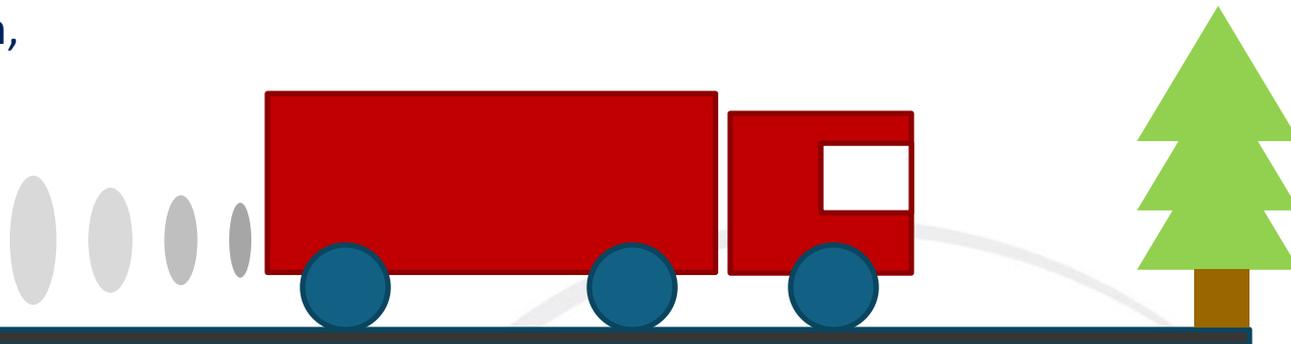
Transmit once every hour when moving

Support for 128 geofences including route geofences

Different behaviors whether in or out of geofence
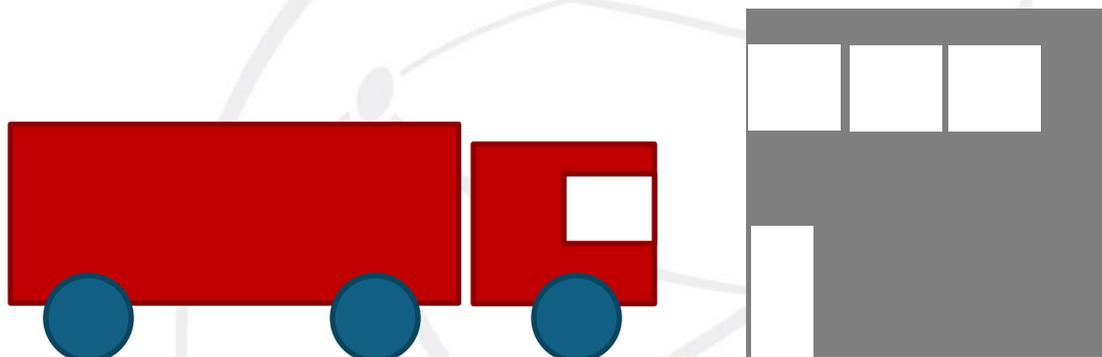
Features: Power Driven Behavior

Vehicle Power:
When vehicle powered on, report every hour

Battery Power:
When vehicle powered off, report once per day

Behave differently whether using vehicle power or battery

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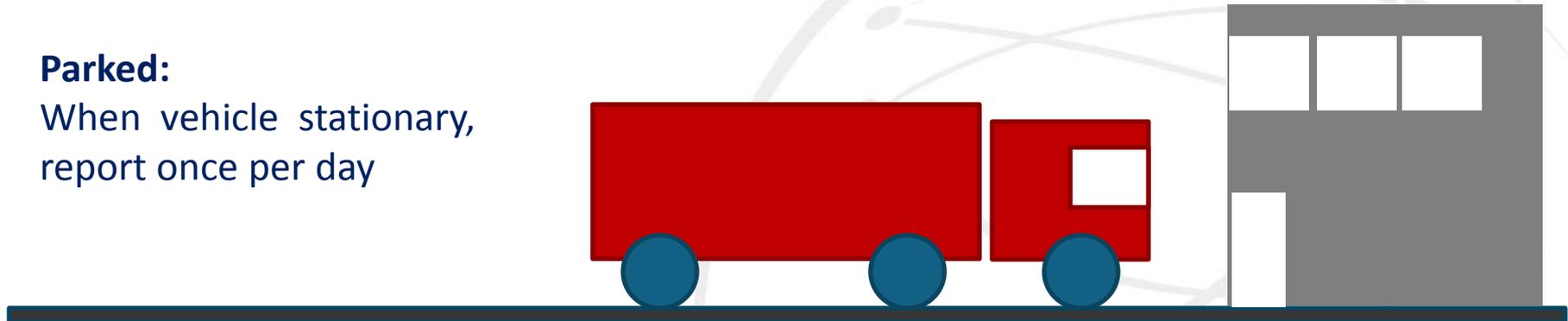# Features: Start/Stop Behavior

Moving:
When vehicle travelling, report every 30 minutes

Parked:
When vehicle stationary, report once per day

Behave differently whether moving or stationary

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Features: Protecting Cargo

Door Opening:
Send special message when door opened outside of approved areas

Theft detection

Features: Driver Security

Power Cut:
Send special message external power is cut.

Jamming:
Report when GPS jammer detected

Protecting cargo, drivers in high risk situations

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Features: Safety & Communication

Approaching dock
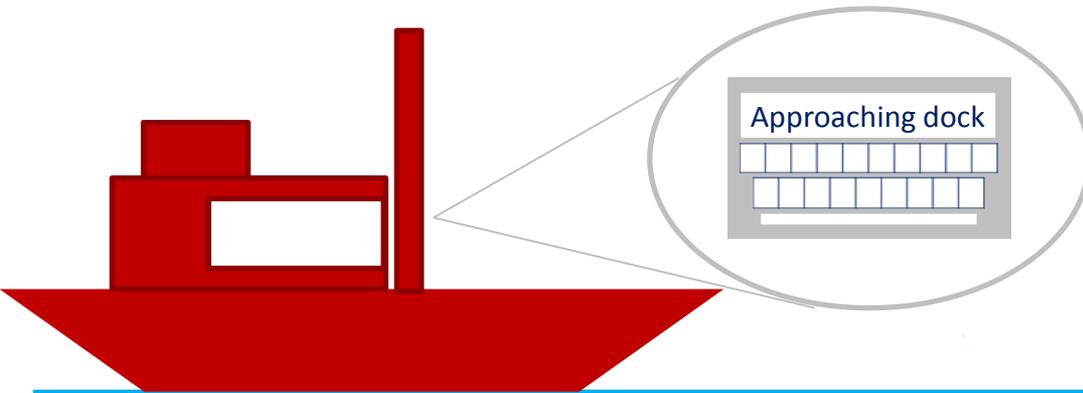
Communication:
Use terminal (MDT) for position reports and text-messaging

Tracking & Communication

Features: Maritime Safety

Safety:
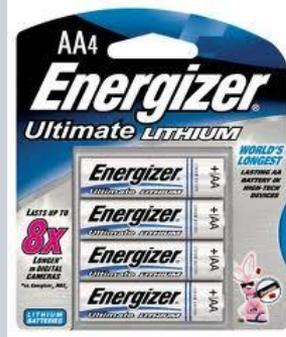Send position every 5 minutes when panic button is pressed

Beyond position reports

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Power Options

Battery compartment for 12-AA batteries

Batteries replaceable by user

Parameters	Non-Rechargeable	Rechargeable
Brand/Type	Energizer Ultimate Lithium	Tenergy: Low Self Discharge (LSD) recommended. Common technology
Quantity	12-AA	12-AA
Chemistry Type	LiFeS2 (Lithium Iron Disulfide)	NiMH (Nickel Metal Hydride)
Capacity	~3000 mAH	>2,000 mAH
Temp Range	-40°C to +60°C	-20°C to +60°C
Target Life	3 years at 1 report/day	30 days at 15 minute reporting

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Installation Options

RIVET HOLES

TETHER STRAP

17.0"

PAINTED STEEL BRACKET
WITH VHB TAPE

1.1"

6.0"

TETHER STRAP
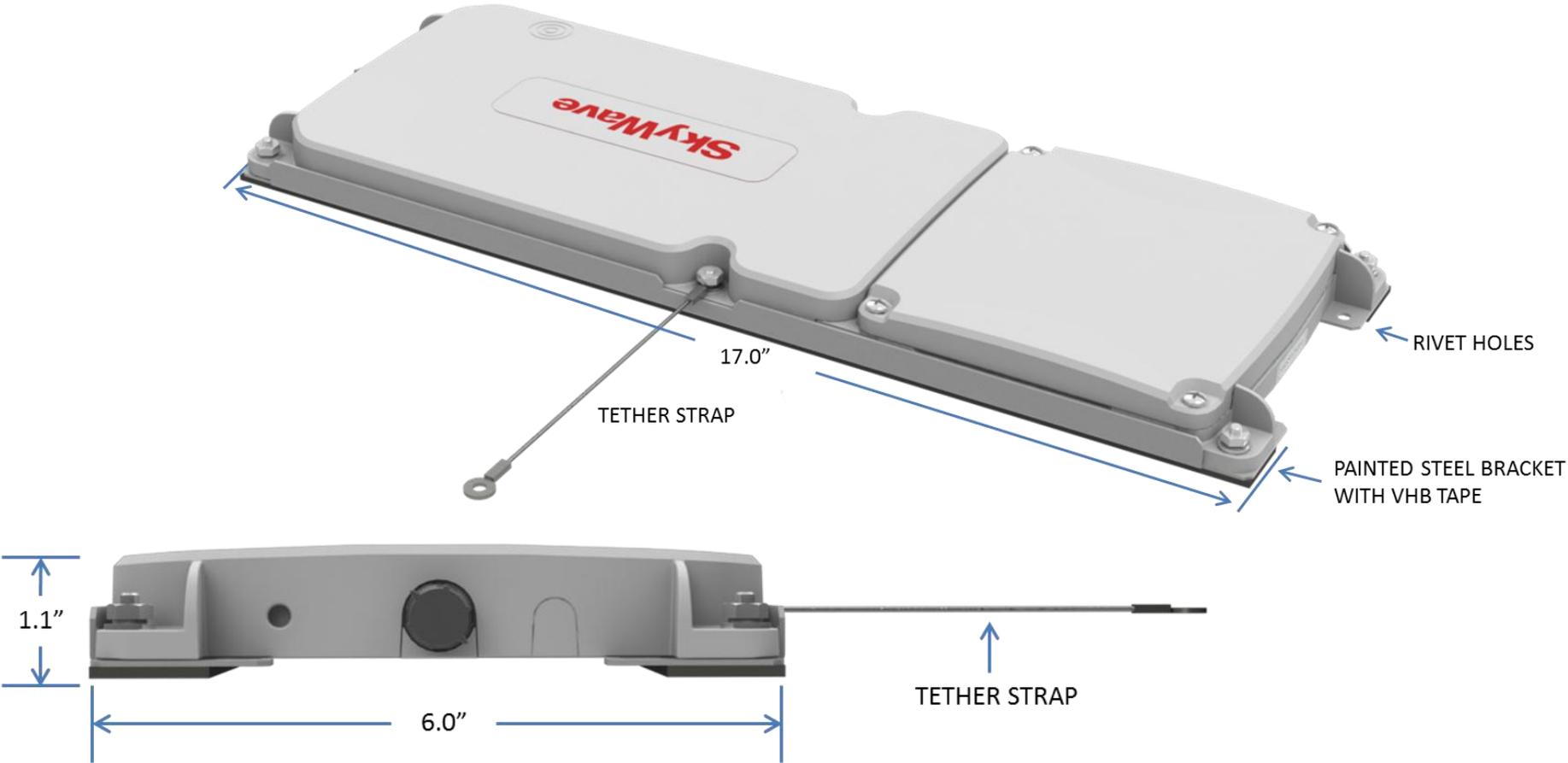
Height with bracket is 1.1"/2.8 cm – Very Slim

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Remote Antenna Options

Remote Standard Antenna

Remote Low Elevation Antenna

For installations where only antenna is exposed

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Use Example: Trailer Tracking
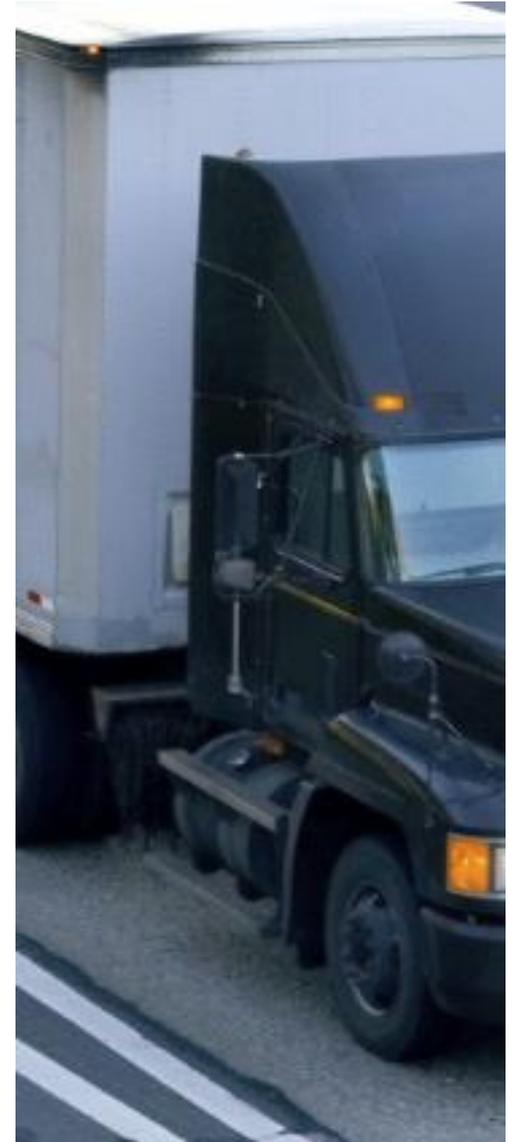
Customer Pain

- Provide greater reliability and accountability to cargo owners
- Improve efficiency of operation, locate missing containers, redeploy trailers – logistics/dispatch

Solution

- Low profile satellite terminal allows to pinpoint exact location, speed, and heading of trailer. Can poll location on demand.

Benefits

- Can notify transport customers when shipments were scheduled to be delivered or has reached destination
- Can see how long trailer has been at customer site – retrieval and putting trailer back in service
- Can monitor driving habits to ensure safety of driver
- Solution supports both container/trailer tracking and in-cab communication

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Use Example: Rail Car Tracking

Customer Pain

- Electricity producer needed a way to track rail cars in areas without RFID readers (blind spots).

- Adding more RFIDs to cover entire rail track network was cost prohibitive. Cellular was not available in all areas and drained batteries too quickly

Solution

- Low profile satellite terminal with two-way communication, integrated battery allowed utility to pinpoint location, speed, heading of cars

Benefits

- Can view location of rail cars, regardless of location of RFID readers

- Locate idle cars and get them back on the line to move product and increase company profitability

- Can track rail cars for multiple-years on a single battery

- Can connect sensors like temperature or cargo sensors for more detailed visibility of what is happening in and around the rail car

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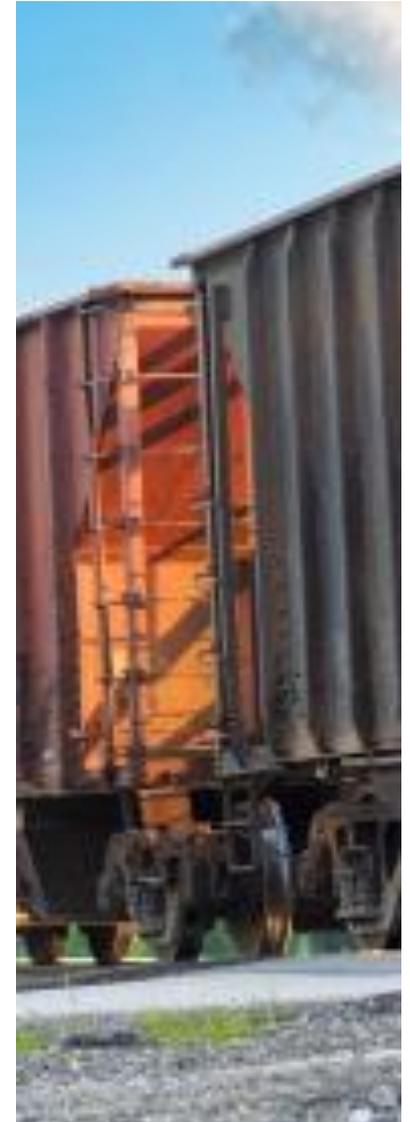
Schedule, Availability, Tools

- Starter kits available March 2013

- Pricing: Contact your account manager

- IDP-800 tools in **NEW** Partner Center

  - IDP-800 datasheet

  - Product images

- Battery life calculator

Configuration

Terminal Type	IDP-800
Wakeup Interval	60 minutes ▾
Operating Mode	Mobile ▾
Battery Type	Non-rechargeable (Energizer L91-9V) ▾
Temperature for derating (℃):	40 ▾

Lua profile	*Exception handling only*
Message size	*Short messages (<25 bytes)*
Blockage	*Never Blocked*

Daily Activity	Count	Contribution
Scheduled reports with GPS	1	
Unscheduled reports with GPS	0	
All reports without GPS	0	
Additional GPS fixes	0	
All other activity	N/A	

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Summary: Why Use IDP-800

- Uses **Inmarsat** – lifetime beyond other satellite constellations

- **Two-way communication** – can change reporting frequency depending on circumstances anytime, etc.

- **Battery options** including rechargeable with vehicle power

- **Accelerometer** to detect start/stop – transmit only when moving to save on airtime

- **Peripheral ports** – panic button, temp sensor, text messaging terminal, power cut detection etc.

- **Slim profile** for use on trailers and containers.

IDP-800 – The product for managing mobile assets

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www.skywave.com