

# Bringing Iridium Down to Earth

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Iridium Satellite Case Studies  
Updated November 2022





# M/V Simon Stevin Uses Iridium GMDSS



**IRIDIUM CONNECTED® BY**  
Lars Thrane LT-3100S

**IRIDIUM SERVICE**  
Iridium® GMDSS

**PARTNER**  
Lars Thrane

## THE CHALLENGE

The crew of the M/V Simon Stevin required a quick, effective, and simple communication method for emergencies, but the existing service did not provide truly global coverage, with only Sea Areas 1-3 covered.

## THE SOLUTION

Iridium GMDSS, via the Lars Thrane LT-3100S terminal, offered the crew a cost-effective safety solution fitted for Sea Area A4 compliance. It also allowed automatic distress calls to the RCC, enabling the crew to perform fewer manual actions and avoid wasting time in a critical moment.



# Iridium® Enables Cost-Effective Sustainable Ocean Research



**IRIDIUM CONNECTED® BY**  
Thales VesseLINK™ 700

**IRIDIUM SERVICE**  
Iridium Certus®

**PARTNER**  
Applied Satellite Technology (AST),  
XOCEAN

## THE CHALLENGE

Traditional seafloor-mapping methods have become obsolete and incapable of keeping up with the demands of the global ocean economy.

## THE SOLUTION

XOCEAN's fleet of unmanned surface vessels (USVs) – equipped with Iridium Connected Thales VesseLINK terminals – collects data for agencies and companies.



# Short Burst Data<sup>®</sup> Aids Haiti Earthquake Relief



**IRIDIUM CONNECTED<sup>®</sup> BY**  
ZOLEO

**IRIDIUM SERVICE**  
Iridium Short Burst Data<sup>®</sup> (SBD<sup>®</sup>)

**PARTNER**  
Roadpost

## THE CHALLENGE

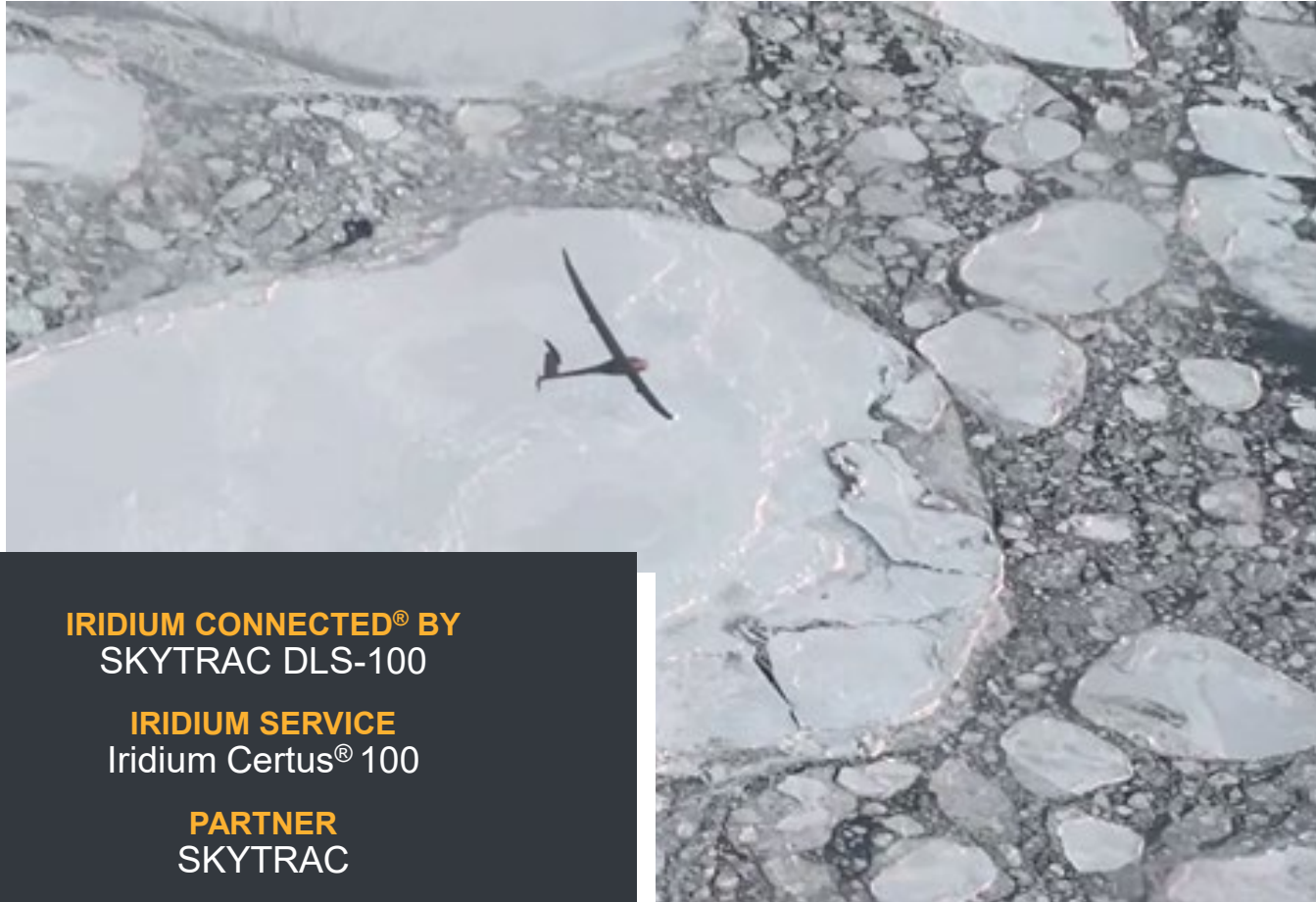
The Haiti earthquake devastated the regional terrestrial communications networks. A relief organization required reliable means of communication for recovery operations.

## THE SOLUTION

The Iridium Connected ZOLEO Satellite Communicator enabled effective, affordable, and user-friendly communication. Using ZOLEO's two-way messaging function allowed the Information Technology Disaster Resource Center to: coordinate food, medicine, and supply needs; monitor team members' physical and mental health, and connect with loved ones at home.



# Record-Breaking NASA UAV Mission Made Possible With Iridium Certus® 100



**IRIDIUM CONNECTED® BY**  
SKYTRAC DLS-100

**IRIDIUM SERVICE**  
Iridium Certus® 100

**PARTNER**  
SKYTRAC

## THE CHALLENGE

An Unmanned Aerial Vehicle (UAV) used to perform an essential NASA environmental mission required reliable communications capabilities to succeed in the harsh, remote Arctic.

## THE SOLUTION

By leveraging Iridium's global connectivity and low latency, SKYTRAC's DLS-100 midband transceiver provided Platform Aerospace a reliable and cutting-edge solution for real-time C2, telemetry streaming and GPS connectivity to ensure the safe execution of the scientific expedition.



# Preet Chandi Sends Updates Throughout Historic South Pole Trek



**IRIDIUM CONNECTED® BY**  
Iridium Extreme®, Iridium GO!®

**IRIDIUM SERVICE**  
Iridium Telephony

**PARTNER**  
Global Telesat Communications (GTC)

## THE CHALLENGE

Preet Chandi needed to remain connected with family, friends, and social media followers while attempting a solo South Pole trek. The goal: Complete the 700-mile journey from Hercules Inlet to the South Pole on her own in 45 days, pulling all her provisions and supplies behind her in a sled.

## THE SOLUTION

Each day of her journey, Preet used an Iridium Extreme satellite phone to call her support team and partner to provide her location and condition, and to make audio blog entries. She also carried an Iridium GO!, which allowed her to send photos and served as a secondary means of voice communication if needed.



# Iridium Edge<sup>®</sup> Solar Keeps Arctic Expedition Connected



**THE CHALLENGE**

With most communication providers unable to deliver full coverage to remote areas, adventurers such as world-renowned mariner Jeff Allen are looking for ways to stay connected on explorations that take them beyond traditional cellular range.

**THE SOLUTION**

One of Jeff's recent expeditions took him and his team on a course through the Arctic, where only Iridium could provide coverage and give him the connectivity needed to stay in touch. Using the Iridium Edge Solar, his followers could track his team's expedition in real time, from start to finish.

**IRIDIUM CONNECTED<sup>®</sup> BY**  
Iridium Edge<sup>®</sup> Solar, Iridium GO!<sup>®</sup>

**IRIDIUM SERVICE**  
Iridium Cloud Connect, Iridium Circuit Switched Data (CSD), Iridium Short Burst Data<sup>®</sup> (SBD<sup>®</sup>)

**PARTNER**  
Global Telesat Communications (GTC)



# Iridium Helps Predict Floods in Coastal Areas of Africa



**IRIDIUM CONNECTED® BY**  
Ground Control RockBLOCK,  
Iridium 9603 Module

**IRIDIUM SERVICE**  
Iridium Short Burst Data® (SBD®)

**PARTNER**  
Ground Control, Obscape

## THE CHALLENGE

The terrain and tropical weather of South Africa's eThekweni Municipality (including city of Durban) contributes to frequent and devastating flooding. The local government needs an early flood warning system to prevent future loss of lives and costly infrastructure damage.

## THE SOLUTION

Environmental observation company Obscape utilized Iridium Connected product RockBLOCK by Iridium partner Ground Control to build a disaster management solution aimed at flood prediction and preparation.





# Iridium® Enables Fishing Fleets to Stay Connected



**IRIDIUM CONNECTED® BY**  
S-Tracking Vessel Management System,  
Iridium 9603 Module

**IRIDIUM SERVICE**  
Iridium Short Burst Data® (SBD®)

**PARTNER**  
Viettel Smart Device Research Center

## THE CHALLENGE

Vietnamese fishing fleets chartering in remote oceanic locations must export real-time fishing catch reports and other vessel information to Fishery Monitoring Centers (FMCs), but extreme weather disrupts communication, leaving fleets unable to activate SOS distress signals in emergency situations.

## THE SOLUTION

Viettel's S-Tracking Vessel Management System connected Vietnamese fishing fleets to both local FMCs and first responders, providing up-to-date critical information that supports marine life sustainability in addition to increasing crew member safety.



# Iridium Certus® Keeps Skippers Connected During Races



**IRIDIUM CONNECTED® BY**  
Thales VesseLINK 700, OceanBox

**IRIDIUM SERVICE**  
Iridium Certus 700

**PARTNER**  
Thales Avionics, Inc. (fka LiveTV  
Satellite), Thalos SAS

## THE CHALLENGE

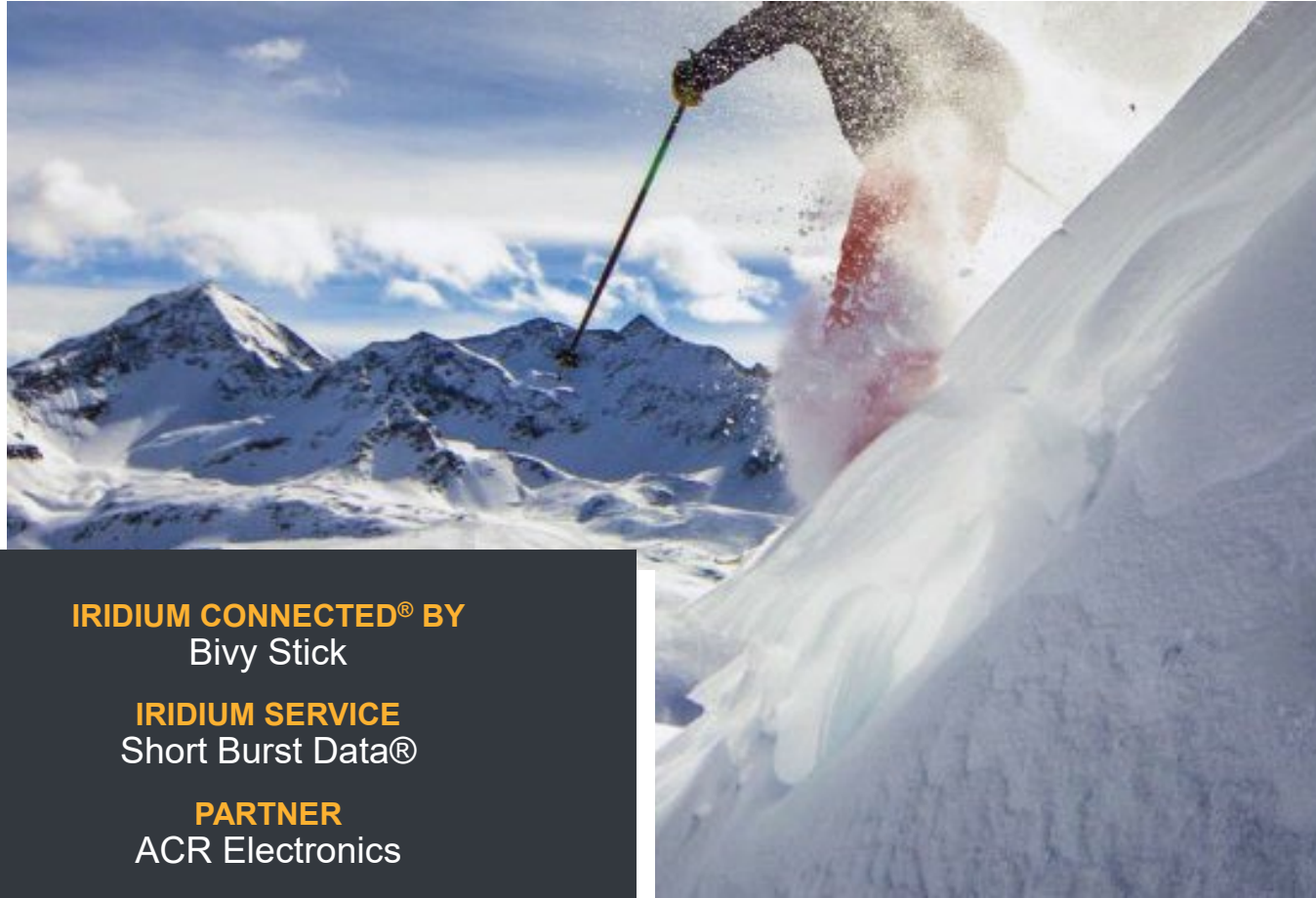
The IMOCA series of races push skippers to their limits and demand an always-on means of connectivity for safety and navigation. To remain connected, skippers often require multiple communications terminals which, historically, had to be manually switched between cellular and satellite coverage.

## THE SOLUTION

The addition of Thales VesseLINK and OceanBox by THALOS, optimized vessel communications flow and ensured skippers had an always available and reliable connection, regardless of location or access to cellular coverage.



# Iridium® Enables Backcountry Skier to Stay Safe



**IRIDIUM CONNECTED® BY**  
Bivy Stick

**IRIDIUM SERVICE**  
Short Burst Data®

**PARTNER**  
ACR Electronics

## THE CHALLENGE

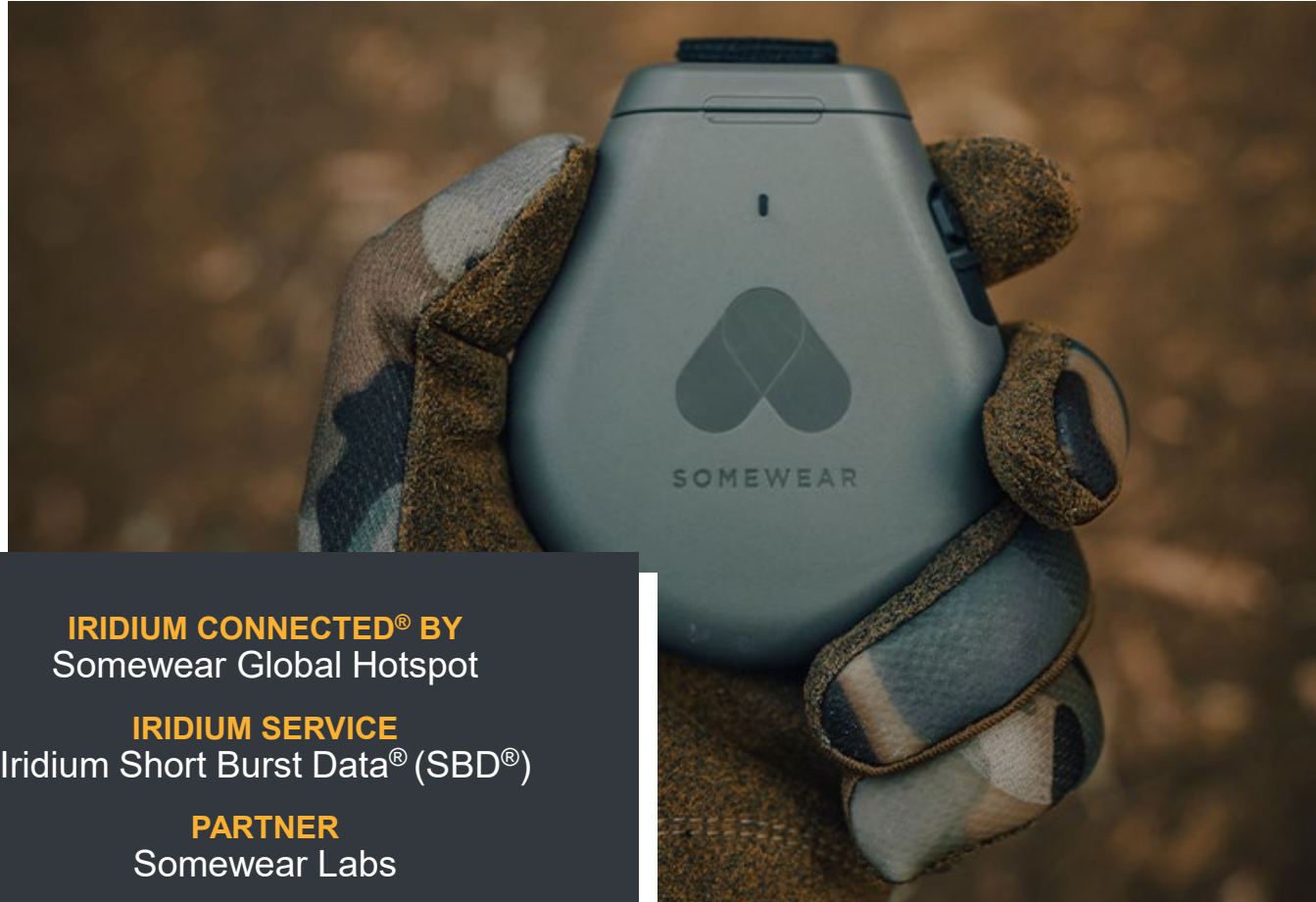
In 2018, extreme backcountry skier Cody Townsend set out to summit and ski all fifty lines and mountains chronicled in The Fifty Classic Ski Descents of North America. The skier needed to stay connected and able to call for help in an emergency.

## THE SOLUTION

Utilizing the Iridium Connected Bivy Stick, Cody Townsend felt safe and connected to his family, followers, and sponsors while summiting and skiing in remote locations well beyond cellular coverage.



# Iridium Enables Rescue Squadron to Work Faster and Stay Connected



**IRIDIUM CONNECTED® BY**  
Somewear Global Hotspot

**IRIDIUM SERVICE**  
Iridium Short Burst Data® (SBD®)

**PARTNER**  
Somewear Labs

## THE CHALLENGE

Rescue operations require reliable, easy-to-operate communications ensuring the safety and security of both the injured party and the rescuers, especially in areas outside of cellular coverage.

## THE SOLUTION

Utilizing Iridium's truly global coverage through the Iridium Connected Somewear Global Hotspot, para-rescue jumpers (PJs) experienced reliable integration with familiar systems and heightened connectivity and operational capabilities.



# Iridium Push-To-Talk Interoperability Enables Quick and Safe Deployment of Remote Construction Teams



## THE CHALLENGE

Utility companies building pipelines in isolated locations require reliable connectivity for construction crews working across vast regions and centralized base teams, but existing land-based solutions suffer from coverage outages and signal fade in remote areas.

## THE SOLUTION

The local affiliate of Iridium partner Globalsat Group worked with an Argentinian natural gas transportation company to test and deploy a solution leveraging Iridium Push-To-Talk capabilities through interoperable equipment, allowing for field teams to utilize satellite connectivity with VHF radio and VoIP telephony.

**IRIDIUM CONNECTED® BY**  
Iridium® Push-To-Talk (PTT)

**IRIDIUM SERVICE**  
Iridium® Push-To-Talk (PTT)

**PARTNER**  
Globalsat Group



# Iridium Certus® Enables Remote Monitoring of Subsea Systems



**IRIDIUM CONNECTED® BY**  
Iridium Certus™ 9810  
Thales VesseLINK

**IRIDIUM SERVICE**  
Iridium Certus®

**PARTNER**  
Applied Satellite Technology (AST)

## THE CHALLENGE

One of the world's largest oil and gas service companies required a reliable solution to remotely operate an oil rig without the use of an expensive sub-sea wired connection.

## THE SOLUTION

Iridium partner AST built a completely custom solution using Iridium Certus terminals that allowed the team to remotely retrieve data, control subsea equipment, and execute valve commands and safety tasks in real-time from the control center on the FPSO.



# Iridium® Helps Prevent Rail Collisions with Positive Train Control



## **IRIDIUM CONNECTED® BY**

Iridium Core 9523  
GSE MCG-101

## **IRIDIUM SERVICE**

Iridium Short Burst Data® (SBD®)

## **PARTNER**

Global Satellite Engineering (GSE)

## **THE CHALLENGE**

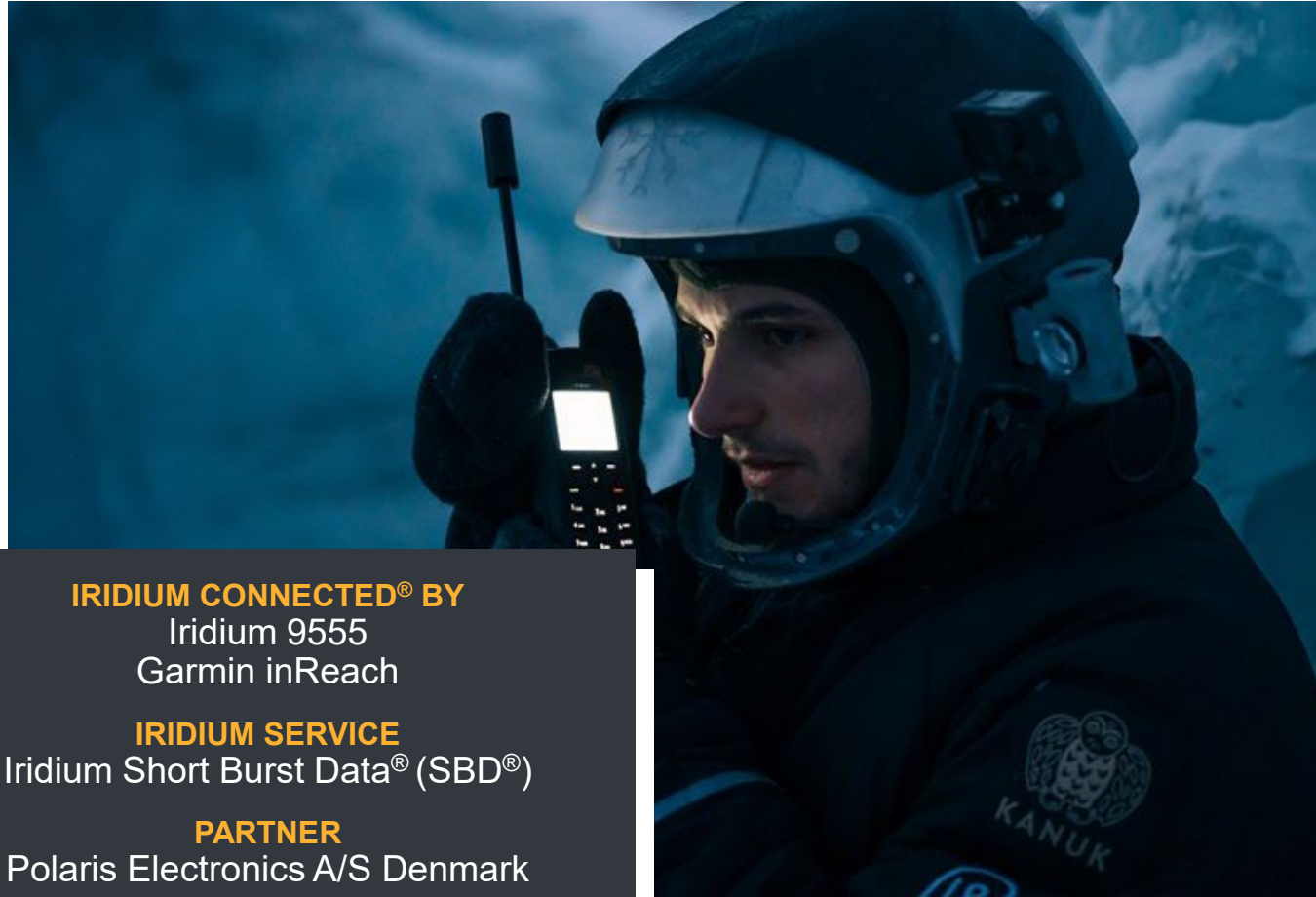
Positive Train Control systems designed to prevent collisions rely primarily on radio communications, but safety and regulatory compliance require backup solutions when radio communications are not available.

## **THE SOLUTION**

Iridium partner GSE developed an end-to-end solution to provide an Iridium Connected Positive Train Control system, as well as voice, data, GPS, and SMS services.



# Iridium® Enables Researchers to Stay Connected in Lunar Simulation Expedition



## **IRIDIUM CONNECTED® BY**

Iridium 9555  
Garmin inReach

## **IRIDIUM SERVICE**

Iridium Short Burst Data® (SBD®)

## **PARTNER**

Polaris Electronics A/S Denmark

## **THE CHALLENGE**

Research and test expeditions require reliable communications ensuring the safety and well-being of the explorers during their research.

## **THE SOLUTION**

Iridium and Iridium Connected devices enabled critical connectivity, safety warnings, and daily check-ins, allowing researchers to feel safe and connected while isolated in a remote location throughout a scientific simulation.





# Iridium® Push-To-Talk Enables Remote Utility Workers to Stay Connected



## **IRIDIUM CONNECTED® BY**

Iridium Extreme PTT  
Icom IC-SAT100

## **IRIDIUM SERVICE**

Iridium Push-To-Talk

## **PARTNERS**

Network Innovations, Icom

## **THE CHALLENGE**

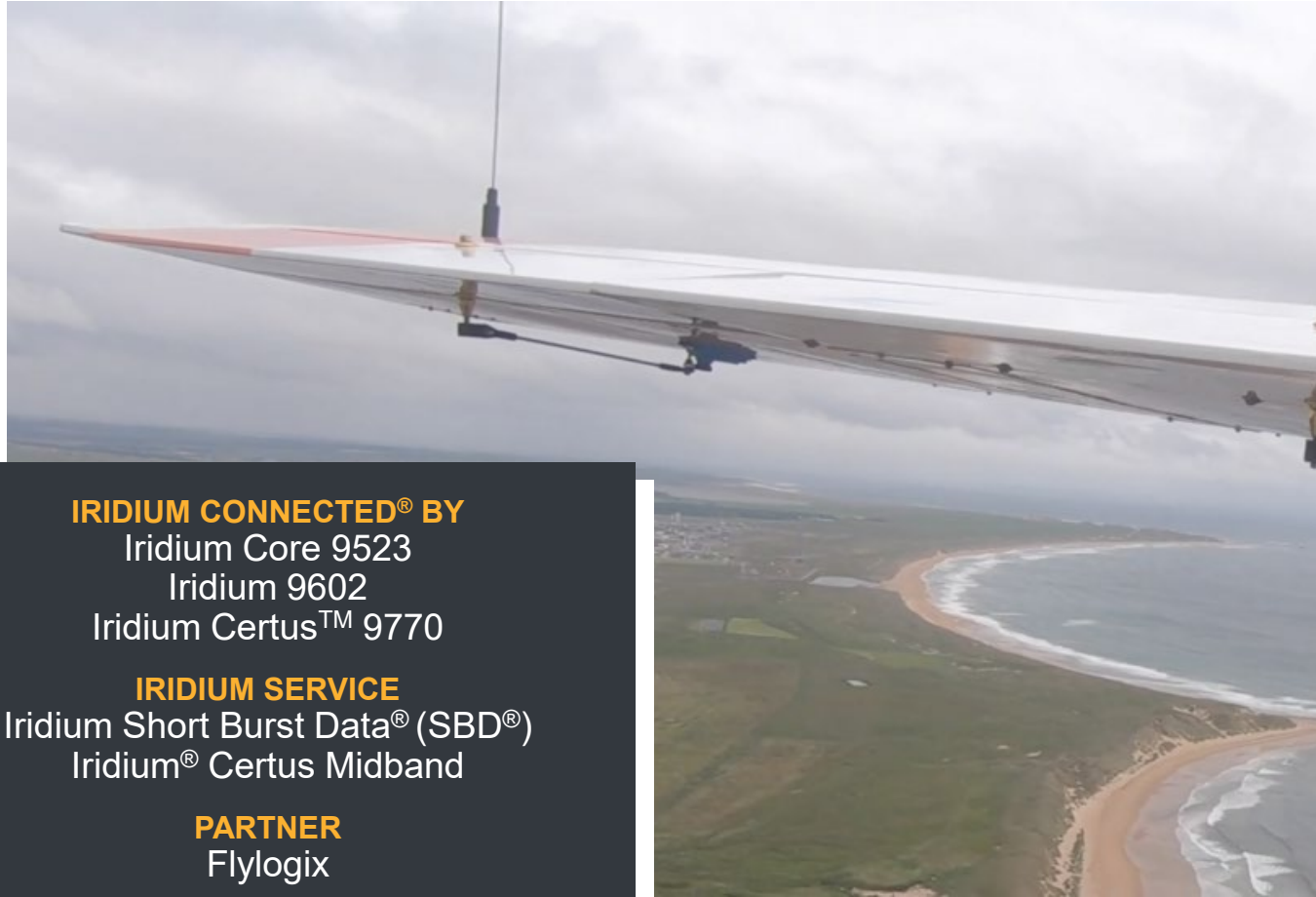
Companies building utilities infrastructure in remote locations require secure, mobile, and reliable communications for workers and mobile safety personnel, but custom terrestrial networks are costly, prone to weather interference, and can disturb local environments.

## **THE SOLUTION**

Working directly with the customer to test, deploy, and train workers, Network Innovations and their partner Tel-Loc leveraged Iridium Push-To-Talk solutions to keep field workers, medical and safety personnel, and operations centers connected throughout the development of a new utility line.



# Iridium® Global Line of Sight<sup>SM</sup> Services Enable Remote Monitoring of Offshore Oil & Gas Emissions



## IRIDIUM CONNECTED® BY

Iridium Core 9523

Iridium 9602

Iridium Certus™ 9770

## IRIDIUM SERVICE

Iridium Short Burst Data® (SBD®)

Iridium® Certus Midband

## PARTNER

Flylogix

## THE CHALLENGE

Offshore oil and gas rigs require maintenance and emissions' monitoring to comply with various regulations.

## THE SOLUTION

Remotely piloted drones are smaller, lighter, more affordable, and less disruptive, allowing companies to send sensors into the field and collect critical data.



# Iridium® Enables Safe and Connected Off-Road Rally Racing



## **IRIDIUM CONNECTED® BY**

Iridium 9555  
Icom IC-SAT100  
YB3i Tracker  
RockAIR

## **IRIDIUM SERVICE**

Iridium Short Burst Data® (SBD®)  
Iridium® Push-To-Talk (PTT)

## **PARTNERS**

Yellowbrick, Roadpost, Icom, Rock7

## **THE CHALLENGE**

Off-road rally races require clear, reliable communications ensuring the safety of both the competitors and the rally producers.

## **THE SOLUTION**

Creating a communications ecosystem of Iridium and Iridium Connected devices allowed both competitors and organizers to feel safe and connected when the race took them beyond the reach of cellular coverage.



# Iridium Connected® Drones Deliver Vaccines in Remote Areas



**IRIDIUM CONNECTED® BY**  
Iridium Core 9523

**IRIDIUM SERVICE**  
Iridium Short Burst Data® (SBD®)

**PARTNERS**  
Swoop Aero  
M2M Connectivity

## THE CHALLENGE

Children in a remote Island in the South Pacific Ocean go unvaccinated because of logistical challenges in distributing medical supplies over treacherous terrain.

## THE SOLUTION

The Iridium Core 9523 is an inexpensive, lightweight module that can be embedded into the command systems of drones used for on-demand vaccine distribution.



# Iridium® Keeps Fishing Vessels Compliant



**IRIDIUM CONNECTED® BY**  
Bluetracker® VMS

**IRIDIUM SERVICE**  
Iridium Short Burst Data® (SBD®)

**PARTNER**  
EMA Group (EMA)

## **THE CHALLENGE**

Albania's prominent fishing culture generates a demand for a reliable monitoring system for accurate fishing vessel reporting.

## **THE SOLUTION**

A tracking device by Iridium provides dependable and continuous monitoring of several hundred vessels simultaneously.



# Iridium Certus<sup>®</sup> Keeps Remote Polar Scientific Facility Connected



**IRIDIUM CONNECTED<sup>®</sup> BY**  
Iridium Certus<sup>™</sup> 9810  
Thales VesseLINK

**IRIDIUM SERVICE**  
Iridium Certus<sup>®</sup>

**PARTNERS**  
IEC Telecom, Thales

## THE CHALLENGE

A remote Arctic island presents opportunities for innovative scientific research but is inaccessible and disconnected.

## THE SOLUTION

An autonomous field station connected by Iridium Certus equipment regularly transmits data to scientists around the world.



# Iridium Connected® UAVs Keeps Help Forecast Tropical Cyclones



**IRIDIUM CONNECTED® BY**  
Iridium Core 9523  
ATMOSPHERE PLANET Terminal

**IRIDIUM SERVICE**  
Iridium RUDICS

**PARTNERS**  
ATMOSPHERE, Boreal SAS

## THE CHALLENGE

Connectivity limitations beyond line of sight prevent UAVs from collecting and transmitting key data related to predicting cyclones.

## THE SOLUTION

New UAVs equipped with ATMOSPHERE's Iridium Connected terminal can react in real-time to weather conditions and capture more data due to Iridium's Global Line of Sight<sup>SM</sup> services.



# Iridium® Push-To-Talk Helps Promote Coexistence Between Communities and Wildlife in Kenya



**IRIDIUM CONNECTED® BY**  
Iridium Extreme® PTT

**IRIDIUM SERVICE**  
Iridium Push-To-Talk

**PARTNER**  
Kinetic Six

## THE CHALLENGE

Home to many diverse peoples and wildlife, the Kenyan savannah is monitored by community rangers who historically had to rely on a patchy network of radio and cell towers to stay connected.

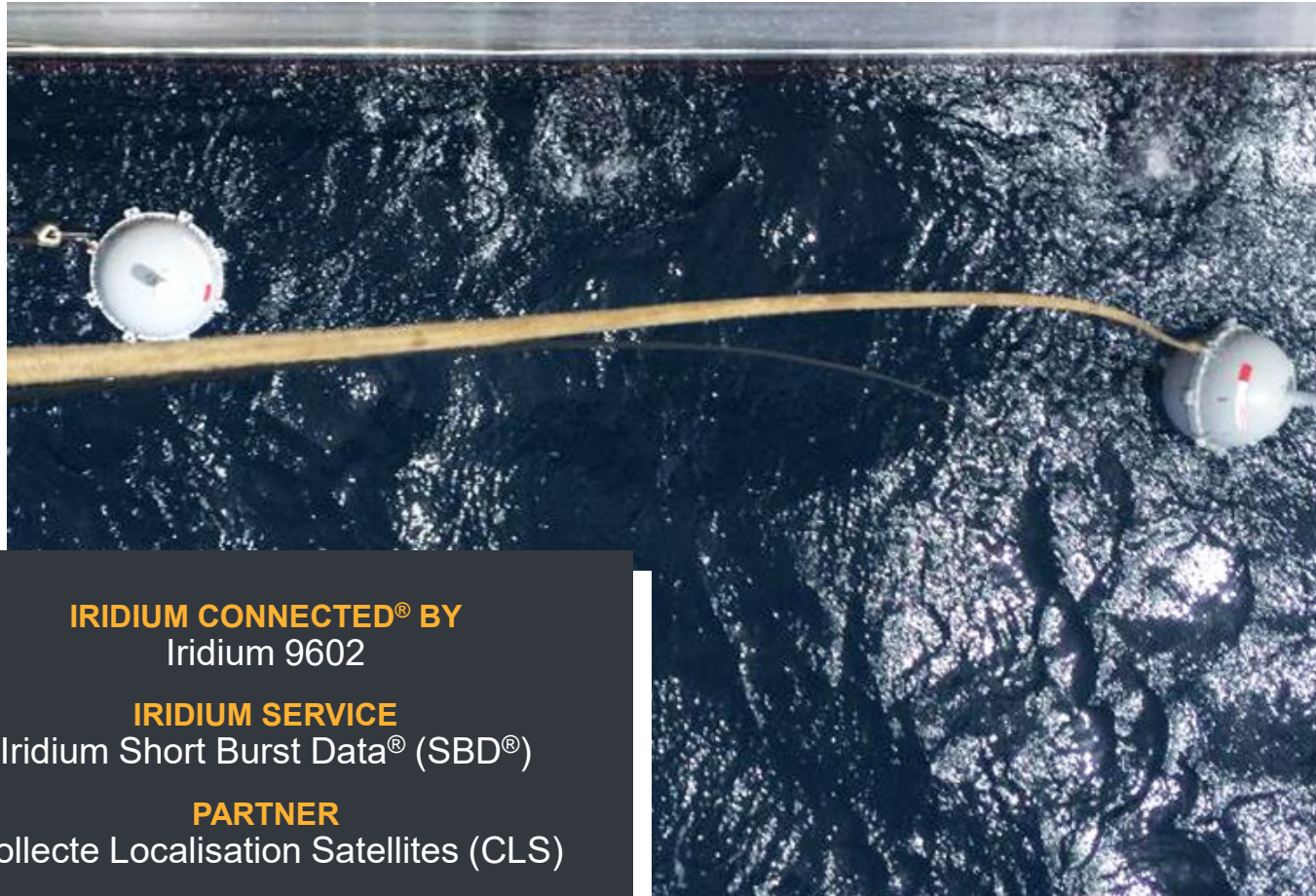
## THE SOLUTION

An updated system combining the group communication capabilities of Iridium Extreme PTT devices and updated mobile phones, created a secure, well-connected network of rangers.





# Iridium Short Burst Data<sup>®</sup> Improves Climate Monitoring Accuracy



**IRIDIUM CONNECTED<sup>®</sup> BY**  
Iridium 9602

**IRIDIUM SERVICE**  
Iridium Short Burst Data<sup>®</sup> (SBD<sup>®</sup>)

**PARTNER**  
Collecte Localisation Satellites (CLS)

## THE CHALLENGE

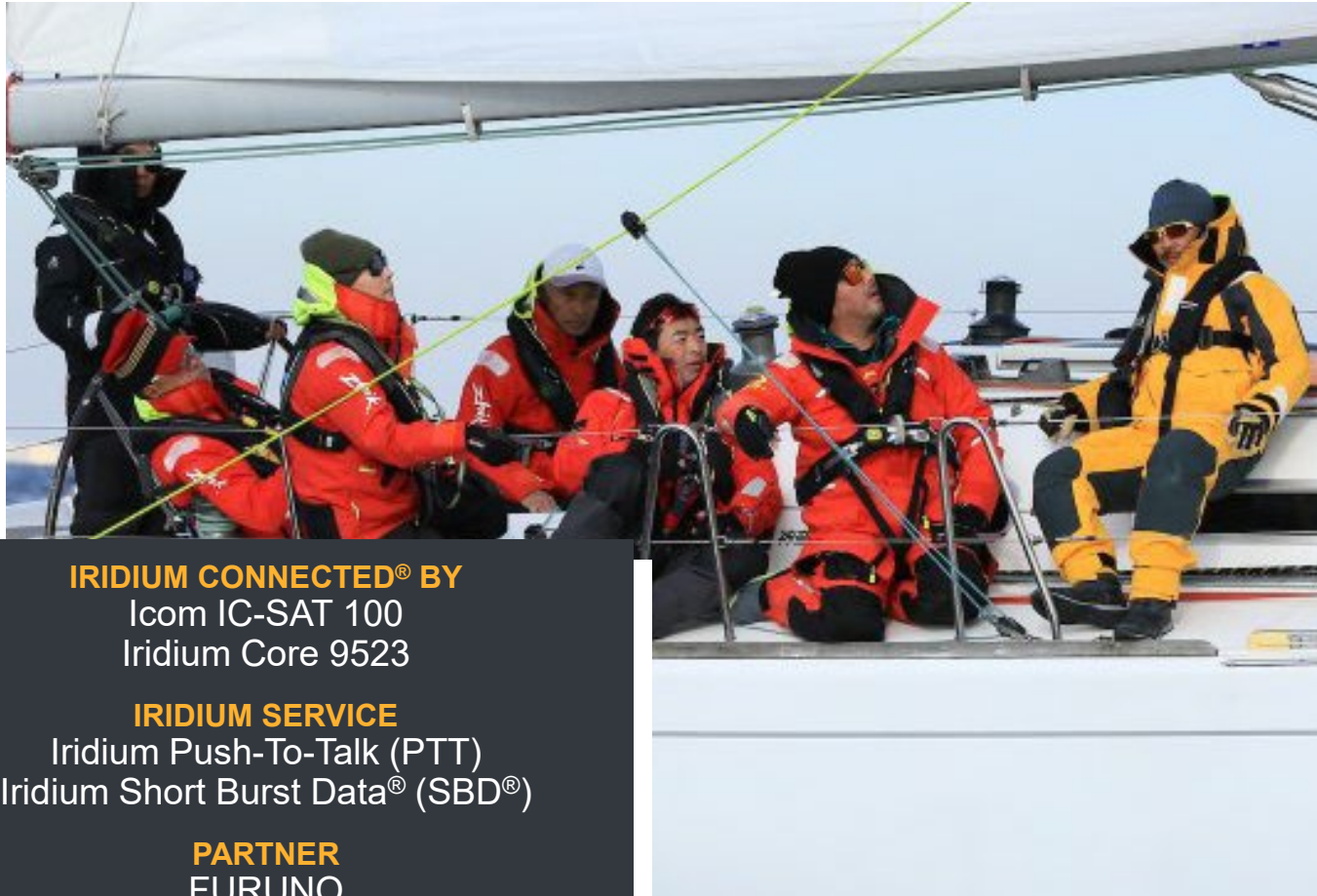
Meteorological research requires access to a constant stream of oceanographic data, including sensors located in oceans across the globe.

## THE SOLUTION

Iridium partner CLS designed and built buoys with the small, lightweight Iridium 9602 module inside to enable real-time streams of ocean temperature data.



# Iridium® Connects Participants During Historic Yacht Race



## **IRIDIUM CONNECTED® BY**

Icom IC-SAT 100  
Iridium Core 9523

## **IRIDIUM SERVICE**

Iridium Push-To-Talk (PTT)  
Iridium Short Burst Data® (SBD®)

**PARTNER**  
FURUNO

## **THE CHALLENGE**

A unique commemorative event on open seas presents communication challenges for several teams in need of safety updates.

## **THE SOLUTION**

An easy-to-use and highly impactful group communications device using Iridium services allows organizers on shore to trace the location of teams and communicate critical information in real time.



# Iridium® Keeps Relief Flights Connected After Indonesian Tsunami



**IRIDIUM CONNECTED® BY**  
BSN D1000A Flight Tracking Transceiver  
BSN ACH1000 Advanced Control Head  
Iridium 9602

**IRIDIUM SERVICE**  
Iridium Short Burst Data® (SBD®)

**PARTNER**  
Blue Sky Network

## THE CHALLENGE

Many Indonesian islands lack airport or air traffic control infrastructure, making the delivery of food and medical supplies after a natural disaster difficult for pilots.

## THE SOLUTION

Iridium partner Blue Sky Network installed Iridium Connected products onboard flights for a local Indonesian airline to ensure reliable and consistent connectivity for mission dispatch, flight planning, and two-way communications.



# Iridium Pilot® Aids Antarctic Rescue of Stranded American Scientists



**IRIDIUM CONNECTED® BY**  
Iridium Pilot®

**IRIDIUM SERVICE**  
Iridium OpenPort® Broadband

**PARTNER**  
Tesacom

## THE CHALLENGE

In 2018, five American scientists conducting research were stranded on a remote island near the tip of the Antarctic Peninsula.

## THE SOLUTION

Argentina's Ministry of Foreign Affairs facilitated a remote rescue mission using a naval icebreaker with Iridium Pilot.



# Iridium® Helps Monitor and Protect Rare Species Around the Globe



**IRIDIUM CONNECTED® BY**  
Instant Detect

**IRIDIUM SERVICE**  
Short Burst Data® (SBD®)

**PARTNER**  
Zoological Society of London (ZSL)  
Seven Technologies Group  
Cambridge Consultants  
Ground Control

## THE CHALLENGE

ZSL works to protect endangered species from threats such as poaching, illegal extraction and habitat loss in vast, remote, difficult to reach locations.

## THE SOLUTION

Working with Iridium partners, ZSL developed a system that can capture data remotely and transmit it in near real time from any part of the world.

This technology allows data to be gathered on a very large scale to complement scientists' manual data collection to monitor rare species and help anti-poaching efforts.



# Iridium® Keeps Climate Researchers Connected in the South Pole



**IRIDIUM CONNECTED® BY**  
Iridium GO!®  
Iridium Pilot®

**IRIDIUM SERVICE**  
Iridium OpenPort® Broadband

**PARTNER**  
Antarctic Circumnavigation Expedition

## THE CHALLENGE

An arduous four-month journey into the one of the most remote places on earth leaves this international team of researchers with unique communication needs.

## THE SOLUTION

Iridium's tracking and communication devices provide a dynamic toolkit for conducting and relaying critical findings.



# Iridium Edge<sup>®</sup> Helps Companies Securely Track Cargo for International Land Shipments



**IRIDIUM CONNECTED<sup>®</sup> BY**  
Iridium Edge<sup>®</sup>

**IRIDIUM SERVICE**  
Iridium Short Burst Data<sup>®</sup> (SBD<sup>®</sup>)

**PARTNERS**  
Tesacom and PLK

## THE CHALLENGE

Companies needed a secure lock system connected to a powerful communications network to ensure unopened cargo for safety purposes.

## THE SOLUTION

The size and strength of Iridium Edge made it the perfect tool to discreetly offer constant connectivity to PLK devices.



# Iridium® Automates Oil Equipment in the Argentine Desert



**IRIDIUM CONNECTED® BY**  
Iridium Edge®

**IRIDIUM SERVICE**  
Iridium Short Burst Data® (SBD®)

**PARTNERS**  
Tesacom

## THE CHALLENGE

Workers have to remotely monitor oil rigs before fracking, but need a reliable connection with coverage to do so.

## THE SOLUTION

A combination of Tesacom's cellular equipment with Iridium Edge devices allows Exemys' equipment to reliably connect to the Internet.





# Iridium Short Burst Data<sup>®</sup> Helps Coordinate Disaster Response in Canada



**IRIDIUM CONNECTED<sup>®</sup> BY**  
SCC TITAN  
Iridium 9602 & Iridium 9603

**IRIDIUM SERVICE**  
Iridium Short Burst Data<sup>®</sup> (SBD<sup>®</sup>)

**PARTNERS**  
NORTAC Defence Limited (FKA T24)

## THE CHALLENGE

Flooding in Canada's major cities of Ottawa and Montreal prompted hundreds of evacuations and the mobilization of Canada's LENTUS natural disaster response program.

## THE SOLUTION

Canada's Department of National Defense used Iridium Connected T24 Whisper devices to track assets and personnel, as well as allow text communications to organize logistics for disaster response efforts.



# Iridium Extreme® Provides Safety to Nomadic Mongolian Tribe



**IRIDIUM CONNECTED® BY**  
Iridium Extreme®

## THE CHALLENGE

A nomadic tribe of reindeer herders in a remote region of Mongolia lacked access to medical care or the ability to contact emergency assistance.

## THE SOLUTION

Iridium Extreme satellite phones enable reliable connectivity throughout the Mongolian mountains where the tribe lives.

To read more about Iridium in use, visit  
<https://www.iridium.com/case-studies/>



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