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TRACKING, PLUS

Remember the early years of mobile phones? The tracking market today is similar. With a flood of flight trackers on the market, and none of them talking to each other, something's got to give. *HeliNews* looks at TracPlus, a New Zealand-based company that's bringing the Vodafone model to the skies.

No, New Zealand-based tracking service provider TracPlus is not just another tracker.

You could be forgiven for thinking so – there are as many tracking devices on the market these days as there are mobile phones, it seems. But while TracPlus provides high-quality tracking hardware to operators (notably helicopter operators) around the world, it's not in the business of manufacturing that hardware at all. And while it creates software that allows operators to track their mobile assets from their command centres, laptops or PDAs, it's not exactly in the software business, either.

Instead, TracPlus is an innovative, interconnected tracking service provider that threatens to shake up the tracking business in a big way – moving this new and evolving industry closer to the model of the more established mobile phone market. This new company's business model makes so much sense, it's hard to believe that the industry hasn't already adopted it.

"We can take any device and any data, pass it through our systems in a secure, mission-critical way and deliver it to any software," explains TracPlus marketing manager Mike Hanning, drawing a comparison between TracPlus and mobile phone service providers like Vodafone. Today, the idea of Vodafone restricting its customers to calls to other Vodafone customers seems absurd, but remember the early days of mobile phones? The situation wasn't so different from the tracking industry today.

"In tracking in general, it is all proprietary," Hanning says. "It's, 'sorry, you can't talk to that device because it's not our device'. All these companies are simply trying to lock you in. It cannot be sustained. It has to change to what we're doing."

Helicopters Otago landing on an iceberg off the coast of Dunedin, New Zealand. Without flight tracking, this helicopter would be adrift.

Let's face it: in search and rescue applications, six minutes of unscheduled downtime per year is as much as you want.

A DIFFERENT MODEL

The founder of TracPlus and its parent company, Daestra, is Chris Hinch. Hinch is a technical consultant and pilot with experience developing a sophisticated air traffic control simulator, among other projects. In 2003, he founded Daestra's forerunner, Pathfinder Technologies. Around the same time, a boating tragedy called attention to technological shortcomings in New Zealand's search and rescue infrastructure.

"We had a couple of incidents here in New Zealand that were very hard hitting," Hanning says. It became apparent that SAR coordinators needed more and better tracking devices to better manage their mobile assets.

Hinch's conversations with Graeme Gale of Otago Helicopter Rescue gave him the idea of developing a tracking device and software to serve that need. He took his pitch to the Dunedin-based business incubator Upstart, where it was promptly shot down.

"They went, 'Tracking companies are a dime a dozen. Go away'," says Hanning. But when Hinch reconceived his business as a tracking service provider, Upstart saw its potential and offered support. That was three years ago. Today, after extensive beta testing, and now selling to 15 countries worldwide, TracPlus is ready to launch on a big scale into Australia, and its business model continues to win accolades, most recently in the global Technium Challenge for Innovation, held in Wales.

So how does it work? Behind the scenes, the TracPlus team of programmers build (and continue to develop) the core tracking infrastructure, software and gateways into the hardware and third-party software that TracPlus supports – allowing the company to pull unlimited raw data from a tracking device, transmit it, and deliver a 'big picture' view via secure channels to the operator's software of choice. This TracPlus-specific IP and infrastructure allows for integration of devices, networks and software, and is a significant – and unique – component of TracPlus' capability.

The company looked far and wide to find secure data centres that would satisfy its network needs. The Sydney-based data centre it settled on for this region offers absolute security of information and 99.999 percent availability – which is a big step up from, say, 99 percent availability, notably in mission-critical situations when lives are on the line.

"You pay for it, but it means you have less than six minutes of unscheduled downtime per year," says Hanning. Let's face it: in search and rescue applications, six minutes of unscheduled downtime per year is as much as you want. (By way of comparison, 99 percent availability equates to 87.6 hours of downtime per year.)

But the brilliance of TracPlus is that customers don't have to worry about any of these behind-the-scenes details – the end product is seamless, proven and secure. Here's how it works from the user's perspective. First, customers select the tracking hardware that's most appropriate to their mission profile, whether that's a small portable tracking device that they can move between helicopters or a sophisticated installed unit with integrated communications.

Much like a mobile phone provider that offers a variety of hand-

above: **Otago Rescue Helicopter Trust HUP in New Zealand, a TracPlus user.**
opposite page: **TracPlus user Otago Rescue Helicopter Trust HUP in action.**

sets, TracPlus supports a range of tracking devices: its present line-up includes eight different brands and 18 different models, though the company is adding more to the list as it encounters worthy products. "We only support best in breed," Hanning says. (Two examples of those 'best in breed' products at either end of the functionality spectrum are the NAL portable unit with emergency function and battery, and the Flightcell DZM, a permanently installed, multi-link communications hub produced by another New Zealand original, Flightcell International.)

Some customers come to TracPlus with a specific idea of the hardware they want; others rely on TracPlus to guide them through the selection process. The company can recommend tracking devices based on aircraft type and mission profile. It's worth noting that, because TracPlus supports a range of hardware, an equipment commitment doesn't have to be 'forever'. "If they want to upgrade at a later date, they can, and they can even mix and match competing brands of equipment through their fleet," Hanning says.

On the other hand, because TracPlus can support tracking devices even if their manufacturers go belly up, operators can feel confident signing on for the long haul.

"Anything we bring on we support until it dies," says Hanning.

On the software side of things, customers can opt for TracPlus' proprietary tracking software: a user-friendly, installed program with its own regional map sets that can be accessed via any PC. Customers who don't want installed software can access tracking information through any web portal, taking advantage of Google Maps and Google Earth. Convenient and straightforward, it's a logical choice for most operators (and even private owners).

Government, state or military customers, however, may already be tied to specific software programs. In these cases, TracPlus can build custom gateways into the software in question, allowing large operators to upgrade their hardware or services without losing their investments in software and training.

Such seamless integration makes a big difference in police, SAR, emergency services and similar control rooms, where commanders are frequently tracking diverse mobile assets equipped with widely varying hardware. Instead of needing "four or five systems in their control rooms to talk to all of their call-when-needed operators," says Hanning, "it will all appear on the same screen at the same time as if they're using the same system".

Borrowing innovations from internet programs like Skype, TracPlus makes it easy for users to control who can see their tracking data. Using a simple drop-down menu, a call-when-needed operator can make his aircraft visible to search and rescue coordinators – when needed. When that aircraft is on a commercial job, the operator can bring access to that tracking data back in-house. Some operators choose to make the data available to their pilots' families, so the wife sitting at home doesn't have to wonder if her husband is at the pub – she can log in and see that he's still on the job (or at the pub).

Like a mobile phone provider, TracPlus charges for its services. And the fees aren't far off from mobile phone rates. Besides monthly service and login charges, current fees for a two-minute reporting rate on the Iridium network, work out to about US$2.40 per operational hour. That's a reasonable rate for a reasonable reporting frequency.

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One of the chief purposes of flight tracking, of course, is to give SAR operators a place to start looking in the event that an aircraft goes missing. The search radius defined by a two-minute reporting frequency is exponentially smaller than the area defined by, say, a four-minute reporting frequency.

FIELD TESTED

Although TracPlus has only been on the market since August 2007, it has validated its model through several years of testing. "More importantly, it has proven itself in more than 15 countries worldwide with exacting customers in extremely high-risk operations such as the US State Department, the New York Air National Guard and the New Zealand Coastguard," Hanning says. According to Hanning, about 90 percent of all air rescue operators in New Zealand use TracPlus for their day-to-day operations.

"Those guys are the ones who are flying in the highest-risk environments and some of the worst conditions," says Hanning.

"TracPlus is the only way forward for flight following," says Patty Nolan, CEO of Backcountry Helicopters, in a testimonial. "Finally, we have a flight following system for our back country pilots who operate in very remote mountainous terrain. Having the ability to track our helicopters from the office and have GPS coordinates of their exact location and ETA to base has turned our lives around. We now have peace of mind and the anxiety of not having direct helicopter-to-base communications in these areas has been eliminated."

TracPlus' market is not limited to helicopters, or even aviation. The tracking industry is exploding: manufacturers are finding applications for the technology in such 'mission critical' fields as keeping tabs on Alzheimer's patients and autistic children. Nevertheless, "Aviation is still a high-growth area and there's a lot of demand and a lot of need," Hanning says. And while TracPlus is serving aircraft as large as Airbus A310s and C130s, the helicopter industry is a particularly strong sector of the tracking market; in part because of the remote and unscheduled nature of much helicopter work. "Certainly rotary has seen the greatest growth recently," says Hanning.

For the people behind TracPlus, the potential "to make a difference and give peace of mind" is the passion that fuels the business.

"What we want is operators to embrace this technology and its use, as it will make significant changes in their working lives," says Hanning. "We don't care what people are using as long as they're tracking. By using our service they not only get a world-class tracking service, but they retain the freedom of choice." **HN.**

Rule #1 of portable satellite tracking

If it doesn't have a battery, it's not portable

If you are considering portable satellite tracking solutions, consider this.

TracPlus supports the smallest, lightest and most cost effective Iridium portable tracking terminals available.

No if's, and's or but's.

So next time someone tells you their tracking terminal is "truly portable", make sure you know what strings (or cables) are attached.

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TracPlus has the widest range of both portable and permanent install tracking hardware available.

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- Finalist TUANZ Initiative of the Year
- Finalist NBR Bayer Innovator of the Year
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