

Record Kite Flight Seen as a 'Job Well Done'

Almost a year ago, Richard Synergy of Toronto flew a kite 14,509 feet into the air to set a single kite altitude record. It was the culmination of 10 years of effort.

With the mark now headed for the *Guinness Book of World Records*, Synergy looks back and says the whole thing was well worth the effort. Unable to get commercial sponsorship, he basically pulled it off alone, backed by a loyal volunteer crew, and he estimates he spent \$70,000 on the project out of his own pocket during the decade.

"I received enormous personal satisfaction and it was a wonderful personal growth lesson," he says. "It was money well spent. I learned discipline, planning, stick-to-it-ness. This all should serve me well in my future life."

Apart from his 15 minutes of fame, Synergy says the flight has provoked some contract work from scientific projects—nothing major—but he hopes for more. Beyond that, the effort opened up many avenues for research to Synergy, some of which he is pursuing. Safe production of electrostatic power using a high flying kite is one of these. "There are tons of potential spinoffs," he muses.

For those unacquainted with the epic flight, the facts are straightforward. Synergy flew a 30-foot span, 18-foot high delta with sail area of 270 square feet. It had a ripstop sail and the line was 3/32 inch-thick woven Kevlar (of bullet proof vest fame). The peak altitude, reached at 7:44 p.m. Aug. 12, 2000, over Kincardine, Ontario, was calculated by two on-board altimeters. (Adjustments were made for temperature and humidity and the pressure altitude had to be converted to geometric altitude. The altitude record claimed is from "above the feet of the flier," viz. sea level was not considered in the calculation.) Synergy and team of engineers, recreational aircraft pilots and ham radio operators, had a perfect day for flying—clear and sunny skies, low winds up to 4,000 feet and thus low drag on the line, higher wind above that and thus good lift for the kite. The operator of a nearby airport spent the day warning off passing aircraft.

Glitches during the 11-hour flight included a problem with the angle of attack adjustment device, troubles with the shock absorber on the line to cope with wind gusts and, mainly, a misbehaving winch as the line flew for 40 minutes at altitude. Five members of the crew—Gordon Moogk, David Little, Gary Janssen, Michael Hartwick and Michael Cannell—exhausted themselves bucking 100 pounds of pull on the line as they took on the burden of flying the kite as repairs were made.

"For me, this was the scariest time," Synergy says. Having promised Navigation Canada (the Canadian equivalent of America's Federal Aviation Administration) he'd have the kite back on the ground by 10 p.m., Synergy feared the glitch would force him to fly the kite through the night until

the wind dropped enough to bring it in. As it happened, the team figured out how to upgrade the winch's capacity and brought the giant kite down to a gentle landing only 100 yards from the launch site in a cutover wheat field. "It was an epic of teamwork," says Synergy. "We have years worth of stories."

There is conflict over what the previous single kite high altitude record was, but whatever it might have been Synergy clearly topped it and now reigns.

"Job well done," messaged distinguished kite writer Tal Streeter. That seems to sum up the reaction of the

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Air show over, departure from Clark is at 5:30 a.m. and it's back to Manila through early clogged morning traffic. A beautiful crate made—crafted, really—by "Ben" Pangilinan for his kites and other Drachen items, including an eight-foot banner showing the Drachen logohead and costing all of \$10, is stowed by Orly and it is off to the airport for the visitor's mid-afternoon flight. Despite the short distance involved, it has taken some five hours to accomplish this trip from Clark to the Manila airport.

In farewell, Orly says he plans to continue his research into the relationship of Philippine kites to kites from adjacent countries such as Indonesia, Malaysia, Thailand, Korea and China. He also plans to study the fern leaf kites still used in the southern part of the country with a view to supplementing research on kite origins now being conducted by a number of scholars. All this will go into his revised book. Meanwhile, he thinks big organizationally. He hopes to organize a kite federation with five other Southeast Asian nations to really put this region on the kite map.

No one would ever accuse Orlando Ongkingco of not thinking big. 🌟

– Ben Ruhe

Addendum

Issue No. 6 of the Drachen Journal dealt with utilitarian and sports uses of traction kites. For those seeking additional information on the sports aspect of the subject, Kite Boarding magazine, an American publication, may be helpful. Contact the editorial director on e-mail as follows: tom.james@worldpub.net.

The Magic Rule of Three

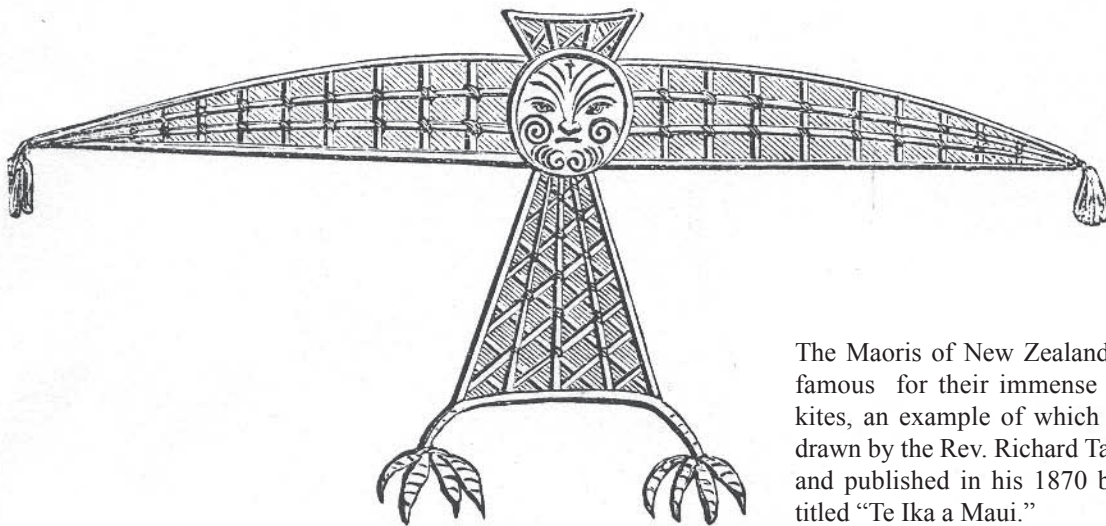
I'm not at all sure about it, but the more kites I observe and the more of them I construct, the more I am beginning to suspect that kite aerodynamics may be ruled by the number three.

Observe: The crosspiece on the two-stick flat kite is ideally one-third of the way down the main mast. The sled kite is in three parts—two keels and one flat section, and the vent, if any, is one-third of the way up the trailing edge. The parawings have three sets of bridles while the parafoil has three ribs separating each air chamber, as well as three keels. The depth of the kite is two-thirds of the width.

Consider: The usual point of connection for the flying line is one-third of the way down the length of the vertical bridle. It is well known to aficionados the flying line should have a breaking strength equal to three times the frontal surface area of the kite in square feet. There are three types of winds—light, medium and heavy—and probably the best winds of the day come at 3 o'clock in the afternoon.

Conclude: When kiteflying is over the day, three drinks are better than two—and greatly assist in raising the three sheets to the wind!

---Ed Grauel



The Maoris of New Zealand are famous for their immense bird kites, an example of which was drawn by the Rev. Richard T aylor and published in his 1870 book titled "Te Ika a Maui."

One Day the String Broke

One day the string broke.

The kite fled over the shoulder of the world

But reluctantly, reaching back in great lunges

As lost kites do, or as a girl running

In a reversed movie, as at each arched step, the earth

Set free, leaps forward, catching

Her further back;

The treadmill doubly betraying,

Remote and more remote.

Now I lie on a west-facing hill in October.

The dragging string having circled the world, the universe

Crosses my hand in the grass. I do no grasp it.

It brushes my closed eyes, I do not open.

That world is no longer mine, but for remembrance.

Space ended then, and time began.

—Eugene McCarthy