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# Canada missing dozens of radioactive devices: report

## Atomic database shows lost technologies could prove deadly in hands of terrorists

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The Canadian Press

At least 76 radioactive devices — several of which could be used in a terrorist attack — have gone missing in Canada over the last five years, newly compiled figures show.

They're stolen from cars, disappear from construction sites, fall off trucks and generally go astray at an alarming pace.

The Canadian Press has created the first public database showing the rate at which these widely used devices vanish, often for days, sometimes without a trace.

It chronicles dozens of thefts and mishaps involving hazardous equipment employed daily in tasks ranging from oilwell measurements to pioneering medical research.

Thirty-five of these were nabbed by thieves. Three others were found in a roadside ditch, a garbage landfill and a farmer's field.

And at last count, dozens were still missing.

The eye-opening data emerge as anti-terrorism experts warn it's a matter of when — not if — readily available material will be used to craft a crude radioactive explosion, or dirty bomb, that could sow panic and cost billions of dollars to clean up.

Some of the incidents would be laughable if the potential implications weren't so serious:

- A smash-and-grab crew in Red Deer, Alta., played hot potato with a radioactive device after stealing a trailer containing the dangerous item.
- A Quebec inspection firm has lost six nuclear gauges to thieves in the last three years.
- A radioactive tool was turned in by an honest citizen after it fell out of a truck making a right-hand turn in Peterborough, Ont.

Ontario and Quebec were the hot spots, with 18 incidents each, according to reports filed with the Canadian Nuclear Safety Commission and obtained by the Canadian Press under the Access to Information Act.

Alberta figured in 16 cases, British Columbia nine, Manitoba four, Saskatchewan three and neighbouring Montana one.

Many of the items were recovered. Others simply weren't potent enough to pose serious hazards. But radiation safety experts say several devices that went missing, even if temporarily, could have posed a genuine security risk in the wrong hands.

**Could spew radiation up to several kilometres**

The blast from wrapping radioactive material with a conventional explosive would likely kill or maim few people. But it could spew radiation up to several kilometres, depending on wind speed and the type of material used, forcing evacuations and breeding chaos.

That's why they've been dubbed "weapons of mass disruption."

Consider the three Keystone crooks in Red Deer who smashed their all-terrain vehicle through a fence and drove off with a trailer, only to discover a radioactive oilwell gauge inside.

They cut locks and "towed it away not even knowing what the hell it was," said Les Owens of Ultraline Services Corp., the company that owned the device.

It was five days before anyone noticed the trailer missing and reported it stolen, on June 25, 2003.

The lead-encased tool used to assess the depth of oil and gas deposits was recovered a week later, apparently after the panicked thieves noticed "radioactive" warnings and dumped it.

**Would cost $23.5B to clean up**

Three men and a child living with them later tested negative for radiation sickness, said Kathe DeHeer of the RCMP in Red Deer.

"They were very, very fortunate."

So was the Canadian public.

Preliminary findings of a federal study released to the Canadian Press say a gauge like the one stolen in Red Deer, detonated near Toronto's CN Tower, would spew radiation over four square kilometres and cost the economy up to $23.5 billion.

In fact, explosives would not even be needed. A terrorist could leave an unshielded radioactive device — a so-called silent bomb — in a park or airport lounge.

Such an attack would be especially effective given that the public generally knows little about radiation and its dangers.

A study last year by the Canadian Security Intelligence Service said it's "quite surprising" terrorists have not already set off a crude radioactive bomb.

"We are positively overdue" for such an attack, CSIS said. Radiological sources are prevalent, while increasingly savvy and emboldened Islamic extremists are bent on inflicting economic devastation as much as death.

**Numerous gaffes and miscues**

The prospect of a radiological incident appears to have officials in Ottawa spooked.

Requests to various agencies for interviews about Canada's readiness were met with weeks of stony silence while bureaucrats carefully vetted their answers.

It doesn't help that no fewer than six federal agencies share related duties for preparedness.

The International Atomic Energy Agency (IAEA) has called for improved monitoring of radiological devices.

Canada followed suit with a national inventory and tracking system for sealed radioactive sources, as well as steps toward improved storage and transport security.

Those efforts are apparently needed. The declassified incident reports reveal numerous gaffes and miscues:

- The loss of two nuclear medicine markers at a hospital in Windsor, Ont., sometime in late 2002.
- The March 2003 disappearance of five electron-capture detectors from Ontario's University of Guelph.
- A vanishing vial of sodium iodide that appeared to have fallen off a courier truck en route from Kirkland, Que., to Saskatoon in October 2003.

Canada is not alone in struggling to keep tabs on radioactive items in the warehouses, cabinets and trucks of licensees.

Between 1993 and 2005, the IAEA collected reports from member states, including Canada and the U.S., of more than 827 confirmed incidents of illegal acquisition, possession, transfer or disposal — whether accidental or not — of nuclear and other radioactive materials.

In Canada, a federal initiative has used computer modelling to examine the likely effects of a dirty bomb depending on the materials and location involved. Much would depend on whether the radioactive source was in easily dispersable liquid or powder form.

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