

## Waste management problems and solutions

# Let's dispose of our disposable culture

By NANCY SMITH.

The city of New York generates 25,000 tons of solid waste a day.

That's right - a day.

We live in a throw-away culture. When something breaks down, wears out, or simply becomes less stylish, it ends up in the garbage can and then in a landfill.

The landfills of North America are rapidly filling up, and much of the waste consists of toxic, hazardous materials that eventually seep into the soil and water.

Recycling, safely incinerating waste, and building landfills with impermeable liners to prevent seepage are all viable solutions to effective waste management.

Many people, with justification, oppose incineration stating that it creates a major health hazard. Burning metals can emit arsenic, cadmium, lead, mercury, and nickel - some of which are suspected carcinogens - into the air. Glass ends up as contaminated ash, and plastics that contain PVC's (polyvinylchlorides) create dioxin and toxic acid gases when burned.

Yet several steps can be undertaken to reduce these problems. Simply pre-sorting and removing these materials before burning as well as installing industrial scrub-

bers in the incinerators can make a big difference.

Although incinerators are major investments for many municipalities, the cost can be offset by selling the steam energy generated through the burning process, and by selling materials that can be recycled - glass, metals and paper.

The most successful recycling program these days can be found in Japan, where 65% of municipal waste is reused.

Separation of waste begins at residential homes - food scraps, paper, bottles, and cans are sorted and sent to the dump. Over 95% of paper, 50% of glass and 70% of aluminum are recovered. Hazardous materials are stored on a remote island until a method of recycling them is found. Bulky items such as furniture and appliances are sent to rehabilitation centers for repair and are re-sold. Organic waste becomes compost.

While many municipalities still use incineration to control their waste, emissions are greatly reduced through strict health and safety measures. Costs are offset by supplying local recreation and cultural centres with energy from steam powered generators.

Recently, however, this recycling wonder has been threatened by Japan's own prosperity. A

strong currency has allowed industry to buy less expensive, imported raw materials. Consequently, the market value for recycled goods has fallen drastically.

The opportunity exists for an efficient, safe and integrated

waste management programs, but we have to re-evaluate the way we live as well. We need to stop overpackaging goods and using disposable diapers. Government, business, and consumers can support the recycling movement by

purchasing goods that contain recycled material.

Steps must be taken and soon, or else we will find ourselves smothered in garbage.



## Low level flying more hazardous to civilians than to pilots?

By RALPH KUHNENKAMP

Warning: Military low-level flying is hazardous to your health!

Canada allows several NATO countries (North Atlantic Treaty Organization) to practice low-level flying of tactical fighter jets over large parts of Labrador/Eastern Quebec. The number of flights (about 8000/year) is supposed to increase to 40,000/year, if Goose Bay becomes a NATO Tactical Fighter and Weapons Training Centre. Air forces, training low-level flight pilots in central Europe, are allowed to export their activities to Canada.

The government of the Federal Republic of Germany (FRG), under increasing pressure from the public for the last 20 years, has had to reduce most of the 90,000 low-level flights (between 250 and 1500 feet) conducted by NATO forces and the 'Luftwaffe'. The idea is to dump this activity on other countries and their people.

Citizens in Germany have been living with the damaging noise for several decades and they want those flights abandoned totally. Besides the impact on health and every-day life, people also recognize the very offensive character of low-level flying jets. Flying undetected, to bomb targets deep in enemy country, is not a defensive military strategy.

Impact on health is not only recorded by numerous personal experiences but also through 2 major health studies by the Federal Health Agency of the FRG. Noise from military aircraft

at 100-250 feet is generally above the pain threshold for humans - 110 decibel (dBA), with peaks up to 140 dBA -. Although a person might not experience immediate ear damage, the sudden impact will cause severe involuntary and unhealthy responses.

One key factor is the 'startle effect' caused by the very sudden increase of 40 or more dB in less than half a second. Unlike loud music or other noise, perhaps equally damaging to the ear, nobody can prepare themselves for an approaching low-level flying jet. There is no time to cover your ears because the 'bang' occurs within parts of a second. The startle response is impossible to avoid and is always triggered regardless of the number of times the jets fly over.

Children especially are traumatized by such sudden noise. Many families in the FRG try to keep their children inside on sunny (!) days, because military overflights upset their kids for hours (there is no low-level training in bad weather, and no war either?!).

Exposure to noise from low-level flying aircraft can lead to behavioral and stress related disturbances, from higher blood pressure, chronic insomnia, headaches and lower immunity levels, to extreme fright. Psychological depressions result from a form of 'helplessness' associated with interferences of people's every-day life.

Many other effects of military jet training have an impact on people and their environment.

With a future NATO-base, sonic booms will not only occur at levels higher than 30,000 feet, but aircraft will also be allowed to fly supersonic down to levels of 50 feet creating an immense shock-wave.

Training will include electronic warfare methods, generating radio frequency radiation. Its impact on people is not yet fully understood by scientists. Lasers will be used to guide bombs with the possibility of direct injuries to people through accidental exposure. An increased number of flights would most likely increase the number of accidents, and certainly increase the possibility of hurting people directly.

All these known negative impacts seem to also have an effect on wildlife, documented by several studies. A U.S. Fish and Wildlife survey (1988) lists such impacts as startle behaviour, panic, mortality due to sonic booms and avoidance of habitat.

There is certainly more need for scientific research, since many surveys lack proper funding compared to the \$6 million spent by the Canadian Department of Defence to produce an Environmental Impact Study on the NATO base in Goose Bay.

We cannot trust the military to be honestly interested in clear, exhaustive, long term studies and we cannot accept their disregard for damage caused by low-level flying.

The Muse



ating the lake. It's  
re doing it."

watersheds.  
Farmers can help protect sur-  
water by establishing green-  
s, using good cropping tech-  
ues and using proper chemical  
manure management.

by Candi Mackey