

CHIROPRACTIC: On trial • BANK MERGERS: The battle begins

CANADA'S WEEKLY NEWSMAGAZINE

Macleans

SEPTEMBER 21, 1998

STARR CROSSED

THE REPORT

'A strategy
of deceiving
the American
people'

THE AFFAIR

'I knew it
was wrong'

By Andrew Phillips

12040 30 005
MME0012649117
MR D KEYES
1004 DILT RD
RR 2
DUNNVILLE
ON N1A 2W2
H2
R
0276 02
91 08MAR99

A time to mourn

Dear Sir: This little stuffed toy whose label identified it as a Lion King was retrieved Friday, Sept. 4. It was carefully washed with the hope that it may provide some family member with solace as a tangible connection with the child to whom it belonged. My son, who has a seven-month-old daughter, informed me that this was Simba, a Disney character in The Lion King who grows up to become the Lion King at the end of the movie. Tragically, this is no movie and there is no happy ending. The owner of this baby lion won't grow up.

—Capt. Harvey E. Adams, in a note he attached to a stuffed animal after it was retrieved from the Swissair 111 crash site near Peggys Cove, N.S.

SCENES OF REMEMBRANCE:
Amid the grief, acts of human kindness, consideration and generosity

BY BRIAN BERGMAN

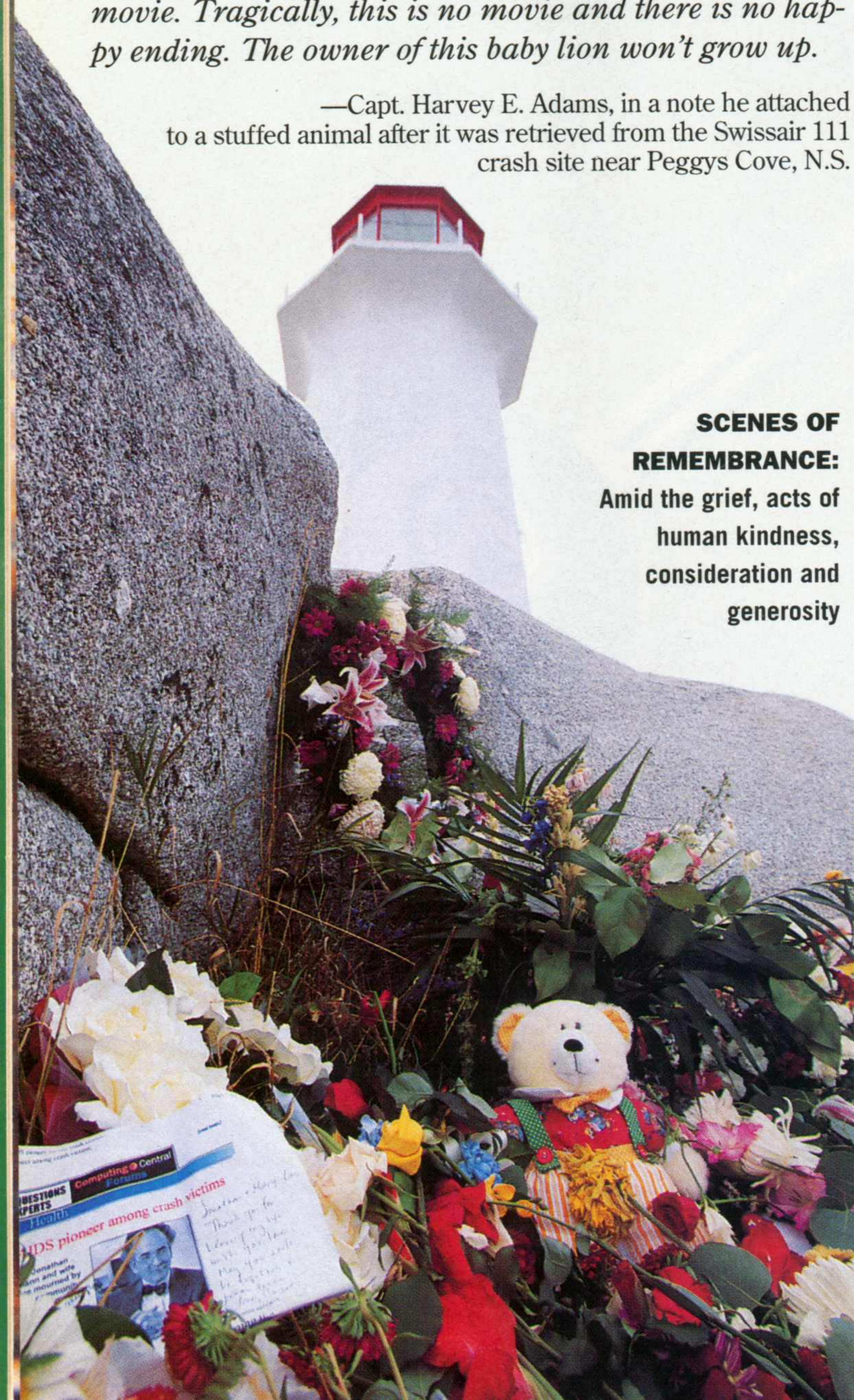
The kindness of a coast guard captain who wants to provide some small measure of comfort to strangers who may live a world away. The consideration of a chief medical examiner who takes time out from the grisly task of identifying and cataloguing body parts to meet with grieving relatives and who later chokes back tears as he recounts the experience. The generosity of a woman who has just lost her father and stepmother, and who addresses a public memorial service not to vent her grief, but to express her heartfelt gratitude for how Nova Scotians—and all Canadians—responded in a time of crisis.

These were among the points of light that pierced the pervading gloom in the aftermath of the Sept. 2 crash of Swissair Flight 111, which killed all 229 people onboard. In a week when investigators sought answers to the big questions—had the plane crashed as a result of human error, mechanical failure or a combination of the two?—many others touched by the tragedy appeared to be acting on an instinctive human need to *connect*. "It was like it happened to your own family or next-door neighbor," says Lloyd O'Neill, a Roman Catholic priest from Halifax who was among dozens of clergy and psychologists who counselled victims' relatives from as far afield as Switzerland and Saudi Arabia. "All of a sudden, we were brothers and sisters in need."

The fatal incident that brought these strangers together began when a routine flight between New York City and Geneva went abruptly awry less than an hour after takeoff on Sept. 2. At 10:14 p.m. Atlantic time, Capt. Urs Zimmermann told the air traffic control tower in Moncton, N.B., that there was smoke in the cockpit of his Boeing MD-11 aircraft. Just 16 minutes later, the plane smashed into the sea, 14 km off of Peggys Cove.

For the hundreds of transportation safety and police investigators assembled in Halifax last week, the central puzzle remained the same. What had gone so wrong, so quickly, to make an experienced crew working for an airline with a commendable reputation for safety standards lose control of their aircraft? Any comprehensive answer to that question will be impossible until the information on Swissair Flight 111's cockpit voice recorder, recovered by divers at week's end, is analyzed. In the meantime, evidence began to trickle out that provided some clues as to what may have sealed the fate of the aircraft's passengers and crew.

Some of the most revealing information came from the full transcript released last week of the conversations that took place between the pilots and air traffic controllers during the flight's final moments. It suggests that, despite the initial reports of smoke at 10:14, Zimmermann and his crew felt they had the situation under control. After declaring "Pan, pan, pan" (a dis-



PHOTOGRAPHY BY PHIL SNEIJMACLEAN'S



Relatives of the victims of Flight 111 coped with their loss as the investigation continued

tress signal less urgent than mayday), Zimmermann requested diversion to Boston, fully 555 km away. And even after accepting the air controller's suggestion of the much closer Halifax airport, the pilot clearly felt he had enough time to execute a 180-degree turn and head out to sea, away from the airport, in order to dump fuel and lighten his load for landing.

But a scant 10 minutes later, the situation had become desperate. At 10:24, in the final radio communication between the plane and the control tower, Zimmermann declared an emergency and said, "We have to land immediate"—not "immediately," as the initial and incomplete transcript released by investigators on Sept. 5 indicated.

Investigators had hoped that the plane's flight data recorder, retrieved from the ocean's depths on Sept. 6, would shed light on the last chilling moments of Flight 111. But the instrument—which provides information on more than 100 aspects of the flight, including the state of the electrical system—stopped recording as the plane descended below 3,000 m altitude, roughly the point of the last radio communication. Vic Gerden, the Transportation Safety Board's lead investigator, told reporters that this raised "a strong possibility" the aircraft had suffered an electrical shutdown that would have left the pilots flying—if they could fly at all—literally in the dark, using only manual controls. If that scenario proves true, even the cockpit recorder's information may reveal little, if anything, about the plane's final seaward trajectory.

Other details disclosed by investigators appeared consistent with the theory of a rapidly deteriorating series of electrical problems that ultimately confronted Flight 111's pilots with crippling smoke and heat conditions. Examination of the few fragments of the airplane recovered by week's end revealed visible signs of heat stress in the cockpit, including parts of overhead panels that were so hot that material melted and dripped onto one pilot's lambskin seat covering.

Evidence of electrical failure on Flight 111 immediately led to a flurry of speculation about its source. Much of this centred on the possible role played by the wiring aboard the MD-11, which was laden with an insulation known as Kapton—a widely used aviation product the U.S. military banned 11 years ago because it was prone to cracking that caused fires. (Another MD-11, flown by China Eastern Airlines, crashed at week's end in Shanghai after the front landing gear reportedly jammed, resulting in several injuries.) And while some aviation analysts concentrated on possible mechanical failures, others were already blaming the tragedy on human error.

Former American Airlines pilot Don Tynan told reporters Zimmermann wasted precious moments after acknowledging the presence of smoke by veering out to sea to dump fuel—a standard procedure when contemplating an early landing. "He shouldn't have screwed around," declared Tynan, who in 1979 safely landed a passenger jet without clearance at an

CANADA

airport outside of Washington after a bomb exploded in the cargo hold. "Rules are meant to be smashed if you are trying to avoid smashing a bunch of people on an airplane."

However, John Nance, a pilot and aviation analyst from Tacoma, Wash., told *Maclean's* that such accusations are both premature and irresponsible. Nance, who has written several books on airline safety, agrees Zimmermann could have opted for "a rocky, though not particularly dangerous," straight-in approach to the Halifax airport. But he says the early indications are that the aircrew believed they had the smoke situation contained and were following the normal procedures for dealing with it. And though something clearly went terribly wrong in the ensuing moments, Nance says, "the most dangerous thing in an accident investigation is to go stampeding towards a conclusion" before the facts are in.

If last week's developments were any indication, that may be a long time coming. As of Saturday, only about two per cent of the MD-11 jet had been recovered from the icy Atlantic waters and just four of the 229 crash victims had been positively identified. But diving efforts had begun to try to retrieve many of the corpses trapped in the plane's fuselage (searchers had pinpointed five sections of the plane, lying in about 60 m of water). At the same time, the USS Grapple—the ship that helped in the deep-sea salvage of the downed TWA Flight 800 off Long Island in 1996—was moving into position off Peggys Cove to begin lifting up the sections.

For those involved in the ongoing recovery effort, the horrific sights they have been exposed to will not soon be forgotten. In ship-to-shore interviews with *Maclean's*, Capt. Jim Dockerill of the Canadian Coast Guard vessel Mary Hichens—one of 14 navy, coast guard and RCMP vessels regularly patrolling the wreckage site for floating debris—described the assignment's emotional toll. Beyond the grim task of retrieving body fragments, Dockerill says it is the personal effects of the victims—and particularly of the children—that are most disturbing. "With wallets, passports and the



THE GRIM TASK CONTINUES: Troops comb the Nova Scotia shoreline for debris from the crash; personnel onboard HMCS Kingston (below) prepare to deploy a side-scanning sonar



A REKINDLED DEBATE OVER WIRING

As Urs Zimmermann, the captain of Swissair Flight 111, levelled his Boeing MD-11 jet out at 9,900 m, his 215 passengers settled in and waited for the attendants to serve supper. Soon after, Zimmermann noticed the first curls of smoke drift into the cockpit—and 16 minutes later, the plane slammed into the Atlantic Ocean off Peggys Cove, N.S. Last week, investigators examining pieces of the wreck said metal shards had been twisted by an

intense heat, while material above the pilots' seats had melted—possible evidence that a rapid and deadly electrical fire had ripped through the flight deck. And those revelations added to the growing debate over just how safe are the nearly 240 km of wires running through a large jetliner. "Because of these horrific crashes," says Ed Black, a former U.S. defence department airline wiring expert, "the wiring issue has come out of the closet."

Over the past eight years, various types of electrical problems have forced U.S. airlines to make more than 1,000 unscheduled stops, including two fire-related emergency landings each week. And as early as October, the U.S. Federal Aviation Administration plans to announce a sweeping inspection program to examine the wiring on more than 22,000 aging passenger jets, such as DC-9s and Boeing 737s. (Although MD-11s only came into service in 1990, they will also fall within the FAA study.) At the centre of the debate is a product called aromatic polyimide tape, which is widely

like, I've made a point of not even opening them," he says, "because as soon as you start to relate to something as an individual you become overwhelmed."

As the search extended to the ocean bottom, Dockerill knows that even more gruesome discoveries lay ahead. But Dockerill quickly adds that the search team members are professionals who are keen to see the job through in the hopes of helping victims' relatives. The same mixture of grim determination and compassion was evident last week at the makeshift morgue at CFB Shearwater where a staff of about 200 attempted to identify victims' remains using such aids as X-rays, dental records and DNA samples. In addition to overseeing the round-the-clock operation, Nova Scotia chief medical examiner John Butt also met with several family members of the victims to explain why they could not claim the bodies of their loved ones. "I spend a lot of time sitting down and making contact with them," said Butt during one of several media briefings, "actually touching them and looking them in the eye."

Not everyone swept into the post-crash maelstrom acted so nobly. Civil litigation lawyers, most of them American-based, were clearly open for business. On Sept. 9, the first lawsuit was launched by boxing legend Jake LaMotta, who lost his son and business partner, Joseph, 49, in the Swissair crash. LaMotta is seeking \$190 million in actual and punitive damages. In the aftermath of a major air disaster, litigation is both inevitable and often beneficial to the aggrieved parties. But the haste with which the U.S. lawyers (many of whom stand to rake in up to 50 per cent of any eventual awards in contingency fees) acted in the wake of the Swissair crash struck some observers as unsavory—if entirely predictable. "Lawyers are pushing would-be clients into action because they can negotiate lucrative contingency fees," says Michael Milde, a professor and immediate past director of McGill University's Institute of Air and Space Law. "These ambulance chasers are a shame to the profession."

Through it all, the victims' families—and the communities along Nova Scotia's south shore who had reached out to help them—continued their attempts to cope with the tragedy. During the course of the week hundreds of grieving relatives from Europe and the United States arrived in Halifax, then made the 45-km journey along winding roads to the scenic granite promontory at Peggys Cove. There, they threw flowers in the water, picked

up pebbles to take back home, or simply gazed out at the sea.

On Wednesday night, a public memorial service at Indian Harbor, near Peggys Cove, was attended by more than 175 family members of the victims, as well as hundreds of ordinary Nova Scotians. "It's nice to be here for the families," said Andrew Lapointe, a local volunteer fireman who had participated in the initial land search in the hours after the crash. "I feel they are a part of me now." As Prime Minister Jean Chrétien and Swiss President Flavio Cotti looked on,

a choir from St. Margaret's Bay Elementary School opened the service with a popular song that evoked the bond that had developed between the foreign mourners and their host community: "Lean on me when you're not strong/I'll be your friend/I'll help you carry on."

The sunset ceremony featured speakers and hymns from four faiths. But perhaps the most stirring words came from Claire Mortimer, whose father, retired *New York Times* executive John Mortimer, and step-mother Hilda perished in the crash. In an impromptu address, delivered in a steady, even voice, Mortimer recalled how local fishermen had scrambled into their boats in the dark hours just after the crash to look for survivors. "Your sacrifices have not gone unnoticed," she said. "Your outpouring of help will not be forgotten." Mortimer later told *Maclean's* she had found the service cathartic. "I think we needed this," she said. "It gave us a feeling, some sense, of closure. Now, the grieving process can begin."

It will not be easy—either for the stricken relatives or the Nova Scotians touched by their sorrow. O'Neill points out that, because of the intense media interest in the crash, victims' relatives may be reminded of their loss for years to come, when they pick up a newspaper or watch the evening news. "They will relive the event and that will generate the emotional pain," he says.

As for the fishermen who responded to the plight of Flight 111's victims—as well as the police and military personnel who are still sifting the wreckage for clues—they will also need time to make peace with the tragedy that happened in their backyard. "We all saw too much horror that night," says Ralph Kerrivan, a retired fisherman from Lower Tantallon, who jumped on a friend's boat to respond to the crisis on Sept. 2. "Seeing death like that up close, it plays on your mind. No one will get over this easily—if at all."

With SUSANNE HILLER in Peggys Cove

A tale of two aircraft

Boeing's MD-11 jetliner is generally considered exceptionally reliable, with only two fatal crashes in its eight years in service. But an analysis of reports filed with the U.S. National Transportation Safety Board reveals a relatively high number of potentially dangerous problems associated with the plane. Halifax doctor Alex Richman, who conducted the study, compared the MD-11's reported difficulties between 1991 and 1995 with those filed concerning the far more frequently flown Boeing 757, an aircraft similar in age:

	MD-11	757
Flying hours	594,000	5,200,000
Number of departures	96,500	2,200,000
Number of planes studied	43	300
Number of safety-related reports filed	167	144
Percentage of planes reporting dumping fuel	23	0
Percentage reporting shutting down engines	37	20
Percentage reporting unscheduled landings	72	51
Percentage reporting vibrations	28	8

used as a covering on aircraft wiring. If it cracks, electricity can arc to nearby material, setting it on fire. "Anytime you get in a plane with these kinds of wires," said Patrick Price, a former wiring expert with Boeing Co. in Seattle, "it's like taking an incendiary bomb on board."

In many cases, FAA inspectors will be looking at a brand of aromatic polyimide product known as Kapton. Developed by the U.S. chemical giant DuPont, it dominates the polyimide market. But in 1982, the U.S. navy stopped using it in its jet fighters when cracks in wires coated with Kapton

were linked to on-board fires. And according to Susan Bradley, a spokeswoman for Boeing, Kapton was the primary coating used on the wiring in Swissair Flight 111. When a fault develops in Kapton, electricity arcs along the wires in a phenomenon known as flash over, which burns at a searing 1,000° C. The fire can be so hot that it will even cut through metal steering controls, and Price and other critics suggest that just such a fire may have burnt through Flight 111's auxiliary power cables.

Since 1993, however, industry experts say Kapton has been improved by wrapping

it in a tough Teflon coating. The new product is still widely used, although some manufacturers have been phasing it out (Montreal-based Bombardier Inc., for one, does not use Kapton in its latest generation of passenger jets.) Boeing still insists that older versions of the product are safe. Said company spokesman John Thom: "Kapton was and is certified for use on commercial airplanes." Even so, FAA officials say they may soon order its removal from hundreds of planes.

TOM FENNELL with DANYLO HAWALESKA