

# AVRO ARROW

*FULL SCALE  
MODEL*

BY  
ALLAN JACKSON  
WETASKIWIN

5576















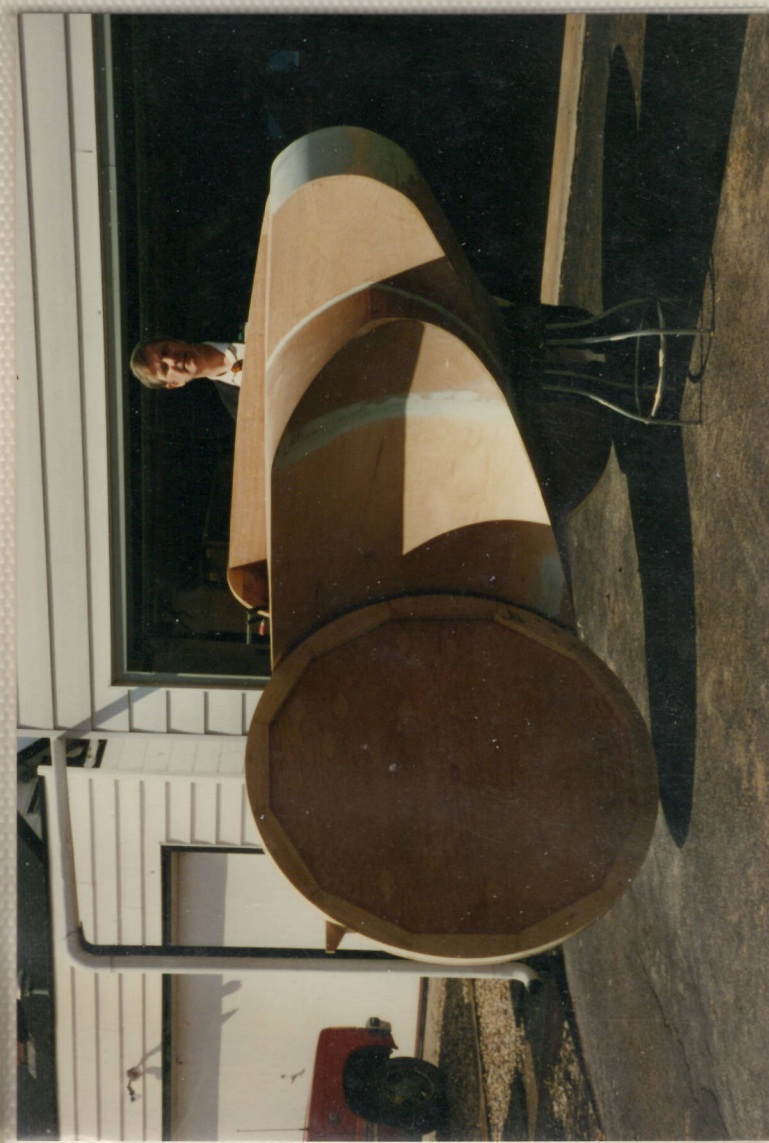


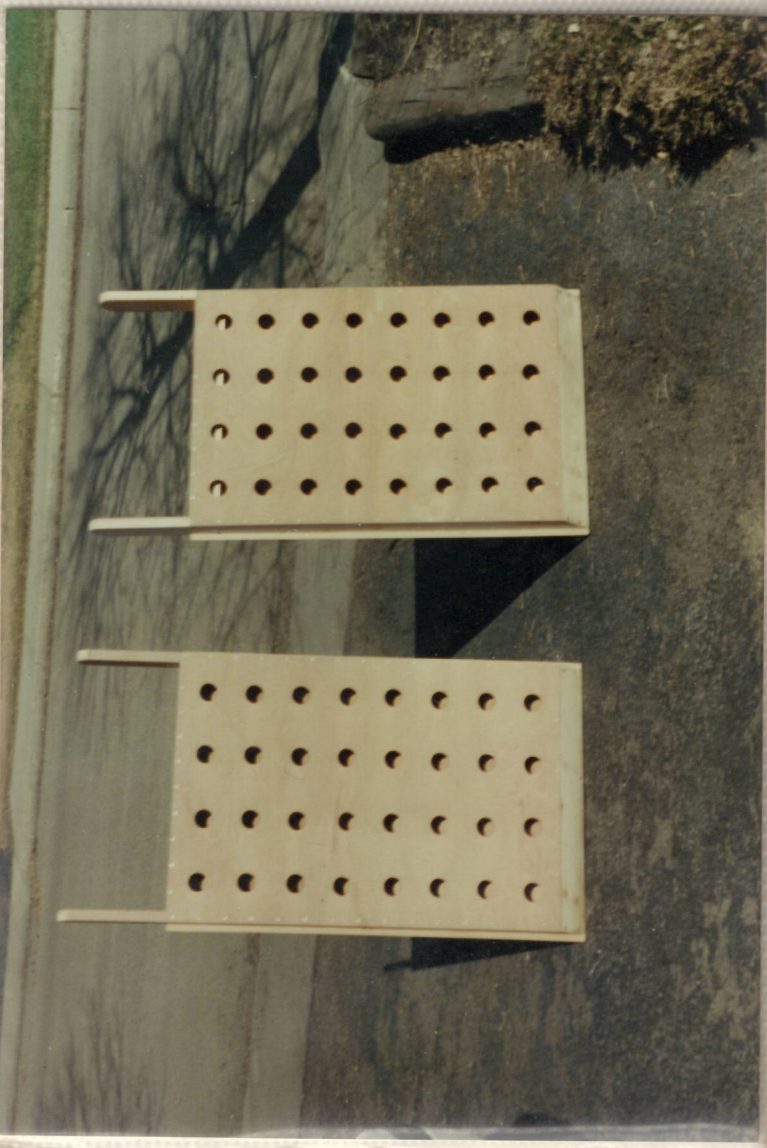














The Edmonton Sun, Saturday, July 6, 1996

## TV History ON THIS DAY

AMERICA'S  
TOWN MEETING,  
A LONG-RUN-  
NING RADIO  
SHOW THAT

DEBATED TOPICAL ISSUES ('ARE  
WE HYSTERICAL ABOUT COMMU-  
NISM?'), TRANSFERRED TO TV FOR  
A FOUR-YEAR RUN THAT ENDED ON  
THIS DAY IN 1952.

## Fine TUNING

TONIGHT: The  
Winnipeg Blue  
Bombers host the  
B.C. Lions and TSN  
(Cable 16, 26) has  
the CFL action at  
6:30.

...  
FINE TUNING: Win  
or lose, Canada's  
Olympic athletes get  
to party.

On Friday, July 19,  
the night before the  
Olympic Games get  
rolling in Atlanta,  
CBC-TV airs the  
Canadian Olympic  
Gala: Salute to the  
Athletes!

Leslie Nielsen and  
Sonia Benezra host  
an evening of  
performances by the  
likes of Ashley  
MacIsaac, Brent  
Carver, George Fox,

EXPRESS 37  
Miniseries explores life, death of Canadian super jet

# Broken Arrow

WINNIPEG (CP) — Canada's Avro Arrow, possibly the fastest jet aircraft of its time, was mothballed in 1959, its prototypes destroyed, its blueprints shredded.

Or was it?

A television miniseries being shot in Winnipeg suggests otherwise.

The four-hour production, which stars Dan Aykroyd and airs on CBC early next year, tells the tale of one of Canada's worst national failures, but ends with a hopeful message.

"Was one plane saved? We've developed a bit of a myth in the film but it's based on some evidence," said screenwriter Keith Ross Leckie.

John Diefenbaker's government scrapped the Arrow during the Cold War under pressure from the American government. The public was told the interceptor jet was a dud and all traces of it were supposed to have been destroyed.

But after eight years of research, Leckie is convinced the unique technology from Canada's Arrow was moved across the border, where it was essential in putting a man on the moon.

"It was the Canadian influx (of scientists) after the Avro that got the U.S. space program going again," said Leckie, also a pilot.

Engineers told him the ghost of the Arrow can also be seen in the U.S. space shuttle, the Stealth bomber, the supersonic Concorde, the vertical-takeoff Harrier jet and the U.S. lunar landing module.

There are even a few aging jet fighters in China, the Shenyang J-8s, which look strikingly like the Arrow in design, except they have Chinese engines and don't go nearly as fast, he said.



A mock-up of the Avro Arrow is rolled out of a hangar in Winnipeg on Thursday.

- CP

The J-8s were designed by Grumman Aviation, then in partnership with Avro. "In truth, it was an incredible aircraft," Leckie said of the Arrow. "It was doing speeds the Americans couldn't touch."

Earlier this week, a mock-up of the Arrow was unveiled in celebratory style as makers of the miniseries shot a scene of the plane being rolled out of its hangar before hundreds of actors portraying Avro employees and onlookers.

The full-scale model was begun as a pet project by Allan Jackson of Wetaskiwin six years ago. It will be returned to Wetaskiwin after the miniseries is finished.

The moment of the unveiling was *deja vu* for Derek Woolley, one of the Arrow's original flight-test engineers.

He was there in October 1957 when high-rolling Avro president Crawford Gordon staged the actual rollout of the Arrow, complete with marching bands and the world's press taking notes.

"When the aircraft stopped, two of us grabbed (the pilot) and put him on our shoulders and a photograph was taken which has been in just about every book on the Avro Arrow," recalls Woolley.

Despite his showbiz approach, Gordon's attempt to put his plane on front pages around the world failed spectacularly.

The Arrow's premiere was upstaged by the launch of Sputnik, the first satellite to go into orbit.

The Arrow was cancelled by Parliament on Feb. 20, 1959. About 50,000 Canadians were thrown out of work.

Hundreds of the country's best scientists and engineers went to the U.S.



**Neal  
WATSON**

ON ASSIGNMENT

# An Arrow for the making

By Keri James

On April 30, 1996 three trucks left Wetaskiwin carrying a precious cargo.

Enormous pieces of wood and steel, carefully strapped down and covered with tarps to protect them from the weather.

The past nine years of Allan Jackson's life...

These pieces of wood and steel will become a full-scale replica of the CF-105, the Avro Arrow. Canada's dreams of technological superiority were pinned to the Arrow, and tragically the Arrow was killed in infancy.

They will be used in filming a T.V. mini-series about the making of the Arrow, of which six were completed, then hacked and torched to scrap. The tragedy of this still captures the imagination of story-tellers, just as it did Allan Jackson's nine years ago.

Allan began making aircraft models at age 11, and later took an aircraft engineering course at the Southern Alberta Institute of Technology in Calgary. But on Feb. 20, 1959 he became disillusioned.

"Fourteen thousand people were laid off that Black Friday," he says. "There went the jobs. What were a bunch of young green guys like us going to do?"

He left aircraft engineering, and took up other challenges. He never thought about aircraft again until the day he walked into a bookstore in 1987.

"I stumbled across *Arrow*, the book put out by the Arrowhead

people. I started leafing through, found it quite technical and well illustrated, so I bought it."

He took it home, read it and re-read it, and started doodling at his kitchen table.

"I thought it might be kind of neat to duplicate what they have in Ottawa, just to have some representation in Western Canada. From there the project kind of got out of hand."

He began assembling scraps in his garage, built his first intake, and completed the nose section (including intakes and cockpit) after some 2,000 hours of work. It appeared at the last Namao airshow, and was put on display at Reynolds-Alberta Museum in Wetaskiwin.

After that he couldn't leave it alone. He began toying with ideas to build the rest, made more doodles, drawings and plans, and a window of opportunity presented itself: shop space, with an overhead crane, to fabricate the main frame over the winter of 1994-95. Come spring, he hauled 1,500 lbs of welded steel out of the shop, and assembly took all of two hours.

"From the beginning, it seemed it was destined to be. I've had no frustrations, and everything fits easily. I've had encouragement from every quarter, and help comes along just when I need it."

Allan believes in accuracy, and so far it's been a one-man job. He doesn't cut corners, but he's using the simplest techniques and cheapest materials that will do the job.

"It's just a great big Trojan Horse. It will look and sound like the real thing on the



Allan Jackson rubs down part of the frame before applying primer.

outside, and without Plexiglas panels, who cares about the rubble inside?"

Allan was torn when the movie moguls first approached him. His passion had carried him through nine long lonely winters, and would carry him to the finish in another five. He was prepared to face the problems of space and manpower that would, inevitably, soon arise.

He *wasn't* prepared for the offer of "help" they brought, that would transplant his project two provinces away! There's still a lot of gestation required before the finished Arrow can be born.

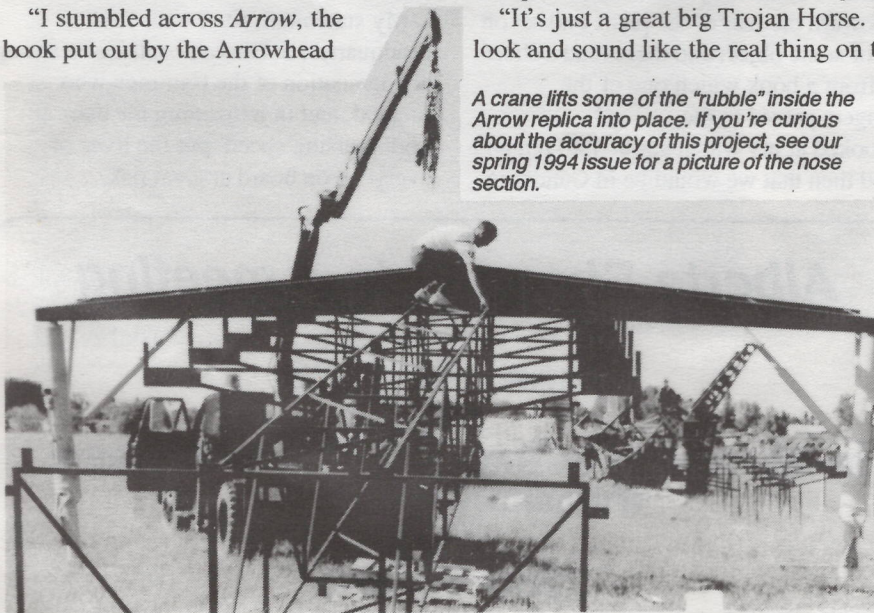
But a finished, full-size Arrow was needed. As designated supervisor, Allan will take time here and there to ensure the work crew understands his hieroglyphics, and his personal standards, for fabricating, blending, sheeting and finishing.

This quiet, modest man, with no other agenda than creating something no one else has been able to, is becoming a celebrity. This may surprise him.

"I'm a nuts and bolts man. I only work on one thing at a time. People mostly think I'm crazy if they even know what I'm doing. Rumors have got out, and it's like, some guy kicking frozen hockey pucks down the street is doing *what?*"

But the National Film Board was there to record the loading and the move, and Jim Floyd, VP of Engineering for Avro Canada, and Member of Canada's Aviation Hall of Fame, will probably be there to see this Arrow at roll-out.

A crane lifts some of the "rubble" inside the Arrow replica into place. If you're curious about the accuracy of this project, see our spring 1994 issue for a picture of the nose section.



# Airy dreams take off

## Avro Arrow filmmaker finds model in Alberta

By Brad Oswald  
Entertainment Reporter

**C**ALL IT a convergence of flighty dreams.

In a medium-size city on the eastern edge of the Canadian Prairies, movie producers are making plans for a TV mini-series about the Avro Arrow, this country's most celebrated and controversial aircraft project.

They have a script. They have a star. What they don't have, however, is an airplane.

Elsewhere on the Prairies, in a little town in the shadow of the Rockies, a man labours in solitude on a pet project — a full-scale model of the Avro Arrow — which he doesn't imagine he'll finish before the turn of the century.

Almost by chance, they learn about each other. A deal is struck to transport the skeletal frame of this huge, flightless bird to Manitoba.

And this week, in a hangar near the Winnipeg International Airport, a crew of 10 carpenters and craftsmen is working feverishly to complete in three weeks what would have taken Albertan Allan Jackson until the year 2000.

"They get at least a 3,000-hour head start, because of all the work I've put into it so far," said Jackson, a steel industry sales estimator who lives in Wetaskiwin, a town about 60 kilometres south of Edmonton.

"And I'll get to see them finish the things that I wasn't able to do because of the time and money involved. They gain. I gain. Everybody gains."

The goal right now is to get this model of the Arrow completed by shortly after June 12, when principal photography begins on the four-hour mini-series, which stars Dan Aykroyd, Sarah Botsford (E.N.G.) and Aidan Devine (Not Worth).

The two-part drama, directed by Don McBrearty (Butterbox Babies) is a co-production of Winnipeg's John Aaron Productions and Toronto-based Tapestry Films and The Film Works. The Arrow is scheduled to air early next year on CBC-TV.

Jackson, 59, was in his 20s when the CF-105 (Arrow) interceptor jet project was abruptly cancelled in 1959. He has maintained a casual interest in airplanes and model building, and decided to take his off and on hobby to a much larger scale in 1990, after reading a book about the Avro Arrow.

"I was in an aeronautical engineering

program in Calgary at the time the Arrow was cancelled," he said during a telephone interview. "That kind of destroyed my hopes of getting into the industry. I went into another line of work, but I never forgot about it."

Self-financed and working alone in his spare time, just five or six months of the year to avoid burnout, Jackson completed the nose and cockpit section of the model in 1993 and was working on the metal framing for the body, wings and tail when The Arrow's producers came calling.

"I had mixed feelings about turning it over to someone else," he said. "But I had reached a point where it was becoming increasingly difficult in terms of shop space, time and money."

Amazingly, he based his model on tiny diagrams in the back of the book he had read, then measured, calculated and extrapolated the proportions up to full scale. When completed, Jackson's earth-bound version of the Arrow will be accurate to within inches of the prototype's actual size.

"It's pretty unbelievable, when you consider what he had to work with," said David Melrose, construction supervisor on the Arrow model.

Yesterday, as workers toiled in a vacant hangar on the southwest corner of the airport property, the model bore a slight resemblance to a well-picked fish on a tree — head and tail intact, with nothing but ribs and backbone in between.

"This thing is a real cut-and-fit job," said Melrose, who explained that the Arrow model measures just over 24 metres in length and has a wingspan of more than 15 metres.

**A**FTER COMPLETING the wooden inner ribbing of the mockup, a plywood and aluminum exterior will be applied and motorized landing wheels installed to make this museum-quality facsimile ready to roll in front of the cameras.

In addition to this full-scale copy, The Arrow's producers are also constructing a pair of two-metre-long, remote-control aircraft to be used in the project's flight sequences.

They hope to shoot some scenes in at least two historic Winnipeg buildings, the old Free Press building on Carlton Street and the CIBC building on Main Street.

After shooting is completed on the mini-series, the full-scale model will be returned to Alberta and put on display in the Reynolds Alberta Museum.



Workers rush to complete Avro Arrow's skeletal model in time to shoot TV mini-series.

Winnipegger, today's start of filming of the CBC mini-series *The Arrow* translates into one frenzied thought — one-time Blues Brother, Ghostbuster and son of Driving Miss Daisy, Dan Aykroyd is somewhere in Winnipeg this very moment.



**DENISE  
DUGUAY**

To the Winnipeg film community, *The Arrow* means steady employment. The \$7.1 million mini-series, co-produced by Winnipeg's John Aaron Productions and Toronto's Film Works and Tapestry shoots for eight weeks (one month with Aykroyd).

But to Derek Woolley, by his own estimation the only person in Winnipeg to have worked on the controversial post-WWII Canadian jet fighter, today is second only in importance to Black Friday itself.

"Eleven in the morning, Friday, Feb. 20, 1959," 69-year-old Woolley says with the precision of a career aeronautical engineer, recalling the day Tory prime minister John Diefenbaker axed the *Arrow*.

"We had just gone for coffee," says Woolley, who was the flight test engineer on the Toronto-based project, "and were back at our desks when the public address system came on... It's just been announced in the House of Commons. The *Arrow* has been canceled, effective immediately."

Since then, *Arrow* workers and observers, dubbed *Arrowheads*, have been divided into two camps.

Some welcomed the cancellation of a project that was ridiculously over-budget (cost per jet climbed from about \$2 million to \$12.5 million), even if it did boast near-record breaking speeds and advance computer technology.

To the 14,000 laid off (Woolley was one of 100 engineers kept on while 1,500 packed up their desks) and other supporters, it was either cowardly, insane or a vendetta against the Liberals, who launched the project and, specifically, against fierce Liberal *Arrow* company head, Crawford Gordon (to be played by Aykroyd).

This passion spurred rumors that persist today that one of the six *Arrows* survived Dief's wrecking order. "That's not true. My office overlooked the planes. I saw all six cut up," he says, adding only one front section remains in Ottawa's National Museum.

Sitting comfortably in his Charleswood home, five years retired from his last job as Boeing's director of engineering, Woolley says 37 years has cooled his Black Friday rage.

"If you asked me at the time, there was only one thing that mattered — technology, and technologically, (the *Arrow*) was at the forefront of the world aeronautical industry."

His theory: "The western Tories were going to get those Liberals," he says recalling a political cartoon that showed Diefenbaker flattening the *Arrow* with a flyswatter, "gatcha."



**EXPERT WITNESS:** Woolley checks out replica of the controversial jet fighter.

# Unbroken Arrow

## Aykroyd film sends hopes soaring

Whatever the motivation, the cancellation of the *Arrow* sapped Canada's aeronautical brain trust and doomed itself to the international sidelines. The national corps of engineers plummeted from 9,000 in 1957 to a current level of about 100. "Of all my immediate friends, I was the only one to stay in Canada. Thirty of them went to NASA to work on the Mercury and Apollo programs."

He is not, however, blind to its flaws.

"From an economic point of view, I'm not so sure the *Arrow* was a good bet. I have no doubt the management of the *Arrow* were a lot to blame for the demise. They thought they were all-powerful and did a lot of arrogant things."

Born and educated in England, Woolley was too young to fight in WWII, but he was raised on its lore and inspired by its aeronautical advances. To him, Canada's *Arrow* was a clear shot to the lead of the world aerospace industry.

So he, like other so-called *Arrowheads*, are greeting this mini-series with mixed feelings.

He is glad the story is finally being told. But, with a brief red-hot reference to the controversial CBC war documentary *The Valour And The Horror* ("I totally disagreed with it"), he says he's also wary.

"It depends what political slant they take, but hopefully, it will be good entertainment," he said.

However the full-size *Arrow* model got his approval. Visiting it yesterday for the first time, he was clearly impressed. "They've done a very creditable job... especially on THE COCKPIT."

THE WINNIPEG SUN Wednesday, June 12, 1996

"THE ELECTRIC MOTORS  
WORK JUST FINE"  
EVEN BACKS UP?

# Opening Notes

Edited by BARBARA WICKENS

## Helping a Canadian legend to take flight

It was a tall order. The producers of *The Arrow*, a CBC mini-series now being shot in Winnipeg, had a great Canadian story and an established Canadian star, Dan Aykroyd. But in preparing the drama about the development of the Avro Arrow jet fighter, the producers still had to cast the central role—the plane itself. After Ottawa's controversial cancellation of the Arrow in 1959, the last of the jets were chopped up and sold for scrap. Deciding that they would have to build a

full-scale mock-up of the plane, the film-makers discovered a man who was one step ahead of them. Last fall, through an Arrow Web site on the Internet, they contacted Alan Jackson, 57, an Alberta hobbyist who had spent five years building a mock Arrow in his two-car garage.

A sales estimator for a steel-grating plant in Wetaskiwin, 70 km south of Edmonton, Jackson



MARIE GROSSMAN

says he devoted about 3,000 hours of his spare time to building the life-size model, out of steel, wood and fibre glass. It was 80 per cent complete when he agreed to rent it to the film-makers, who would finish the job in Winnipeg. It took three tractor trailers to trans-

Arrow model; Aykroyd (left); 3,000 hours to construct in a two-car garage

port the components of the plane, which is 80 feet long and has a 50-foot wingspan. It is not flyable, but can taxi under its own power. "I guess I had a dream," says Jackson, whose teenage aspirations to be an aerospace engineer were dashed with the cancellation of the Arrow program. Now, 37 years later, his dream has taken flight—not in the sky, but in the raising of a Canadian legend.

## Computer crime-solver

Partway through 1990's *Silence of the Lambs*, the FBI investigator played by Jodie Foster remarks that no pattern exists to her quarry's killings—if there were, she says, "the computer would have picked it up." When the movie was shot, Foster's character was jumping the gun: no program or computer existed that could determine patterns in geographic data about crimes. That has now changed, thanks to Det. Insp. Kim Rossmo, a 16-year veteran of the Vancouver police department who also has a PhD in criminology. Building on work undertaken for his degree at Simon Fraser University in nearby Burnaby, B.C., Rossmo has developed software that sifts through thousands of de-



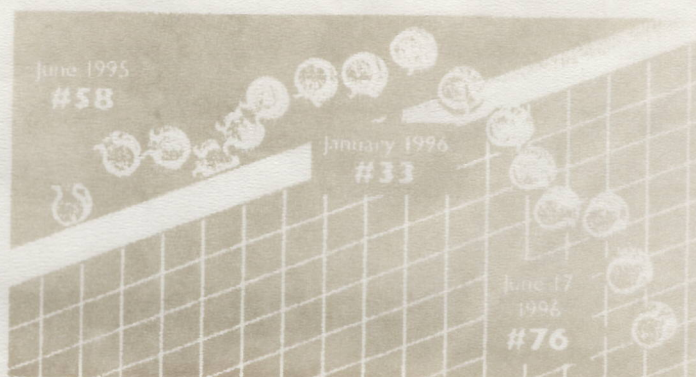
DEAN SCHLOSSER FOR THE GAZETTE

Olson; geographic patterns

tails, such as where a killer is known to have met his victims, committed the murders and dumped the bodies. It then predicts locales familiar to the killer, near where he works or, more often, near his residence. Tested retroactively, for instance, on the crimes of serial killer Clifford Olson, the program accurately pinpointed an area around Olson's home in Coquitlam, B.C. Now, Rossmo is preparing to unleash his digital Holmes in an off-the-shelf version. Backed by Sun Microsystems Federal Inc. of Mountainview, Calif., Rossmo and several B.C. partners have developed a prototype workstation—currently being tested by Vancouver police—and begun talking to potential customers. One sales prospect: the real-life FBI unit in which Foster's rather prescient character was employed in *Silence of the Lambs*.

## The way the ball bounces

When Canadian tennis player Greg Rusedski opted last year to play under a British passport (his mother is British), he annoyed many Canadian fans who had hoped that the six-foot, three-inch left-hander could be a top 20 player for Canada. Still, the Montreal native had his reasons: he stepped in as Britain's top player, which meant there was potential for hefty endorsement money. The world's 47th-ranked player in May, 1995, when he made the swap in time for Wimbledon, he rose gradually to a career high of 33 in January. But since then, Rusedski has tailed off, so that as Wimbledon opens this week, he is the number 2 British player, behind Davis Cup teammate Tim Henman. His rankings since trading in the Maple Leaf for the Union Jack:



The  
Th  
ye  
the L  
who v  
natur  
club r  
ings f  
to rub  
Chrét  
week  
On  
staun  
wife, 2  
and h  
memb  
last w  
ly gre  
cial 2  
events  
gary  
public  
which  
the Pr  
menti  
But w  
Club's  
one O  
ing a v

Beach

Div  
isla

De  
gents  
canno  
ic situ  
are go  
weeks  
to isla  
to the  
memb  
Com  
Stingr  
a lette  
land v  
the St  
for as  
swim  
the tr  
bake s  
De M  
help c