

STRATEGIC PARTNERS



## Introduction



Peter Zuuring is founder and first director of the Arrow Alliance - a growing umbrella group formed to remind and encourage Canadians that they can do great things. The Alliance sponsors major projects of national interest to demonstrate achievement through personal initiative, hands-on participation and team work. The reconstruction of a full-scale flying Avro Arrow is the group's first flag-ship project. The Arrow will be rebuilt in various stages through wood and metal mock-ups and finally an accurate flying reproduction, in the air in 2009, to celebrate the 100th anniversary of powered Canadian flight.

Peter Zuuring is a Dutch born, University of Toronto, Chemical Engineering graduate (67). He has more than 30 years of practical hands-on entrepreneurial experience. From big business petro-chemicals to Gretzky's patented hockey blades, to computer simulation and gaming - he has taken many paper plans from dream to reality.

A significant 1995 Outward Bound wilderness experience got Zuuring involved in Bark Lake, a Haliburton Highlands Leadership Camp for youth and corporate executives. Difficulties in recruiting camp attendees convinced Zuuring that he needed something more significant to stimulate interest in leadership and the development of a CAN-DO attitude. In early 1997 the CBC aired the very popular mini-series on the Avro Arrow, starring Dan Ackroyd. This show gathered the second largest TV audience in Canadian television history with more than 2.5 million viewers for four hours of television. (The first was Donovan Bailey's ten second Olympic 100 meter run.)

This show led directly to a visit of the Ottawa National Aviation Museum. As serendipity would have it, he ran into Jan Zurakowski, the pilot who first flew the Arrow. A subsequent visit to Jan's home convinced Zuuring that the rebuilding of the Arrow would go a long way to solving his needs, let alone that of the bigger picture, one of healing a pivotal wound in the Canadian psyche. As Zuuring researched the technical requirements of reconstruction, many more documents, papers, photos, and plans pointed to important differences in the facts that have spawned, to mythological proportions, the Arrow cult. The findings were so different that the idea of yet another book on the Arrow became a necessity.

**Voila...**

***The Arrow Scrapbook.***

## In a nutshell

The Arrow was a big cold war, twin engine, super-sonic jet interceptor. Conceived and built in the fifties it rivaled the best in the USAF and surprised many with its sophisticated flight systems, speed and growth potential. During six short years A.V. Roe Canada Ltd. designed, made, and flew the massive delta airframe. Uniquely, they also built on their Orenda jet engine experience to create a new, world's best performing, turbine power plant – the mighty Iroquois, producing 30,000 lbs. of thrust while only weighing 4500 lbs. They were designed to work together... yet destiny had other plans!

As the project developed the company's confidence was not matched by their client, the Royal Canadian Air Force. In fact it was not only new development ground but issues such as unexpected delays and costing difficulties, changing threat and a new cost cutting Diefenbaker government which created doubts about the Arrow's usefulness in the minds of the armed forces Chiefs of Staff and others. These doubts were so entrenched that the project was cancelled in their minds a full six months before the government did it officially. Canadians were becoming confident in their foresight and abilities. Much to everyone's surprise, the RCAF/Government not only stopped the project suddenly but instructed the company to destroy all prototypes, plans, photos, tooling

and associated data without delay. The resulting massive layoffs of nearly 25,000 people still ranks today as the largest single day firing in Canada's entire commercial history.

Not suspecting that our own government and its agencies would ever do such a thing Canadians looked beyond our own borders for an answer. It was, and continues to be, a quirk of the Canadian psyche that we believe the USA is out to crush us! *Sleeping beside the elephant* - or something like that! Conspiracy theories are popular and usually not discouraged by authority as it is often convenient. The arrow story in point ... no hard evidence is needed, innuendo will do nicely, thank you!

*The Arrow Scrapbook* sets the record straight. More than three years of exhaustive work are gathered in this complete story. Over 700 reproduced photographs, documents, drawings and letters, many not seen before, reveal the whole sorry mess. *The Arrow Scrapbook* makes for easy reading. The book can be opened at any page and read without getting lost in the chronology of events. An extensive photo inventory of uncovered parts and technical information, quietly stored in Ottawa warehouses, is included.



*The Arrow Scrapbook* - Book number 1

## Why rebuild the Arrow?

At the time it was a symbol of technical competence and a source of national pride. It raised aspirations of a generation. Even today, many Canadians can point to a relative or friend who was somehow connected to the project. A rebuilt Arrow can bring closure for those who were there, many are still alive, and inspire a new generation to set their goals at an elevated level, achieve them and feel a great sense of accomplishment.



## I thought everything was destroyed.

The Alliance has uncovered hundreds of technical manuals, drawings and plans. Many wind tunnel models and data have been found. About 45% of the Arrow has been recovered along with 7 engines from the program, 4 J-75s and 3 Iroquois. An Arrow Technical Advisory Council has been formed. It is made up of aviation industry experts from many different quarters, schools and corporations. It is a fluid group whose job is, to advise on the methodology and details required to rebuild an airworthy Arrow. There are thousands of Canadian Aerospace workers in Canada. We are third in the world in the field of commercial aviation. We really do have something to celebrate.

## How can we rebuild the Arrow?

The Alliance will use the same proven techniques that has put Canadian aviation in its place today. New tools such as computer modeling/design, CNC machining and laser cutting will reduce traditional hard steel work. Using the same trial phases of wooden mock-up, metal mock-up and final build ensures it all comes together at the end. Remote manufacture, so successful today, can be included in the Arrow rebuild. Parts will be assembled in the old facility at Malton, which still exists, using a small skeleton staff of specialist, hired to do the job. A first flight corridor is still in use at Malton. The military has toyed with the idea of handling taxi and first flight logistics/execution. We can do it!

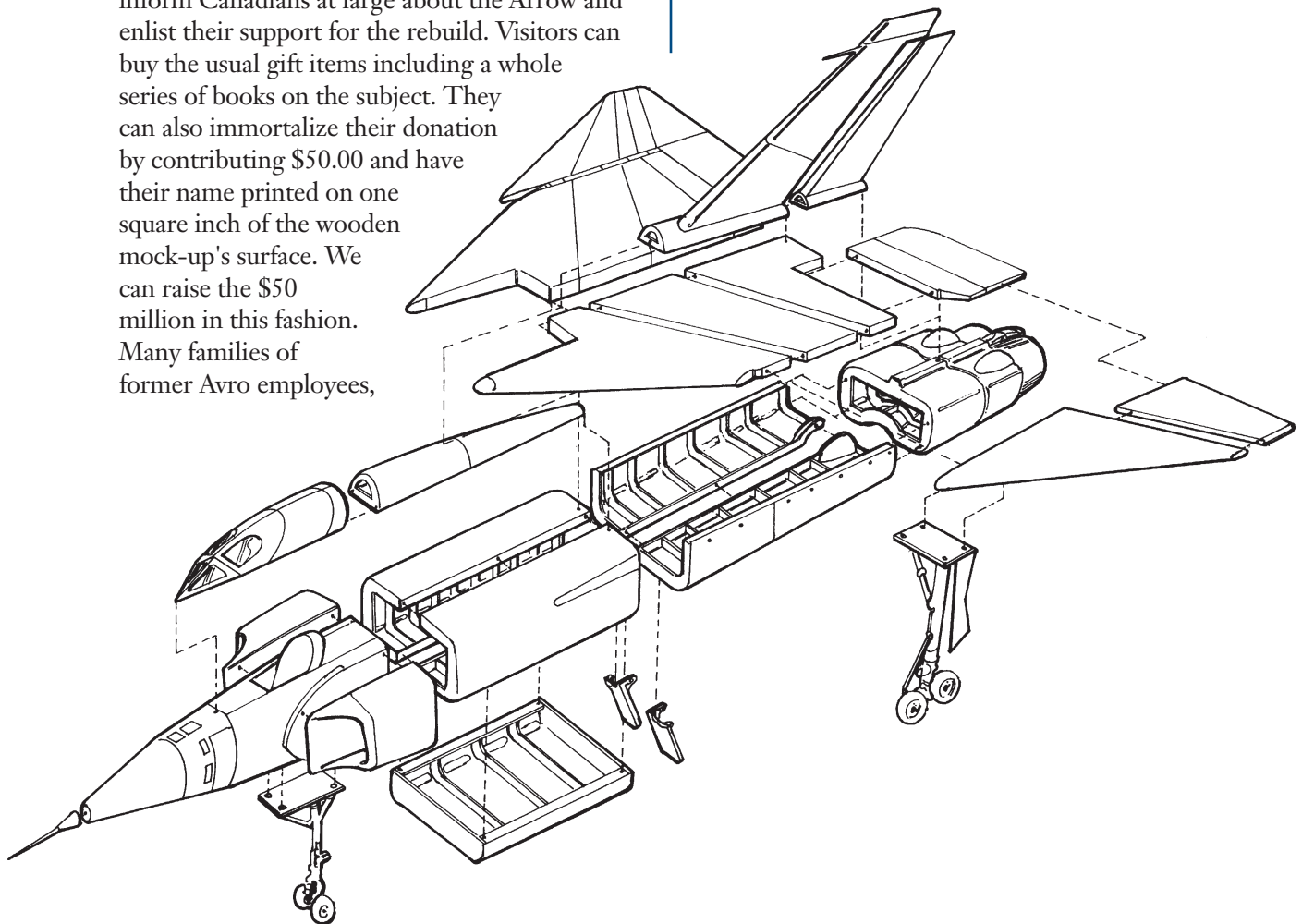
## It will cost Millions! How will you get the money?

Yes it will be expensive, about 50 million dollars cash. So what! This project is not about money. It is about national pride. We have a celebration, the hundredth anniversary of powered flight, 23 February, 2009. Coincidentally it is also the fiftieth anniversary of cancelling the Arrow – what a conjunction! What better thing could we do for this event than to bring back Canada's most famous and, still to this date, the fastest airplane, our Avro Arrow! The Alliance is planning a cross country, two year *Arrowmania* tour that will inform Canadians at large about the Arrow and enlist their support for the rebuild. Visitors can buy the usual gift items including a whole series of books on the subject. They can also immortalize their donation by contributing \$50.00 and have their name printed on one square inch of the wooden mock-up's surface. We can raise the \$50 million in this fashion. Many families of former Avro employees,

there are thousands, are eager to see a testimonial to their work. This is it! Once thousands of Canadians at large have contributed, corporate Canada will get on board. A million signatures and funding will convince government that the project is serious and worthy of support. Timing is everything.

*We should ask when the strength of the argument is self evident - not before.*

The vision of our Arrow crossing this country, joined along the way with all sorts of aircraft, gracing our skies once again for a celebration like no other. A real centennial of flight. We missed the fiftieth...let's not blow the one hundredth!





## The Arrow Alliance can mobilize and inspire Canadian youth.

*The Alliance's Arrow Scholarship Program* is aimed at young people graduating from high school. The Canada wide effort to identify an Arrow Scholar will not necessarily require academic excellence but instead will identify the well rounded individual with a leaning to science, technology and entrepreneurship. A \$1,000.00 cash award, a one week wilderness experience and a two week work term on the national project will set the seed with some three thousand recipients per year.

The Alliance's University Tuition Saving Plan, *The Arrow Reliance*, is aimed at the discriminating parent/relation/guardian who want more than just the traditional financial saving plan offered by existing RESPs. Access to educational resources, summer programs & jobs, curriculum counselling, tutoring, educational facilities analysis and access, entrepreneur and career assistance are just a few of the additional services being explored. Saving funds will be invested in educational facilities whenever possible.

Qualified Arrow Scholars will sell the plan. Commissions and administrative fees will pay for participating scholars' education, the

national project and related programs. The Reliance will operate as a not-for-profit, recognized charity, able to issue tax-deductible receipts. Arrow Alliance donations and memberships will be actively sought after from government, corporations and individuals alike.

## Strategic Partners with other Aviation organizations.

Aviation is a huge undertaking in Canada. There are many umbrella groups such as the CAHS, EAA, RAA, COPA, CASI, CALPA, ACPA, RCAF, Air Force Association, Air Cadets, and Legion just to name a few. They can all help.

### *Let's use Air Cadets as an example.*

The Alliance's goals of leadership and participatory excellence matches their objective. The inspirational aspect and citizenship model are fundamental to building knowledge and responsibility.

The Arrow project can enhance the pride of being part of Cadets. The project can help in promoting membership and highlight the neighborhood participation of the organization.

The *Arrowmania* cross country tour will give Cadets an opportunity to organize the local event, raise money and host the display. Bringing the true Arrow story home is important to every Canadian because the events that led to the Arrow's demise have not gone away. We should know our history!

The Arrow project can create a spin-off effect that funds local aviation initiatives and expanded flying opportunities and equipment. Let's use our imagination.

## What if the Alliance collects the funds and fails to rebuild the Arrow?

All funds collected will go into a trust fund to be administered by a recognized national management company such as Deloitte Touche or Ernst & Young. The corporation formed for *Arrowmania* and the Arrow rebuild will own the rights. Although not-for-profit, the Alliance will control the disbursement of funds through an aviation industry representative board. A nationally recognized legal firm will be engaged to advise on the best way of dealing with these issues.

If, for very good reasons, the Arrow project is delayed or abandoned funds collected to that date will be directed to promoting Canadian aviation initiatives and enhancing the programs that will already have been a part of the program to that date.

## What if the Alliance is successful in bringing the Arrow back?

It will be a great day for Canada and Canadians. It will be talked about for years as the event of the century. The Arrow will tour airshows around Canada and the world. It could stimulate a whole generation to really make Canada a place of opportunity, a place to realize your dreams.



# Arrow Countdown

Arrow Countdown, the first in a series of books that will detail the re-building of Canada's most famous airplane, the New Arrow, since the publishing of Sparrow's ground breaking book *Scrapbook #1978*. Thousands of books have been sold in several Canadian cities. As a result many more hidden facts, plans, reports, photos, etc., have surfaced making the process of building the Arrow back in the sky a distinct reality.

The Arrow Alliance is proud to share, not only with related contributors but Canadians at large, our Arrow related findings.

## In This First Countdown:

- Learn all about Arrow supporters: Right from those who were there - featuring Special Patrick!
- Follow cockpit developments with never before seen detailed photos and facilities for the future Arrow Alliance.
- Read about plans to rebuild the Arrow and how it can be accomplished, including various financial details.
- Blue Highlights - some highlights:
  - work ground practice Airway
  - Arrow technology for 7000
  - Aircraft engine recovery in the US
  - Engines will provide \$1,200,000 worth from
  - Arrow accident and molecular physics and more more.

## The Arrow Alliance

Bringing Canadians that will see the great things

February 23, 2009

200 years of aviation - Canadian flight

From *Builder's to Builder*, will you be there?

Arrow ALLIANCE



The BOSTON MILLS PRESS

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ARROW Countdown • Peter Zuuring



# ARROW Countdown



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Arrow Countdown - Book number 2



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