

# Broken Arrow, Empty Quiver

November 24, 1958: "For as long as we can see, we must have manned interceptors..."

— Air Marshal C. R. Slemon  
Deputy Commander, NORAD

February 20, 1959: "... defence requirements constitute the sole justification for defence procurement."

— Prime Minister John Diefenbaker  
Politician

.....By BRENT RAYCROFT.....

ON SEPTEMBER 23, 1958, Prime Minister Diefenbaker said in a statement: "The Government believes that to discontinue abruptly the development of this aircraft and its engine [the Arrow and the Iroquois], with its consequent effects upon the industry, would not be prudent with the international outlook as uncertain and tense as it is."

The international situation he was referring to was the Chinese Communist shelling of Quemoy and External Affairs Minister Smith had explained that Canada had no military commitments in that area.

On Feb. 20, 1959, Mr. Diefenbaker announced the abrupt cancellation of the Arrow and Iroquois programs when the international outlook was—and is—at least as tense. Canada is directly involved in the Berlin situation because it is an ally of West Germany in NATO.

**Root of All Evil:** The Government cancelled the Arrow for money and not military reasons. Mr. Diefenbaker and Defence Minister Pearkes briefly attempted to put forward some military reasons for killing the project but in the end gave up all pretence of this and concentrated on their estimate of \$781 million for 100 Arrows.

For their part, the Liberals didn't disagree with the decision but only with the way in which it was carried out. In the resulting arguments in the Commons, any military reasons in favor of or against continuation of the Arrow were largely or wholly ignored.

Mr. Diefenbaker conceded that development of both Arrow and Iroquois had been a success "... although for

various reasons, it has been much behind the original schedule." He did not mention that one of the "various reasons" and probably the chief one was the eternal reviewing process of both the Liberal and Conservative governments. This naturally shoved up costs, as well.

Then the Prime Minister said it has come to be realized—he did not say by whom—that the bomber threat against which the Arrow was intended to provide defence had "diminished." The Russians "appeared" to have cut bomber production.

## Unknown Factor

THE PRIME Minister's intelligence sources did not seem as reliable, however, on March 3, when he said: "In all the planning that has been done and in all the expenditures for defence that have been made since 1945 the unknown factor has been that we have not known the plans and intentions of the U.S.S.R." And later he added: "We do not know what is in the mind of the Kremlin."

Mr. Diefenbaker said that "by the middle sixties the missile seems likely to be the major threat." But later Mr. Pearkes said the missile would be the main threat by mid-1960. Taking the defence minister's reasoning, the Arrow should have been cancelled in 1953, the year development started.

Giving another so-called military reason for cancellation of the Arrow, Mr. Diefenbaker said that "Already the U.S. Air Force has decided not to continue with the further development and production of U.S. aircraft having the same general performance as the

Arrow." He conveniently did not name any specific aircraft and thus overlooked the F-108 which USAF has said it wants for DEW Line patrol.

**The Tactician:** There was an almost incredible example of fuzzy military thinking when Mr. Diefenbaker on Feb. 23 described the Arrow as "obsolete" and said that even if it had been in production now it would not meet the potential threat. Only three days earlier the Prime Minister had said that the CF-100 "is still an effective weapon in the defence of North America."

Mr. Pearkes' intelligence system was tailored to meet the Government's decision. He said the Russians apparently aren't continuing the production of any type of bomber more advanced than the Bear and Bison, thus glossing over frequent reports about the new Soviet supersonic bomber, the Boudier.

Mr. Pearkes said the number of Bear and Bison aircraft in the Russian inventory is "extremely limited" although Jane's All the World's Aircraft has estimated Bison production alone at 15 per month since early 1956. None of the Minister's statements in this regard was questioned.

**The Chameleon:** On June 10, 1958, Mr. Pearkes told the Commons estimates committee that Russia had "a large fleet of hostile bombers which constitute a very serious threat against this continent." He also said then that the CF-100 "eventually will have to give way to a more modern type of interceptor."

Mr. Pearkes said the Chiefs of Staff recommended continuation of the



Arrow in 1957 but had changed their minds in 1958. It is perhaps significant that the Chiefs of Staff, as servants of the civil government, can neither confirm nor deny this publicly. It is known, however, that Air Marshal C. R. Slemmon, deputy NORAD commander, was nearly fired by the Government last fall for saying that the RCAF still needed manned interceptors and that the Arrow would be the best plane available until appearance of the F-108.

**Can't Compare:** Mr. Pearkes compared performance of the Arrow and Bomarc, although he had been saying before last September that the two systems were complementary. He said the Arrow would have had a range of 354 miles supersonically and 506 nautical miles subsonically and admitted that "it is possible for an enemy bomber to get under the range of a Bomarc."

The Minister said the CF-100 is "quite capable" of dealing with the Russian Badger. He did not say whether it could deal with the Bison or Bear—or whether the Bomarc could either.

Avro Aircraft's action in letting all its employees go Feb. 20 apparently

caught the Government by surprise. All the thanks the company got for developing and building the Arrow was public castigation by the Prime Minister.

Mr. Diefenbaker maintained Avro had known ever since last September that the Arrow was through, although Mr. Pearkes earlier had said he was trying right up to almost the last moment to sell the plane to the United States and Britain.

**Embarrass the Government?** The Prime Minister said the company's attitude in letting out its workers "was so cavalier, so unreasonable, that the only conclusion any fair-minded person can come to is that it was done for the purpose of embarrassing the Government."

"They knew it was coming," he said. "They knew what the decision was and it was unchangeable."

This hardly squares with what the Prime Minister said last Sept. 23: "The Government has decided that the development program for the Arrow aircraft and Iroquois engine should be continued until next March, when the situation will be reviewed again in the light of all the existing circumstances at that time."

Mr. Diefenbaker argued that the company should have made some provision to cushion the prospective impact of the Arrow's cancellation. But it was only after Feb. 20 that he would see company officials.

**Precious Little:** Three days of Government-company talks in Ottawa produced precious little. The Government agreed to stand half the payroll costs of keeping on some technicians—it was vague about the number involved—and gave a promise to study further Avro proposals for alternate work. Sharing payroll costs was the same gimmick the Government used when it cancelled the Astra and Sparrow last fall.

On Feb. 23, Defence Production Minister O'Hurley produced his almost barren statement on production-sharing with the U.S. and said: "The real success of production-sharing endeavors depends, to a large degree, upon the determination of Canadian industry vigorously to seek defence business in the U.S. either as prime or as subcontractors." On March 3, Mr. O'Hurley outlined the steps his Department has taken to get American contractors interested in Canadian production facilities.

On March 2, Mr. Pearkes, perhaps inadvertently, admitted the Government's policy on the Arrow was only a guess.

Only a couple of days after listing Russian bomber plans, or lack of them, he said: "If we were planning against an enemy who was kind enough to inform us exactly what was in the inventory of his armament, it would be very much easier than trying to guess what a possible aggressor might do when the means of obtaining information are extremely limited and are not available immediately there is any change in the would-be aggressor's plan of armament and organization of his forces."

**The Opposite View:** On Jan. 22, U.S. Defence Secretary Neil McElroy told a press conference in Washington that "We do believe that there is a very large Russian bomber of an advanced design which is under development and we presume that it would be supersonic."

At the same press conference, Mr. McElroy said the manned interceptor is the first line of defence and de-

## ..... Intelligence Schism .....

The following report is reprinted in its entirety from the March 2 edition of "Aviation Week":

Ottawa—Variance in Canadian Government's interpretation of intelligence on the Soviet bomber potential and that of the U.S. government, apparently from the same information, became apparent during House of Commons debate on the cancellation of Mach 3 Avro CF-105 interceptor. Minister of National Defence G. R. Pearkes said:

"All of the information we can get from the sources available to the Government indicates that the threat of the manned bomber against this country is diminishing."

At another point, Pearkes told Commons that "the indication has been that the Russians are not continuing the production of any type of bomber more advanced than that known by the code names of the Bear and the Bison, and that the number of Bear and Bison aircraft in the Russian inventory is extremely limited and, furthermore, that these are the only two types of Soviet bomber which could reach this country and return again."

The Defence Minister also challenged a statement by an opposition member of Parliament that military

observers recently said that the Russians in the mid-1960s would still have an inventory of 1,000 to 2,000 bombers capable of striking Canada in addition to its inventory of intercontinental ballistic missiles.

Pearkes replied that the statement "must not be taken as indicating that these 2,000 bombers could reach this continent or that more than a small fraction of that number could even make the return flight even if they were unopposed."

U.S. military intelligence has reported that the Russians now have under development a supersonic bomber code named the Bounder. While USAF, in 1957, revised downward its estimates of Soviet production of the Bison jet bomber after it became evident to the Russians that the aircraft would have difficulty in performing an intercontinental mission, there has been little serious suggestion that the manned bomber threat has diminished. Development of the Bounder apparently was designed to provide an effective replacement for the Bison.

Details and initial test flights of a prototype of a Soviet nuclear-powered aircraft were first reported by Aviation Week in an exclusive story last Dec. 1.

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deck I but incorporating small refinements, was completed on September 11, 1909, and made its first flight at Baddeck on September 20. This was the last successful aircraft to be produced by the Canadian Aerodrome Co.\* and shortly thereafter Canada's first aircraft manufacturing concern expired quietly.

\*Three other aircraft of various types were built at Baddeck in the period 1910-12. These were the "Onionos", an attempt to combine Bell's tetrahedral cells with the successful lifting surface aerodrome; the "Mike", a Bleriot type monoplane; and the Cygnet III, a smaller version of the Cygnet II. The Onionos flew on March 10, 1910, the Cygnet on March 9, 1912. None of these machines was considered a success.

### BROKEN ARROW

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scribed the Bomarc as "the second line of defence."

On Jan. 27, Gen. Thomas White, Chief of Staff, U.S. Air Force, told the U.S. Senate armed services committee that there is a "clear and pressing military requirement" for the F-108 long-range interceptor. The

F-108 would be able to police the DEW line and "begin destruction of attacking aircraft long before they reach our borders or the population centres of Canada."

In the Canadian Commons, Mr. Diefenbaker had the last word: "There is no purpose in manufacturing horse collars when horses no longer exist."

**Examining the Ruins:** Now, what has been the upshot of the Arrow decision?

- Simply, Canada has turned over its air defence role and possibly all its air defence to the United States.

- The RCAF will not get a new interceptor for the defence of Canada. To all intents and purposes, it is through as a combat force.

- Canada will have two Bomarc bases which are primarily intended for the defence of the U.S.

- The U.S. will pay two-thirds of the cost of the Bomarcs, SAGE and the seven new radar stations.

- Five of these radar stations will be built on the Canadian prairies to control operations of American inter-

ceptors based in Canada.

*In short, the RCAF's role in air defence will be directing from the ground American interceptors and American Bomarcs to their targets.*

In exchange for all this, Canadian companies may get the crumbs which fall from the American industrial table.

All this might have been accepted if the government had had some plan to put in the place of the Arrow. But it had none. It underestimated the Canadian taxpayer and rolled over and played dead. Feb. 20 was indeed a Black Friday.

### THE COMPANIES

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ft. of the total plant area, to the production of aviation components. Weatherhead is concerned with the design, development and manufacture of rigid and flexible fluid connections.

- **Western Airmotive Ltd.:** Located at Vancouver International Airport, Western Airmotive employs 23, has a plant area of 20,000 sq. ft. Concerning itself solely with commercial and private aviation, the company offers general maintenance and overhaul facilities; repair and rebuild facilities for Bell airframes; instrument overhaul; radio repair and sales.

- **Vertol Aircraft Co. (Canada) Ltd.:** This Arnprior, Ont., company handles the repair, overhaul and modification of Vertol aircraft in Canada. The Canadian firm also manufactures certain spare parts for Canadian-operated Vertol helicopters.

- **Parmatic Engineering Ltd.:** This Owen Sound, Ont., firm has a staff of 50 and a plant area of 800 sq. ft.. Parmatic manufactures pressure switches, differential and vacuum gauges, temperature sensing devices and all types of filters.

- **Simmonds Aerocessories of Canada Ltd:** This Hamilton, Ont., firm acts as manufacturing representatives for Simmonds-designed lightweight Pacitron gauging equipment; cowlings; Hi-Shear rivets, tools and anchor bushings.

- **Western Propeller Co. Ltd.:** Employing some 25 men at Edmonton Municipal Airport, Western Propeller is primarily active in the field of propeller and governor overhaul and repair. Much work is done in general aircraft and engine repair and overhaul

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