

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
2006	4	29		China tests its new FC-4 supersonic fighter	Calgary Herald Newspaper
1877	4	26	A.V. Roe	Birth of Alliot Verdun Roe, founder of A.V. Roe Company, at Patricroft, near Manchester, England	Avro Canada C102 Jetliner by Jim Floyd
1910	1	1	A.V. Roe	A.V. Roe & Company was registered in England by Alliot Verdan Roe and brother Humphrey V. Roe	Avro Canada C102 Jetliner by Jim Floyd
1928	0	0	A.V. Roe	Alliot V. Roe resigned from A.V Roe & Company and formed Saunders Roe	
1928	8	0	A.V. Roe	68.5% of A.V Roe & Company shares acquired by Crossley Motors	
1928	9	0	A.V. Roe	A.V. Roe Company shares held by Crossley Motors sold to Armstrong Siddley Holdings Ltd	
1929	0	0	A.V. Roe	Sir Alliot V Roe - knighted by the British government for his service to aviation	
1935	0	0	A.V. Roe	A V Roe & Co became part of the Hawker Siddley Aircraft Company Ltd but continued to operate as A V Roe & Co with the trade name Avro	
1938	0	0	A.V. Roe	the plant that was to become Avro Aircraft was built by National Steel Car Corp to assemble Westland Lysanders and Avro Ansons	Canadian Heritage Calendar
1945	7	0	A.V. Roe	A.V. Roe & Co Ltd bought the Victory Aircraft Ltd plant from the government and the new A. V. Roe Canada Ltd operated under the trade name Avro Canada. "Key employees were mostly young - in their thirties.....thier greatest asset was that they did not know that they should not be able to do what they did". - Fred Smye	Fred Smye Memoirs
1945	10	0	A.V. Roe	Sir Roy Dobson in a British news release said "that Hawker Siddley bought the Victory Aircraft plant to spread development of the science of aeronauticss and to give Canada a basic industry, which in our opinion she badly needs....."	Canadian Aviation Magazine
1945	10	26	A.V. Roe	first flight of the only Avro Lincoln built at Avro Canada	Canadian Heritage Calendar
1945	12	1	A.V. Roe	A.v. Roe Canada took possession of the former Victory plant and its 300 employees	Avro Canada C102 Jetliner - J C Floyd
1946	1	0	A.V. Roe	Minister C D Howe reported that the Government had plans to share the profits of A.V. Roe Canda's new aeronautical research, development and production at Malton...."the plan is very satisfactory from the standpoint of Canada, and should result in the development of a first-class aircraft manufacturing operation in Canada..."	Canadina Aviation Magazine
1946	3	0	A.V. Roe	Avro takes Noorduy'n's place in a design tender for a RCAF twin engine trainer .... the project is meant to stimulate the aircraft industry while equipping the airforce....(the project was dropped when Avro received contracts for a new jet transport for trans Canada Airlines and a new twin jet fighter for the RCAF)	Canadain Aviation Magazine
1946	4	0	A.V. Roe	Dept of National Defence Aeronautical Engineering Division describes RCAF Trainer design the most practical means of encouraging Canadian firms to maintain adequate design staff	Canadian Aviation Magazine
1946	5	0	A.V. Roe	Avro reportedly to build British designed Avro Tudor at Malton - the company wants to build up a completely Canadian design and development organization	Canadian Aviation Magazine
1946	5	0	A.V. Roe	Canadian Government, not wanting to go into production of jet engines, contemplates selling its Turbo Research Ltd, to private interests	Canadian Aviation Magazine
1946	6	0	A.V. Roe	Avro takes over Turbo Research Ltd jet engine development - Avro now has 700 employees	Canadian Aviation Magazine
1947	8	0	A.V. Roe	"Avro's Malton plant offers a future for young Canadian engineers,. They are the nucleus around which our aircraft industry will be built" - Avro spokesman	Canadian Aviation Magazine

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1947	8	0	A.V. Roe	A. V. Roe Canada Ltd as a member of the English Hawker Siddley Group can draw on their experience of veteran British manufacturers such as Gloster Aircraft, Hawker Aircraft, Armstrong Siddley, Air Service/Training, Armstrong Whitworth, Hawksley and A.V. Roe & Co Ltd of Manchester....	Canadian Aviation Magazine
1948	4	1	A.V. Roe	The birth and unqualified success of the Avro Chinook turbojet engine is in keeping with the high standard expected of Canada's aviation industry, and in production of their first jet engine, the men of AVRO Canada, have not only brought credit to themselves, but they have boosted even higher the prestige of Canada as an air power and an aircraft producer... That Canada can design, build, and fly aircraft equal to the best, and the newest in the world, is what we are proving now.	Aircraft & Airport, April 1948
1949	1	1	A.V. Roe	A.V. Roe Canada employees 2200	Aircraft & Airport, January 1949
1950	1	1	A.V. Roe	AVRO Jetliner and Canuck fighter do not attend the SBAC Airshow at Farnborough, Britain.	Aircraft & Airport, September 1950
1950	1	1	A.V. Roe	AVRO has acquired 1,000 engineering staff.	Aircraft & Airport, November 1950
1950	11	27	A.V. Roe	Mr. Rhys M. Sale, President of Ford of Canada quoted in the Telegram saying Avro would become the largest employer among Canadian companies.	Avro Canada C102 Jetliner by Jim Floyd
1951	2	1	A.V. Roe	Prime Factor in Aircraft Production: From a standing start five years ago, A.V. Roe Canada Ltd. Has established itself with the world's leaders in the design field, for both engines and airframes. It is now preparing to make its mark as a production concern. ...Since Avro Canada suppliers number well over 300 (for engines and airframes), it can be easily seen that a broad segment of Canadian industry will benefit, as will Canadian labor.. ...in the event of an all out war, it is quite likely however that this prospect would have to give priority to AVRO Canada's defense commitments, (unless a military application is found for the Jetliner, of which there seem to be many.)	Aircraft & Airport, February 1951
1951	4	1	A.V. Roe	Avro Canada agrees to a wage increase for more than 3000 plant employees, having in mind the all-out effort required by the company in defense work.	Aircraft & Airport, April 1951
1951	6	0	A.V. Roe	The RCAF's new Orenda powered F-86 Sabre has been in test program at Avro since arriving in late April	Aircraft Magazine
1951	8	0	A.V. Roe	Avro announces development of a long range jet powered fighter for the RCAF and design and development of axial flow turbine engines for military and civilian use	Aviation Magazine
1951	9	0	A.V. Roe	More than 300 suppliers and manufacturers throughout Canada have been organized to furnish materials, components and equipment to Avro Canada....Avro's large yearly expenditures for materials and equipment is largely spent in Canada.... Orenda Engines - 95%.... Avro Jetliner - 80%....Avro Canuck - 90%	Flying Magazine
1951	9	1	A.V. Roe	Media representatives get their first look at Avro Canada's full scale turbine Test Establishment at Nobel, Ontario.	Aircraft & Airport, September 1951
1951	10	12	A.V. Roe	Crawford Gordon Jr. replaces outgoing VP & General Manager Walter N. Deisher with title of President & General Manager.	Aircraft & Airport, November 1951
1951	11	1	A.V. Roe	Avro reduces hourly work week from 45 hours to 42	Aircraft & Airport, November 1951
1952	1	0	A.V. Roe	Avro's engineering division is completely reorganized with the company's appointment of James Floyd as Chief Engineer - now in charge of the Jetliner, the CF-100 and super sonic studies that would become the Arrow Floyd wants nothing to do with Project Y (AvroCar) and insisted that the project report directly to President Smye.	Avro Canada C102 Jetliner - J C Floyd
1952	1	1	A.V. Roe	A.V. Roe Canada Ltd is reorganized with a Gas Turbine Division, and an aircraft division called Avro Aircraft Ltd.	1999 Calendar published by Adlin Group

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1952	5	30	A.V. Roe	High praise for the achievements of Avro Canada was voiced in the House of Commons by Minister of Defense Production, C.D. Howe.	Aircraft & Airport, July 1952
1952	9	1	A.V. Roe	Hawker Siddley Group of Britain makes a further investment of \$3 million in Avro Canada Ltd.	Aircraft & Airport, September 1952
1953	1	1	A.V. Roe	Avro wage increase of five cents/hour and general reclassification of the company's 7200 hourly paid employees the base rate increasing by 13 cents/hour.	Aircraft & Airport, January 1953
1953	2	1	A.V. Roe	In address to House of Commons, C.D. Howe, Minister of Defense Production commented that: at the present time, there are approximately 14,000 persons employed at Avro...there has been some concern that there were more people than production warranted.... I'm satisfied this condition no longer exists.	Aircraft & Airport, April 1953
1953	3	1	A.V. Roe	Avro sets up second production line to help produce the required Canuck MK-4's. Avro Aircraft builds two new 100,000 sq. ft. hangars and Orenda builds two additions to its new engine plant bringing its total area to one million sq. ft..	Aircraft & Airport, March 1953
1953	6	1	A.V. Roe	Avro employees 14,000 at Malton.	Aircraft, June 1953
1953	7	1	A.V. Roe	Government awards AVRO Canada \$250, 000 for design study of new CF-104 delta fighter.	
1953	10	10	A.V. Roe	Hawker-Siddeley Group Design Council described as "the greatest single collection of aeronautical design and research brains in the world" toured the aircraft and turbine plants.	Avro Canada C102 Jetliner by Jim Floyd
1953	10	30	A.V. Roe	Hawker Siddley Design Council commented on visit in Avro's corporate magazine: Sir Frank Spriggs, Manager Director - Hawker-Siddley: "You have demonstrated beyond question that you (Floyd) can talk on level terms with any aircraft design team in the world. I am truly proud of the Aircraft Division of AVRO Canada."	Avro Canada C102 Jetliner by Jim Floyd
1953	10	30	A.V. Roe	Hawker Siddley Design Council commented on visit in Avro's corporate magazine: R.W. Walker, Chief Designer - Gloster Aircraft: "I am ecstatic about what you are doing here, both on the engine side and aircraft side. You are doing a truly remarkable job."	Avro Canada C102 Jetliner by Jim Floyd
1953	10	30	A.V. Roe	Hawker Siddley Design Council commented on visit in Avro's corporate magazine: Sir Sidney Camm, Chief Designer of Hawkers: "You have done amazing things here at Malton	Avro Canada C102 Jetliner by Jim Floyd
1953	11	3	A.V. Roe	Avro Canada announces recent \$17.5 million purchase of government owned gas turbine plant where Orenda engines are currently in production. Avro now has 2,654,000 square feet of building space on 350 acres.	Aircraft, November 1953
1954	0	0	A.V. Roe	Avro Canada installs \$130,000 commercial digital computing system to speed aircraft design - it is estimated that the machine can do seven months work of one man in two hours.....	Canadian Aviation Magazine
1954	4	1	A.V. Roe	Hawker Siddeley Group of Great Britain buys Canadian Steel Improvement Ltd.	Aircraft, December 1954
1954	6	12	A.V. Roe	Canada's Fourth Annual Airshow at Toronto featured the Avro Jetliner and Orenda's jet powered Lancaster. Avro Test Pilot Jan Zurakowski provided a sparkling session of CF-100 aerobatics.	Aircraft, July 1954
1954	7	29	A.V. Roe	Aircraft Division of A.V. Roe Canada was incorporated as AVRO Aircraft Ltd. - commonly known as AVRO Aircraft	Avro Car - Canada's Flying Saucer by Bill Zuk
1954	7	29	A.V. Roe	AVRO Aircraft Ltd. - Orenda Engines Ltd. A.V. Roe had direct or majority control over 44 companies, employed over 50,000 workers, with annual sales figures of \$450 million. It ranked only behind C.P.R. (Canadian Pacific Railways) and ALCAN as the most important corporation in Canada. The company motto "The next big step" was adopted in 1956.	Avro Aircraft and Cold War Aviation by R. Whitcomb

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1954	8	1	A.V. Roe	A.V. Roe Canada Ltd. buys Canadian Steel Improvement from Hawker Siddeley Group.	Aircraft, December 1954
1954	8	26	A.V. Roe	AVRO officials provide a briefing to the American Air Research & Development Command.	Storms of Controversy, by Palmiro Campagna - 1992
1954	8	26	A.V. Roe	Letter to Crawford Gordon at Avro from General O. P. Weyland US Airforce - "...Your facilities are as modern and well organized as any I have ever seen and additionally you appear to have more expansibility than many of our US concerns...."	Avro Museum RL 853-1954
1954	10	5	A.V. Roe	Cornerstone laid for new \$500,000 AVRO Gas Turbine lab by Sir Thomas Sopwith, Chairman of the Board of Hawker Siddeley Group of Great Britain.	Aircraft, November 1954
1954	10	23	A.V. Roe	Letter to Crawford Gordon Avro from John W Baker - British Joint Services Mission - "...Your projects were of absorbing interest, and indeed, an inspiration as a measure of the contribution you are making to our mutual defence problems..."	Avro Museum RL 850-1954
1954	12	2	A.V. Roe	Gordon recounts how Hawker Siddeley Group of Britain had invested \$16 million in Canada, had grown from 300 to 16,000 employees, from 1.0 million sq. ft. to 2.5 million sq. ft. on 550 acres at Malton.	Aircraft, December 1954
1954	12	2	A.V. Roe	C. Gordon, President and General Manager of AVRO Aircraft announces the diversification of the company to take effect Jan 1, 1955 (Avro Aircraft / Orenda Engines / Canadian Steel Improvement under parent company A.V. Roe Canada Ltd.)	Aircraft, December 1954
1955	1	1	A.V. Roe	Avro releases 1,000 workers because of cutback in the Canuck production.	Aircraft, April 1955
1955	1	2	A.V. Roe	A.V. Roe Canada Ltd activities were split into three individual companies. A.V. Roe Canada Ltd became the parent holding company; aircraft division became AVRO Aircraft Ltd; gas turbine division became Orenda Engines Ltd.	Avro Canada C102 Jetliner by Jim Floyd
1955	2	1	A.V. Roe	Orenda's P.S. 13 (Iroquois) engine remains an A.V. Roe private venture of \$4 million.	Aircraft, March 1955
1955	3	1	A.V. Roe	Avro Aircraft announces the release of 1,000 workers.	Aircraft, April 1955
1955	6	1	A.V. Roe	J.H. Dickey, parliamentary assistant to the Minister of Defense Production, announced that for the fiscal year 54-55, AVRO & Orenda accounted for 60% of the total expenditures for aircraft and engines in Canada. (37.7% of total Canadian Production)	Aircraft, June 1955
1955	7	1	A.V. Roe	Crawford Gordon Jr., AVRO President in announcing the purchase of Canadian Car & Foundry Co. Ltd.... "It (the purchase)... reflects, I believe, the deep routed interest of the Hawker Siddley Group in our Canadian operations and in the future of Canada itself."	Aircraft, July 1955
1955	7	1	A.V. Roe	Avro test pilot Glen Lynes demonstrates the aerobatic capabilities of the Canuck MK IV at the National Airshow at Toronto while Orenda displayed its new Orenda 11 (two stage turbine).	Aircraft, July 1955
1955	7	1	A.V. Roe	"Post graduate courses are so narrow that a man who has spent a year with industry is usually just as far ahead." J.A. Chamberlin, Chief Technician, Avro Aircraft Ltd.	Aircraft, July 1955
1955	8	1	A.V. Roe	Defense Minister announces a pre-production of Velvet Glove air-air missiles and a soon to be placed similar pre-production order for CF-105 AVRO Interceptors.	Aircraft, August 1955
1955	9	1	A.V. Roe	A.V. Roe Canada acquires Canadian Car & Foundry	Storms of Controversy, by Palmiro Campagna - 1992
1955	10	0	A.V. Roe	Avro buys controlling interest in Canadian Car & Foundry Co. Ltd.	Aircraft Magazine

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1955	10	0	A.V. Roe	Avro Aircraft & Orenda Engines agree to pay for advances education of employees holding a bachlor degree in aeronautical engineering...the company will give the employee a leave of absence, pay all course expenses and grant 75% of the married employee's salary - 50% for the single student	Aircraft Magazine
1955	10	0	A.V. Roe	Avro and Orenda add 200,000 more sq ft to their Malton plants	Aircraft Magazine
1955	12	9	A.V. Roe	Air Vice Marshall Hendrick, air member technical services responds to Dsfence Research Board (DRB) / National Aeronautics Establishment (NAE) letter of November 3rd: "There is a wide difference of opinion between (NAE) and A.V Roe on the possible performance of this aircraft....I think it is only fair to say however, that we as a service, can find no serious grounds for differing materially with the company who are our contractors and designers of this aircraft."	Storms of Controversy, by Palmiro Campagna - 1992
1956	1	1	A.V. Roe	Director of the Royal Aeronautical Establishment and Deputy Chief of Staff of the British RAF visit Avro. Their conclusions generally agreed with American opinion of the aircraft and saying the Arrow would be RAF's best choice.	Storms of Controversy, by Palmiro Campagna - 1992
1956	3	0	A.V. Roe	A.V. Roe Canada which started ten years ago with 300 employees, now includes Avro Aircraft Ltd, Orenda Engines Ltd, Canadian Steel Improvement Ltd, and Canada Car and Foundry with 22,000 employees, nine plants and 5.5 million sq ft of floor space.	Canadian Aviation Magazine
1956	3	22	A.V. Roe	Avro Memo by R Lindley to Project Research Group - "...New Projects Group to commence study on new military project based on following considerations; a) main business company should be in up to 1970, b) type of vehicle required - eg: manned fighter, unmanned fighter, missile, etc assessed against estimated threats @ Mach 2.5 and Mach 4-5 c) transport business to be considered a side-line to the main business...."	Avro Museum RL 853-1957
1956	6	28	A.V. Roe	Avro Memo by Fred T Smye VP/Genera Manager Avro Aircraft Ltd. - "...It is with regret that I have to announce an immediate reduction in the rate of production of the CF-100.....This will unfortunately result in a reduction in our working force..."	Avro Museum RL 853-195
1956	7	0	A.V. Roe	A.V. Roe Canada's subsidiary, Canada Car & Foundry, already manufacturing truck and trolley bodies now to offer a new 'Canada' truck powered by a British Leyland diesel engine	
1956	12	13	A.V. Roe	Avro Memo by Avro Engineer J C Floyd - "...based on the question of what project to undertake upon completion of the Arrow, Floyd recommends that the company set up a small group to research possibilites - 'Project Research Group'...."	Avro Museum RL 855-1956/12
1956	12	18	A.V. Roe	Avro Memo by Avro Engineer J C Floyd re Futurre Projects / Planning - "... What we must have as a company is a well balanced overall operation with improvements in the areas in which we can make the most money.....to get the best results we should have some logical plan for a period of say 5 years ahead at any given time, and always have some goal on sight regardless of how many times we must adjust our sights...."	Avro Museum RL 855-1956/12
1957	3	0	A.V. Roe	formed in 1945 with 300 employees, A. V. Roe Canada Ltd now employees 20,000 in ten establishments - Sir Thomas Sopwith - Chairman, Hawker Siddley Group UK (parent company)	Canadian Aviation Magazine
1957	4	1	A.V. Roe	Government informs RCAF that the USAF wanted to be kept up to date on all Arrow/Orenda developments.	Storms of Controversy, by Palmiro Campagna - 1992
1957	5	14	A.V. Roe	Letter to Nova Scotia Technology College from J.C. Floyd VP Avro Engineering - "...As you know, we dismantled our prototype Jetliner and have Six spare Derwent 5 engines....In deciding on the disposal of these parts , the company felt that the Universities might possibly wish to use them ....the engines would be provided free of charge...."	Avro Museum RL 851-1957

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1957	7	31	A.V. Roe	With net sales of \$234,811,024 and operating profit of \$23,937,035 - President and General Manager, Grawford Gordon commented that the outlook was favourable as A.V. Roe was involved in development of three of the most advanced projects of their type in the western world	Aircraft Magazine Nov/1957
1957	10	4	A.V. Roe	Arrow Rollout: Fred Smye, Vice President AVRO Aircraft: "The Arrow	The Avro Arrow Story by Bill Zuk
1957	10	4	A.V. Roe	Avro News (Corporate Newsletter) "...Until recently, high performance aircraft were not committed to production until after flight testing of one or more prototypes... The Arrow program is unusual in Canada in that even the first flying model has been built on production tooling."	Storms of Controversy, by Palmiro Campagna - 1992
1957	11	0	A.V. Roe	Avro lays off staff in response to Government cancelling its order for CF-100 MK6 aircraft	Aircraft Magazine
1957	11	0	A.V. Roe	Avro earnings reported a \$23,937,035 in profit over \$234,811,024 in total sales	Aircraft Magazine
1957	11	0	A.V. Roe	Aircraft Magazine reports that the Government cutting production of the CF-100 Mk6 would not result in Avro and Orenda laying off the 6-700 mentioned in earlier (media) reports	Aircraft Magazine
1957	12	4	A.V. Roe	Group Captain, Ray Foottit, head of the new Arrow Weapon Systems project office, accuses Avro of mismanaging the project. All was eventually straightened out and Foottit was to later say: "Avro engineers were the most professional team he had ever worked with"	Storms of Controversy, by Palmiro Campagna - 1992
1958	0	0	A.V. Roe	Avro VP engineering, Jim Floyd in a report to management outlines feasibility studies completed on future projects between 1954 & 1958....Family of Simple Interceptors....Smaller Version of CF-105....Subsonic Target Drone....Small High Speed Jet Transport....Long Range Jet Transport for TCA....Subsonic Jet Trainer....Propjet DC-6B....Air Cargo Study....Monorail....Supersonic Trans-Atlantic Transport Study....ship-borne missile for Canadian Navy....VTOI Fighter Project for US Navy....report on how to get into the missile business....infantry anti-tank missile....P-13 anti-missile missile....Bolacopter Project....Gyro Plane Family....SCIMP (supersonic cheap interceptor missile....Ballastic Drag Re-entry Vehicle....War Games (overall defense studies)....Anti-Boost-glide Defence System....Avro Orbiter (Arrow launched solid satellite)....Space Threshold Vehicle..	Avro Canada C102 Jetliner - J C Floyd
1958	7	31	A.V. Roe	A.V. Roe Canada Ltd other holdings include ten Dosco companies....Halifax Shipyards Ltd....Canadian Bridge Company....Truscon Steel Company of Canada Ltd....Canadian Tube and Steel Company Products Ltd....Stowell Screw Company Ltd....James Pender & Co Ltd....Graham Nail & Wire Products Ltd....Eastern Car Company Ltd....Trenton Steel Works Ltd....Trenton IndustriesLtd.	Avro Museum RL 855-1958
1958	7	31	A.V. Roe	A.V. Roe Canada Ltd now a diversified holding company .....Wholly owned subsidiaries include....Avro Aircraft Ltd...Canadian Applied Research Ltd...Canadian Car Company Ltd....Canadian Car Pacific Ltd...Canadian Steel Foundries Ltd...Canadian Steel Improvement Ltd...Canadian Thermo Control Company Ltd....Orenda Engines Ltd....Orenda Industrial Ltd	Avro Museum RL-1958I
1958	7	31	A.V. Roe	A. V. Roe Canada Ltd ends its fiscal year having doubled its assets to \$310,400,714 - increasing sales by almost \$150 million to \$370,751,856 while doubling its employment to 41,000....its' activities now range from mining of basic materials to manufacture of products from screws, wire and nails, to intricate electro-mechanical devices, advanced aircraft, jet engines, railway rolling stock, highway trailers, buses, naval and merchant ships.	Avro Museum RL-1958



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	7	31	A.V. Roe	A. V. Roe Canada Ltd's partially-owned subsidiaries include.....Canadian General Transit Company (55%).....Dominion Steel & Coal Corporation Ltd (77%).....and an associate company in Canadian Steel Wheel Ltd (50%).....	Avro Museum RL-1958
1959	2	10	A.V. Roe	Post Cancellation: The public was to remain unaware of the other concept projects left uncompleted with the cancellation of the Arrow and Iroquois programs: a ship borne missile for the Canadian Navy; an anti-tank missile for the Canadian Army; a vertical take-off version of the CF-100 for the Canadian Air force; A new vertical / short take-off fighter aircraft for NATO; a mid-size four-engine jet transport; a small business jet (later produced by Lear); studies into a Super Sonic Transport (Concorde); a turbine-powered mono-rail transit system for Toronto; a 600 horsepower turbine-powered highway tractor/truck; tracked all-terrain personnel carriers; research into nuclear / chemical power plants; automation / electronics and composite materials; designs for hypersonic space shuttle vehicles. A wide range of projects / joint ventures between AVRO and U.S. aircraft manufacturers did not receive support from the Canadian government.	The Avro Arrow Story by Bill Zuk
1959	3	11	A.V. Roe	Avro Memo by J C Floyd VP Avro Engineering reporting on trip to Ottawa - "...no decision would be made on Nato Strike Fighter until June.....no specification had been written.....the philosophy would be to purchase off the shelf to reduce development to a minimum...."	Avro Museum RL 852-1953
1959	3	11	A.V. Roe	Avro Memo to file by J C Floyd VP Avro Engineering .....its been indicated there is a need for a fast jet transport with a range of 1200 miles...	Avro Museum RL 852-1959
1959	3	12	A.V. Roe	Avro Letter to supervisory staff by Avro President Fred T Smye - "...My main purpose in writing to you is to extend my heartfelt thanks and appreciation of your loyalty....To those of you whose services we have been unable to retain, I wish to extend my deep and sincere regrets, but with the hope that you will be able to re-establish yourselves, and continue to make your contribution in some other field of endeavour...."	Avro Museum RL 857-1959
1959	7	0	A.V. Roe	Avro employees reduced from 14,500 to 4400 as July 31	Aircraft Magazine
1959	7	2	A.V. Roe	Avro President and General Manager, Crawford Gordon resigned.	
1959	11	0	A.V. Roe	Avro employment drops from 14,500 to 4400 as of July 31- Orenda employment expected to rise again to 3000 as the \$75 million J-79 turbojet engine program gets under way	Aircraft Magazine
1959	20	27	A.V. Roe	Conservative Cabinet agrees to share wage cost of no more than 450 key Avro and Orenda personnel for six months - Government liability not to exceed \$1,650,000 .....Cabinet admitting that Avro had warned Government it be in difficulties should work on the Arrow be stopped.	
1960	0	0	A.V. Roe	Former Avro VP Engineering, James C Foyd became British Government consultant on Anglo/French Supersonic Concorde	
1961	3	0	A.V. Roe	Avro enters a manufacturing agreement with Automatic Canteen Co, of America to produce vending machines ....Harvey Smith, Executive VP, Aeronautical, stated that "although Avro Aircraft is diversifying its manufacturing interests, the company is still very much in the aircraft building business with two sub-contract for CF-104 components an is doing limited amount of maintenance work on Cf-100's...."	Aviation Magazine
1961	3	0	A.V. Roe	Globe & Mail Feb 21 - "...Last Saturday night 250 former Avro engineers held a dinner and dance to mark the anniversary of their dismissal. The most convient meeting place was a hotel in Santa Monica, California, close to the US plants where the engineers now work"	Aviation Magazines
1961	10	0	A.V. Roe	Avro announced its option to purchase Cerlist Diesel Inc, of Burlington North Carolina for \$2 million and produce diesel engines in Canada if the deal goes through	Aviaton Magazine

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1961	12	31	A.V. Roe	Avro reports a net loss of \$3,889,041 as it tries to restructure - Avro Aircraft, Orenda Engines, Canadian Applied Research, formerly independent subsidiaries of the holding company are now reduced to operating divisions of A.V Roe Canada Ltd	Aircraft Magazine
1962	0	0	A.V. Roe	Avro Aircraft annual defence earnings drop again to just \$3,841,315 form previous \$8,533,580...Orenda gained \$4.6 million to \$39,493,158	Aviaton Magazine
1962	2	0	A.V. Roe	former Avro aerodynamicist , Jim Chamberlin who has not been in the US long enough to qualify for citizenship, has been assigned by NASA to manage Project Gemini space project.....an indication of the high regard with which he is held in the US scientific and engineering circles.....	Aviation Magazine
1962	3	0	A.V. Roe	Avro restructures subsidiaries ....Avro Aircraft is fabricating CF-104 wing tanks.....Orenda is building General Electric J79 engines....Canadian Applied Research builds electro-mechanical instruments...Canada Car Foundry producing CF-104 sub assmbles....Canada Steel Improvements a major supplier of metal forgings	Aviation Magazine
1962	4	0	A.V. Roe	Avro machinist union votes to strike	Aviation Magazine
1962	5	0	A.V. Roe	At its annual meeting April 30th, A V Roe Canada Ltd approved changing the company's name to 'Hawker Siddley Canada Ltd'	Aircraft Magazine
1962	5	0	A.V. Roe	Avro Aircraft Division / Hawker Siddley Canada announce preliminary studies on a small executive jet - many experts consider the market overcrowded	Aviation Magazine
1962	7	0	A.V. Roe	was there ever a more fantastic story than the rise and fall of Avro Aircraft, Canada's largest single employer, fails to live out its second decade of history - its bright scientists ...gone - Its ingenious engineers...gone - Its whizz kid management...gone - Its multi-million dolar contracts...gone. News of DeHavilland Aircraft taking over the Malton facilities has brought an end to the meteoric career of Avro Aircraft.	Aircraft Magazine
1962	7	0	A.V. Roe	Rise and fall of Avro Aircraft...post mortem reveals that the feeling is very wide spread that the Avro name is still anathema (banished) in Otttaw and to a very large extent this was behind Avro Aircraft's failure to re-establish itself in the smallest way....The change of name to the parent company Hawker Siddley Canada tends to suggest that not outsiders felt this was the case.....	Aviation Magazine
1963	1	22	A.V. Roe	Jim Floyd awarded Fellowship of the American Institute of Aeronautics and Astronautics	1999 Calendar published by Adlin Group
1963	3	0	A.V. Roe	Avro Aircraft, now deceased, again dropped far down the defence contract earnings list- \$3.8 million in 1961-62 compared with 48.5 million the previous year and \$95.8 million in 1958-59	Aircraft Magazine
1970	0	0	A.V. Roe	Alliot V Roe died having been lucky enough to witness first hand the birth of aviation and its evolution to space flight	
1979	10	9	A.V. Roe	John Frost (AvroCar designer) died of a massive heart attack at age 63.	Avro Car - Canada's Flying Saucer by Bill Zuk
1980	0	0	A.V. Roe	Sir Alliot Verdun Roe inducted into the International Aviation Hall of Fame	
1984	2	3	A.V. Roe	A plaque with citation and the name of J.C. Floyd was carried into space on US Challenger Shuttle Mission 41B	1999 Calendar published by Adlin Group
1953	12	9	A.V.Roe	Letter to Crawford Gordon at Avro form Frank B Rackly - Jessop Steel Co. Washington - "...I have been through quite a few similar operations....I think when the score is tallied A.V. Roe is way out in front....I speak of such things as plant maintenance, production flow lines, general layout, employee morale and quality workmanship..."	Avro Museum RL 850-1953



# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1951	9	8	Arrow	First delta configuration considered for use on the Arrow.	Avro CF105 Engineering Chronology Sept 1955
1951	9	10	Arrow	Presentation of the Royal Aeronautical Society of Britain by Author E. Raymond, VP of Engineering, Douglas Aircraft: "An aircraft could never to proved a success until its development period was behind it, but on the other hand, until its success had been reasonably established, it was difficult to get people to buy it."	
1952	3	0	Arrow	Avro recieves a RCAF 'all-weather requirements team' sends Avro a document entitled: 'Final Report of the All-Weather Interceptor Requirements Team' - Avro to again examine the 'state of the art' and submit what they thought was the optimum aircraft which would meet the RCAF general requirement	Avro Canada C102 Jetliner - J C Floyd
1952	3	20	Arrow	RCAF All Weather Interceptor Team submits its final report	Storms of Controversy, by Palmiro Campagna - 1992
1952	6	0	Arrow	A.V. Roe Canada submits detailed proposal to RCAF for single engine delta fighter entitled C-104/1 and a twin engine C104/2 - "...The mission of this aircraft is to intercept and destroy any long range bombers of the highest performance which are likely to be available to any enemy during the next five to ten years...."	Avro Museum TL 113-1952/06
1952	8	1	Arrow	British RAF choose Hawker Siddley Gloster Aircraft Co. GA-5 delta as an interceptor of high altitude, high speed atom bombers. The GA-5 is the first delta platform ordered as an operational aircraft.	Aircraft & Airport, August 1952
1952	8	1	Arrow	Editorial - Reach for your Guns : ...it's alarming to note that in 1952-53, the RCAF plans to spend \$224 million on airframes and engines but only \$3.5 million on armament. ...unless more effort is expended on the development of more effective air-to-air weapons, then the astronomical amounts that are being spent on developing more & more powerful engines and faster and faster aircraft are literally wasted.	Aircraft & Airport, August 1952
1952	8	30	Arrow	First flight of AVRO Britain's delta wing jet bomber, the AVRO 698.	Aircraft & Airport, October 1952
1952	10	25	Arrow	A.V. Roe Canada Report - "...Two previous submissions meet draft specifications of the RCAF in most respects and in some cases exceed it by a handsome margin....The RCAF puts great weight on maintaining Mach 1.5 at 50,000 ft in a 2G turn - this report details the factors involved...."	Avro Museum TI 113-1952/10
1952	11	1	Arrow	U.S. Air Force orders production of America's first delta wing fighter, the Consolidated Vultee F-102.	Aircraft & Airport, November 1952
1952	12	1	Arrow	First flight of Handley Page Victor jet heavy delta bomber being produced for the British RAF.	Aircraft & Airport, February 1953
1952	12	19	Arrow	Government Letter by Minister C. D. Howe to Defence Minister Clayton - "...I must tell you that the design staff at Avro is far from competent to undertake work of this importance. Their designing record to date is very bad indeed, measured by any standard. If we must have further development work, let us contract with a British firm....."	Avro Museum RL 853-1952/12
1953	1	4	Arrow	Avro final design submitted to RCAF was for C-105/1200, delta wing aircraft.	1999 Calendar published by Adlin Group
1953	3	1	Arrow	Design work on Avro's new delta wing fighter is delayed while Government debates whether or not to proceed with fostering new designs in Canada as oposed to modifying other nation's designs to meet Canadian requirement....	Aircraft & Airport Magazine
1953	3	1	Arrow	RCAF issues Operational Requirement ORI/I-63 followed by RCAF Specification AIR-7-3 "Design Studies of Prototype Super-Sonic All-Weather Interceptor Aircraft" - written around a projected threat analysis for the following ten year period, to 1963	Storms of Controversy, by Palmiro Campagna - 1992
1953	3	14	Arrow	Introduction of intake ramp boundary layer bleed on the Arrow.	Avro CF105 Engineering Chronology Sept 1955

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1953	5	0	Arrow	AV Roe submits official response to RCAF Spec AIR-7-3 entitled - 'Design Study of Supersonic All-weather Interceptor Aircraft' - "...The RCAF studies had indicated that performance in excess of their requirement was of little use, so that every effort should be directed to getting the lightest and hence cheapest aircraft that would do this job.....the most promising fire control and armament configuraton for this fighter appears to be the Hughes MX 1179 system together with six Falcon guided missiles.....achieving a range of 1500 miles ....no hope with 1000 sq ft wing, fair chance with 1200, virtual certainty with 1400 sq ft version ...."	Avro Museum TL 113-1953/05
1953	5	1	Arrow	Avro responds to RCAF request with report P/C-105/1 entitled "Design Study of Super-Sonic All-Weather Interceptor Aircraft". RCAF upon review issue Specification AIR-7-4: - Combat radius of 200 nautical miles - Combat ceiling of not less than 60,000 ft. - Maximum speed at altitude of Mach 2 - Rate of climb - 6 minutes to 50,000 ft. - Maneuverability of 2G at Mach 1.5 @ 50,000 ft. without loss of speed or altitude	Storms of Controversy, by Palmiro Campagna - 1992
1953	8	1	Arrow	Artists drawing of the proposed American Boeing F-99 Bomarc pilot-less interceptor appears in Canadian trade magazine - Aircraft	Aircraft. August 1953
1953	8	27	Arrow	First launch of Velvet Glove missile from F-86 Sabre aircraft. Rather than upgrade the weapon for the Arrow, the program was cancelled in favor of foreign missiles at a cost of 24 million.	Storms of Controversy, by Palmiro Campagna - 1992
1953	8	27	Arrow	Avro begins wind tunnel tests at Cornell Transonic Wind Tunnel in Buffalo, New York. Testing continues to September 2, 1953	Storms of Controversy, by Palmiro Campagna - 1992
1953	9	1	Arrow	First CF-105 wind tunnel tests were conducted.	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	9	18	Arrow	Avro submits report to National Aeronautical Establishment (NAE) for comment	Storms of Controversy, by Palmiro Campagna - 1992
1953	9	28	Arrow	Air Vice Marshall, Douglas M. Smith (Air Member Technical Services) receives comment from John H. Parkin, Director of the NAE: "The Cornell wind tunnel tests indicate that aerodynamically, (Avro's) CF-105/1200 configuration is capable of meeting its performance requirements, although it is important that wind tunnel measurements be extended to higher Mach numbers as soon as possible."	Storms of Controversy, by Palmiro Campagna - 1992
1953	11	30	Arrow	Liberal Minister of National Defense, Brooke Claxton makes submission to Cabinet Defense Committee concluded that no foreign aircraft could satisfy requirements. (of AIR-7-4)	Storms of Controversy, by Palmiro Campagna - 1992
1953	12	1	Arrow	The Liberal government authorizes 2 million dollars for the development of two prototype supersonic interceptors - 600 to be considered for service by late 1961 (CF-105)	Avro Car - Canada's Flying Saucer by Bill Zuk
1954	1	1	Arrow	Rolls Royce abandons it's RB-106 engine on which the Arrow was designed.	Storms of Controversy, by Palmiro Campagna - 1992
1954	1	15	Arrow	National Aeronautical Establishment(NAE) Director writes Air Vice Marshall Smith to say his favorable comment on Avro design was premature. Their full assessment of Avro's work, NAE Report LR-87, concluded that the aircraft would not meet the 2G maneuverability or 200 nautical mile radius because of supersonic drag. (first of ongoing disagreements between Avro & NAE)	Storms of Controversy, by Palmiro Campagna - 1992
1954	2	1	Arrow	George F. Hannaum, Director of Industrial Planning Service of Aircraft Industries: "One of the laws of conventional mass production is that designs must be frozen, but in military aircraft production, where improvements in the product can mean the difference between victory and defeat, designs can never be completely frozen...for example, the addition of a windshield wiper can add 127 lbs and \$5,000."	Aircraft, February 1954
1954	2	1	Arrow	Defense Production Minister, C.D. Howe confirms the government's awarding a cost-plus contract to Avro for design/construction of CF-105 prototypes.	Aircraft, February 1954

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1954	2	16	Arrow	In a memo, Air Vice Marshall Smith advises Air Marshal Slemon, that the Avro's aircraft would meet the requirement because of the increased fuel capacity Avro had included	Storms of Controversy, by Palmiro Campagna - 1992
1954	4	1	Arrow	Principles of Military Aircraft Development by Group Captain H. R. Footitt " An aircraft must be designed initially for a single primary role. .... 'Once production starts, however, suggested changes must be carefully screened to ensure that only the truly vital ones cause any production delay...."	Aircraft, April 1954
1954	4	6	Arrow	Avro submits estimated design and manufacture cost for various quantities of CF-105	Canadian Heritage Calendar
1954	6	1	Arrow	US General Nathan F. Twining, Chief of Air Staff, USAF advised the Canadian Chief of Air Staff, Air Marshall Roy Slemon that the US had initiated an American design competition for a long range interceptor, and requested that the Canadian plane be evaluated with those in the competition.	Storms of Controversy, by Palmiro Campagna - 1992
1954	6	1	Arrow	Defense Minister Brooke Claxton: "by the time we have our supersonic fighters to replace the F-86E Sabre and CF-100 Canuck it is at least possible that these will be the last aircraft to depend extensively on human beings."	Aircraft, June 1954
1954	6	10	Arrow	Dr. John J. Green, the DRB scientific advisor in a memo, states that the combat radius of the CF-105 is 635 nautical miles on internal fuel tanks only.	Storms of Controversy, by Palmiro Campagna - 1992
1954	7	0	Arrow	Avro Report - CF-105 Twin Engine Fighter ..... Comabt speed and range, and ferry range defined by the new RCAF Spec AIR-7-4...Combat radius with Curtiss Wright YJ67 W1 engines.... high speed mission 200 nautical miles (436 w/full fuel)....Max Range mission 306 nautical miles (635 w/full fuel)...Ferry range1869 nautical miles with external fuel tank.....Aircraft to operate in temperatures ranging from -65 to +160 F without modification....Armanment 8 Hughes Falcon / 3 Sparrow missiles.	Avro Museum TL 113-1954
1954	7	0	Arrow	AV Roe submits official response to RCAF entitled: "CF-105 Twin Engined SuperSonic All-Weather Fighter" - "...main role - high altitude, all weather, night and day interception and destruction of enemy bomber aircraft...."	Avro Museum TL 113-1954/07
1954	7	15	Arrow	Canadian Air Marshall Slemon forwarded a copy of A.V. Roe's design study to the Americans.	Storms of Controversy, by Palmiro Campagna - 1992
1954	9	29	Arrow	National Aeronautical Establishment (NAE) internal memo: "Our opinions differ in various ways from those of the company (Avro) or the RCAF.... Even to the opinion that the NAE is anxious to hinder the straight forward development of the (Avro) aircraft. Nothing could be further from the truth"	Storms of Controversy, by Palmiro Campagna - 1992
1954	10	20	Arrow	AV Roe Report - Production of An All-Weather Long Range Fighter - "...we can say accurately that it takes about five years for aircraft manufacturers any where in the world to produce aircraft in quantity from the beginning of design ....by this time the aircraft is obsolete, and so are those that have been planned for the next year and the next....." The document goes on to detail the Cooke-Graigie method of building prototype aircraft from production line development processes to save the time and mone associated with bulding pre-production prototype models....	Avro Museum TL 113-1954/10
1954	11	17	Arrow	Introduction of the 5 per cent notch on the Arrow wing to prevent pitch up.	Avro CF105 Engineering Chronology Sept 1955
1954	11	19	Arrow	RCAF request that US National Advisor Committee on Aerodynamics (NACA) to be consulted in: "Joint report on RCAF-DRB-NAE visit to Langley Laboratories to discuss aerodynamic problems of Avro CF-105 aircraft"	Storms of Controversy, by Palmiro Campagna - 1992
1954	11	30	Arrow	National Aeronautical Establishment question Avro drag estimates claiming Arrow would not fly supersonic - Dept of National Defence call for slow down on production until independent verification could be obtained.	Canadian Heritage Calendar

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1954	12	4	Arrow	First run of Pratt & Whitney J-75 engines in an Arrow.	Storms of Controversy, by Palmiro Campagna - 1992
1954	12	10	Arrow	Decided only 6, not 8, Falcon missiles to be installed	Avro CF105 Engineering Chronology Sept 1955
1954	12	14	Arrow	Decision to revert to 8 Falcon missiles.	Avro CF105 Engineering Chronology Sept 1955
1954	12	20	Arrow	Avro called on carpet over NAE submission to NACA - a second NACA meeting was called that vindicated Avro	Storms of Controversy, by Palmiro Campagna - 1992
1954	12	20	Arrow	Avro/RCAF/NACA meeting in Washington - NACA regarded 'Area Rule' as useful.	Avro CF105 Engineering Chronology Sept 1955
1954	12	20	Arrow	National Advisory Committee for Aeronautics (NACA), on hearing from the RCAF, National Aeronautical Establishment (NAE), Defence Research Board (DRB) and Avro, found that the C-105 design using 'area rule' meet RCAF specifications - production was resumed	Avro Aircraft and Cold War Aviation by R. Whitcomb
1954	12	21	Arrow	Taxi trials of Arrow 201 begin.	Storms of Controversy, by Palmiro Campagna - 1992
1955	1	1	Arrow	"Production of a Fighter", by R.K. Anderson, Assistant Industrial Engineering Manager, Avro Aircraft: - "...time from conception through design, development and quantity production was five years... It is now possible to make several prototypes from production tooling... revisions that are a result of testing are the only changes necessary. Changes that would have occurred due to the difference of methods in construction of a prototype and production aircraft are eliminated.	Aircraft, January 1955
1955	1	2	Arrow	Jim Floyd named Vice President and Director of Engineering of AvroO Aircraft, leading the team that was responsible for the Avro Arrow.	1999 Calendar published by Adlin Group
1955	3	23	Arrow	Conservative Cabinet approved \$40 million contract with Avro Aircraft for design, development and tooling of eleven prototype CF-105's....designed for the Canadian north, it was acknowledged that the US and UK or other Nato countries would have little interest in the plane...	Conservative Cabinet Minutes - Government Archives
1955	3	23	Arrow	Conservative Cabinet - "As good as this aircraft might turn out to be, it was unlikely that other Nato governments would adopt it ....as the aircraft was designed to meet conditions peculiar to Northern Canada.....we could not expect the US and UK to adopt a Canadian plane rather than develop one of this importance themselves'	Conservative Cabinet Minutes - Government Archives
1955	5	2	Arrow	Avro Memo by Harvey R. Smith Avro VP Manufacturing to J C Foyd VP Engineering - "...the philosophy covering our approach has been, and continues to be, predicated on producing the best possible product for the purpose intended, consistent with good management of funds, labour, tooling materials etc.....	Avro Museum TL 113-1955/06
1955	6	0	Arrow	Avro Brochure on the Arrow - "...first aircraft to be built with production tooling from production drawings....the manufacture of aircraft on experimental tooling has been discontinued....structural tests will be performed on complete aircraft assemblies prior to first flights....The CF-105 is considered by both the RCAF and US Airforces as being the most advanced manned project of its kind in terms of firepower and performance..."	Avro Museum TL 113-1955/06
1955	6	18	Arrow	Introduction of leading edge droop on the Arrow wing.	Avro CF105 Engineering Chronology Sept 1955
1955	6	24	Arrow	Avro submits revised costs to RCAF due to changes required to accommodate P&W J75 engines in Mk1 aircraft and the future modifications needed for installing the Orenda Iroquois in Mk2 aircraft	Canadian Heritage Calendar

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1955	10	1	Arrow	Air Marshall Slemon and Oman Solanalt Chairman of the Defense Research Board invite high level technical delegation of USAF to visit Avro and study the program between October 31st and November 1st, 1955. They were asked to provide opinion as to the "essentiality of the 105 project to the defense of North America" and asked flat out if they would abandon the project under similar budget restraints.	Storms of Controversy, by Palmiro Campagna - 1992
1955	10	1	Arrow	General Price of US tech team reviewing CF-105 advises Canadian counterparts that the Bomarc missile was being developed as an addition to the manned interceptor.	Storms of Controversy, by Palmiro Campagna - 1992
1955	10	6	Arrow	US issues specification for competing Mach 3 F108 Rapier - (aircraft never built, never flown - project cancelled Sept 23, 1959 following the cancellation of the Arrow)	
1955	10	9	Arrow	Letter sent to Ralph Campney, Minister of National Defense from Donald A. Quarles, Secretary of the Air Force recommended that "development and production of CF-105 proceed as planned"	Storms of Controversy, by Palmiro Campagna - 1992
1955	11	0	Arrow	Avro Report - CF-105 Model Specification - "...The aircraft defined herein shall be the first aircraft of the contract and shall be designed to the requirements of RCAF Specification AIR-7-4...with aircraft positioned at the end of the runway, the elapsed time from pushing first start button to start of first engine until aircraft reaches a level flight combat speed of Mach 1.5 at 50,000 ft at gross weight of 58,975 lbs... 3.7 minutes....."	Avro Museum RL 853-1955/11
1955	11	1	Arrow	Following an inspection of Avro's facility and projects, the USAF team stated that the CF-105 would be the optimum interceptor for the early 1960's (at least until the US F-108, which bore a remarkable resemblance to the CF-105, were to come into service - in the end, the design limits for the F-108 aircraft would be the thermal limits of the aluminum alloy structure).	Avro Aircraft and Cold War Aviation by R. Whitcomb
1955	11	3	Arrow	Letter from Defence Research Board / National Aeronautics Establishment concludes that the Arrow would be no better than American F-102.	Storms of Controversy, by Palmiro Campagna - 1992
1955	11	9	Arrow	Letter to Canadian Minister of Defence Ralph Campney from Donald A Quarles Dept of the US Airforce - "...There is no doubt that, at the drafting board stage , the CF-105 is to be a very useful aricraft well suited to the long distances and severe atmosheric conditions of the Canadian north, which would serve the RCAF as an effective weapon against long range sunpersonic aircraft flying at high altitudes...."	Avro Museum RL 853-1955
1955	12	5	Arrow	Defence Minister Campney reports that the US Secretary of Air Quarles had said the US could not participate in the CF-105 program because of its own industry.....the Minister indicated that if the CF-105 program were abandoned now, the government would be faced with explaining why it had spent \$50 million then dropped it. ....this would have a serious effect on NATO allies as well as being (politically) emabarrasing domestically...If the program were allowed to proceed, it could be said that , regardless of the results, a least a serious attempt had been made to plan for the years to come...a CF-105 was now estimated to cost \$2-3 million	Conservative Cabinet Minutes - Government Archives
1955	12	7	Arrow	Conservative Cabinet, upon studying Avro's revised cost estimate of \$300 million for 40 aircraft and 14 engines the Defence Minister recommends CF-105 development be limited to elevon aircraft with approval of an additional \$117.2 million...137 CF-100 aircraft be modified as a stop gap in air defence (\$12.4 million) ..\$65 million be spent procuring the US Sparrow missile for four CF-100 squadrons	Conservative Cabinet Minutes - Government Archives

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1955	12	7	Arrow	Conservative Cabinet - Cabinet Defense Committee recommends development of just 8 CF-105 aircraft ..... Minister of Defence recommended approval of a reduced CF-105 program,, modification to the CF-100 and procurement of the 'Sparrow' missile .....by allowing this limited development to proceed, it could be said that, regardless of the results, at least a serious attempt had been made to plan for the defense of the country.....abandoning the program would be embarrassing domestically.....the scheme proposed at least would postpone the time at which it might have to be admitted that the cost of adequate air defense was more than Canada could bear.....It would be sensible to proceed with procurement of the 'Sparrow' missile since the 'Velvet Glove' was not likely to be successful.	Conservative Cabinet Minutes - Government Archives
1955	12	19	Arrow	Avro Report - Engine Center of Gravity Envelopes - ....Its determined that when the 6,175 lb P&W J75 is replace by the 4500 lb Orenda Iroquois, the Iroquois will have to be moved aft 27.5 inches aft...	Avro Museum TL 113-1955/12
1955	12	19	Arrow	Letter by J C Floyd Avro to Sir Roy Dobson A.V. Roe Manchester UK - "....Nicholson, Chief of the Supersonic Aerodynamics Group at the Royal Aeronautical Establishment , emphatically said that he believed the CF-105 is more advanced than any contemporary aircraft on this side of the Iron Curtain..."	Avro Museum RL 853-1955
1955	12	22	Arrow	US Airforce Evaluation of the CF-105 / Iroquois - ....in northern operations we prefer the CF-105 by a fair margin over our F102B....Canadian based Mach 2 CF-105's a valuable compliment to our own Mach 1.5 F100b's....	Avro Museum TL 113-1955/02
1956	0	0	Arrow	the RCAF seemed to go along with Avro's specification for the Hughes MA-1 Fire control system for the Arrow until Air Vice Marshall Easton, Chief of Operational Requirements after consulting with the Americans chose RCA to build a new and highly sophisticated Astra radar control system to go with the US Sparrow 2D missile. Right after the Sparrow was specified for the Arrow, the US Navy and Douglas cancelled development and Easton went about seeing if Canada could take over development ..Fred Smye of Avro warned it would be the end of an independent RCAF	Randy Whitcomb / Arrow Recovery.org
1956	1	1	Arrow	Orenda receives official notification that the USAF was interested in the Arrow only if it were fitted with the PS-13 Iroquois engine....in addition the USAF was interested in the Iroquois for other aircraft including the B-52 bomber.	Storms of Controversy, by Palmiro Campagna - 1992
1956	1	15	Arrow	changes in the weapon system had a major impact on design - the size of the nose had to be enlarged from 24 to 38 inches to accommodate new radar disc - new fire control system was to make Arrow completely automatic from the ground with minimal pilot input	Canadian Heritage Calendar
1956	1	19	Arrow	Decision made not to build prototype aircraft - aircraft to be manufactured direct from production tooling. (Process known as the Cook-Craigie Method.)	1999 Calendar published by Adlin Group
1956	6	7	Arrow	Avro Memo by J C Floyd Avro VP Engineering - "...Minneapolis-Honeywell informed by Avro that RCAF determined to carry out some kind of aircraft handling evaluation - MH damping system critical. Even if system were available on May 1957 rather than Aug 1957 it would be running 3-4 mointhes behind on the date required to get authority to produce the twelfth aircraft and beyond...."	Avro Museum RL 853-1956
1956	6	12	Arrow	Avro Memo by J C Floyd Avro VP Engineering to Sir A Hall Avro Manchester UK - "....Hughes (US) have magnanimously agreed to hand over the damping system data to Minneoplis-Honeywell/RCA which should considerably help the program along on this particular aspect....."	Avro Museum RL 853-1956



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1956	6	23	Arrow	"Where We've Gone Wrong On Defence" - Maclean's Magazine article by Lieutenant General Guyt Simonds, who had just retired as Chief of Staff....Simonds argues that the Arrow would be obsolete before becoming operational because of advances in missile technology.	Maclean's Magazine
1956	6	26	Arrow	Canadian RCA wins contract for new missile fire control system known as ASTRA, even as the Americans abandoned the Sparrow 2 missile, which was taken over by the Canadair and Westinghouse in Canada.	Storms of Controversy, by Palmiro Campagna - 1992
1956	6	27	Arrow	Avro Memo by J C Floyd re visit to Edwards Airforce Base -USA - "...McDonnell F101 - US Chief of Flight Research commented that they were having more structural and aerodynamic problems with this aircraft than any other supersonic aircraft.It has a marked pitch-up which has beenm difficult to cure, and has a bad roll-yaw characteristic due to inertia coupling. They have also had some control buffeting problems and the aircraft is restricted in altitude at the present time to around 40-45,000 ft....."	Avro Museum RL 853-1956
1956	7	0	Arrow	Avro Report -'Armament Storage' - ...report envisions 10 minute turnaround on re-arming CF-105	Avro Musuem TL 113-1956/07
1956	7	1	Arrow	Contrary to advice of the US technical committee and over the objections of Avro, Vice President Fred Smye told by Chief of Air Staff that RCA to provide fire control system.	Storms of Controversy, by Palmiro Campagna - 1992
1956	7	4	Arrow	Avro Memo by J C Floyd Avro VP Engineering requests corporate cost estimate for further development of the CF-105 - more speed, higher altitude, better radar with long range missiles and alternative roles - recon, bomber. Response requested by July 27, 1956	Avro Museum RL 853-1956/07
1956	7	12	Arrow	Avro Memo by J C Floyd Avro VP Engineering to T. C. Dunkin Avro Manchester UK - "...we understand that the CF-105 Project for the UK is now abandoned...."	Avro Museum RL 853-1956
1956	10	6	Arrow	The Government concerned about costs, limits Arrow to eleven aircraft, the project being subject to review after the first flight	Conservative Cabinet Minutes - Government Archives
1956	10	12	Arrow	Avro Memo by J C Floyd to Fred Smye Avro General Manager - "...schedule has been changed to show delivery of the first interim P&W J75 engine for the CF-105 in August 1958 rather than February 1958 and the following aircraft are re-scheduled accordingly....."	Avro Museum RL 853-1956
1956	11	15	Arrow	Avro Letter by J C Floyd to John McCulloch Avro UK - "...believe it or not, we still do not have any detail drawings of the Sparrow missile which we have to fit into the CF-105...."	Avro Museum RL 853-1956/11
1956	11	30	Arrow	Avro Memo by J C Floyd to H R Smith Avro Manufacturing - "...there are still some 250 drawings outstanding....as of Nov 23 we had releasased 33,023 parts.....the toal number of parts estimated n Aug 1956 for the first aircraft was 32,895....Changed parts as result of test programs etc now involve an additional 1700 equivalent parts..."	Avro Museum RL 853-1956/11
1956	11	30	Arrow	Avro Letter by J C Floyd to John McCulloch Avro Uk - "...due to some slippage on design, and some n production, the first aircraft flight date is back by approximately three months, ie: flight in Aug 1957 rather than May 1957..."	Avro Museum RL 853-1956/11
1956	12	0	Arrow	Avro Brochure - CF-105 Program 4 - ....to present a more realistic schedule and revised forecast of costs, and at the same time to provide for the change in concept between the MK1 and MK2 aircraft the development program has been reduced tor 8 aircraft, the last three to he Iroquois powered MK2. ....the implications of the installation of ASTRA 1 make it no longer possible to utilize the aircraft systems aready frozen in the J75 MK1 version - the Iroquois powered MK2 to have new / revised air-conditioning, electrics, haydraulics and fuel systems....	Avro Museum TL 113-1956/12
1956	12	1	Arrow	Arrow design now called for Astra 1 fire control (2731.5 lbs) and four Sparrow 11 missiles (431 lb each). Total 2850 lbs.	

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1956	12	16	Arrow	Avro Memo by J C Floyd Avro VP Engineering to Air Vice-Marshall M. M. Hendrick - "...we have fired nine free flight models and we estimate that we have now achieved 2200 hours of useful windtunnel time, involving approximately 2,800 runs. We have tested up to Mach 2 in the Langley tunnel, and believe that our present performance estimates are based on solid background of test results...."	Avro Museum RL 853-1956
1957	0	0	Arrow	Avro Report - CF-105 Sparrow 2 Installation - Avro proposal of Feb 15 for installation not completed as Sparrow 2 still under development and necessary data to justify manufacturing drawings not expected until April 1958....The Astra fire control system not sufficiently detailed to allow evaluation of its capabilities...	Avro Museum TL 113-1957
1957	1	0	Arrow	Don H Rogers, Avro Chief of Flight Operations - "...its is the considered opinion of most Canadian test pilots tht manned military aircraft will be designed and produced for many years to com..."	Canadian Aviation Magazine
1957	1	1	Arrow	National Aeronautical Establishment (NAE) Director of Engineering, John Orr reports that Avro and NAE performance figures were finally coming into agreement but by January 21st, the NAE was claiming there estimates were more accurate than Avro's.	Storms of Controversy, by Palmiro Campagna - 1992
1957	1	21	Arrow	Avro Memo by J C Floyd Avro VP Engineering - "...it appears that the RCAF intend to control in detail, the development on fthe aircraft from first flight onwards.....If this is to be the case, and we feel most strongly that this must not be so, then it is clear that not only are we not the overall weapon system manager but we shall have relinquished the technical management of the airframe itself...."	Avro Museum RI 853-1957
1957	2	14	Arrow	Conservative Cabinet approves an additional \$46.39 million for development of the Iroquois engine and CF-105 but authorize procurement of just eight CF-105 aircraft....The Defence Minister at the request of affected MP's reports that the Government's cancelling of the CF-10 MK6 had Avro layoffing 1750 men - Orenda 1200....a political cost of 5 votes per man laid off ...a suggestion was made that the Government build 35 CF-100 MK5's and give them to the Danish government as mutual aid at cost of \$10-15 million....The Minister of Labour suggests the company is adopting a vindicative attitude and their layoffs were going beyond what was necessary...	Conservative Cabinet Minutes - Government Archives
1957	2	18	Arrow	Avro Memo by J C Floyd Avro VP Engineering to Fred Smye Avro General Manager re Engineering Re-organization - "...CF-105 management restructured..... Technical Design - J A Chamberlain....Equipment Design Group - J R Booth.....Product Design Group - F P Mitchell.....Project Accounting - I M Liss...."	Avro Museum RL 853-1957
1957	2	22	Arrow	RCAF memo names the AVRO CF-105 the "Arrow"	Storms of Controversy, by Palmiro Campagna - 1992
1957	3	0	Arrow	Avro Report - Damping System Development - ...Hughes Aircraft system contracted in Nov 1954 delayed by changes in configuraton in the CF-105.....the contract was terminated Sept 1956 after Minneapolis-Honeywell given contract...	Avro Museum TL 113-1957
1957	3	0	Arrow	Canada's failed Velvet Glove Missile's development took five years, and cost \$24 million before being cancelled	Aircraft Magazine
1957	3	1	Arrow	Avro Report - Balance Report MK2 Aircraft - ...some fiqures are preliminary - particularly in the case of the rear fuselage, engine installarion and some systems which are being extensively re-designed...	Avro Museum TL 113-1957/03
1957	3	6	Arrow	Avro's Jim Floyd and others go to Ottawa to meet with Defense Research Board (DRB) and RCAF. DRB saw the need for interceptors to 1970 but felt a Mach 3 capability desirable with 60,000 ft. ceiling and 1,000 mile range. Dr. Watson of DRB with RCAF support, recommended degrading the airframe performance to allow for weapons of greater range, preferably with atomic warheads.	Storms of Controversy, by Palmiro Campagna - 1992

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1957	3	6	Arrow	Avro Letter by J C Floyd Avro VP Engineering to Dr. Courtland S Perkins - Avro forwards Arrow data to US Airforce for their evaluation and potential requirement.....	Avro Museum RL 853-1957
1957	3	12	Arrow	Avro Memo by Fred Smye Avro General Manager re visit to Ottawa - ".....recent study which Defence Research Board had carried out on the defence of Canada from 1960-70 showed a definite requirement for a manned interceptor in addition to guided missiles.....foresee a Mach 3 aircraft with 1000 nautical mile radius at 60,000 ft....."	Avro Museum RL 853-1957
1957	3	29	Arrow	Avro Memo by J C Floyd Avro VP Engineering to R Lindley Project Manager - ".....request that Project Studies be undertaken.....possible increase in performance of the CF-105....design study of two seat CF-105 trainer.....design study of a CF-105 reconnass version.....design study of the aircraft to take the CF-105's place.....increase range of proposed Navy vertical takeoff aircraft.....investigate use of black boxes in trainer aircraft to simulate a more sophisticate aircraft.....project study on feasibility of mono-rail system for eastern Canada....."	Avro Museum RL 853-1957
1957	4	4	Arrow	British Defence Policy White Paper recommends terminating production of manned aircraft in favour of missiles - a decision that leads to the demise of several aircraft companie.....	
1957	5	0	Arrow	Avro Report - Readiness Facility - ".....positioned at the end of the runway, the elapsed time from the initiation of engine starting, until the aircraft becomes airborne shall not be moree that one minute.....readiness capabilities of the Astra fire control system not known but may require a large amount of high quality electrical power and cooling air prior to flight....."	Avro Museum TL 113-1957/05
1957	6	0	Arrow	Avro Report - Arrow 2 Armament - "....the curent Sparrow 2D missile is not fully compatible with Arrow 2 as it was developed for lower performance aircraft....it is assumed the missile will be upgraded...."	Avro Museum TL 113-1957/06
1957	6	1	Arrow	Avro again suggests the Sparrow 2 be abandoned noting that the Defense Research Board report suggested it would be incompatible with the Arrow.	Storms of Controversy, by Palmiro Campagna - 1992
1957	6	10	Arrow	Avro Report - Reconance Arrwow - "....The design target os the MK 3 Arrow was chosen as Mach 2.5 @ 90,000 ft altitude.....This feasible within the present state of the art, However it should be immediately established that there is a need for such arcraft through market research....." (MK 4 Arrow @ 110,000 lbs woud require 15,000 ft of runway to takeoff)	Avro Museum TL 113-1957/06
1957	6	10	Arrow	Diefenbaker's Conservative Party won a minority government and was concerned by the previous Liberal government's support of Avro and had no love for any project originating with the likes of Liberal C.D. Howe.	Avro Aircraft and Cold War Aviation by R. Whitcomb
1957	6	19	Arrow	Avro Memo by J C Floyd Avro VP Engineering to R Lindley Avro Project Manager - ....Floyd requests costs of RCA Astra System deleting those items for which ground control would not be available for some time after the CF-105 went into operation....."	Avro Museum RL 853-1957
1957	6	20	Arrow	National Aeronautics Establishment (NAE) letter to Defense Research Board (DRB) by new NAE Director, D.C. MacPhail claiming the Arrow would break up in flight because it is to be equipped with artificial stability augmentation system which goes beyond what is being attempted in other high speed aircraft.	Storms of Controversy, by Palmiro Campagna - 1992
1957	6	21	Arrow	Avro Letter by J C Floyd Avro VP Engineering to Mr. I Fleming RCA - "....Our engineering contract includes a modified systems management, the RCAF choosing the weapon and fire control system, and then giving us the job of project coordinators.....All told I have about 1900 people, of which about 1100 are in the Design and Development Group, 500 in the Static and Functional Testing, Flight Test and Laboratory Groups....."	Avro Museum RL 853-1957

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1957	6	27	Arrow	Avro Memo by J C Floyd Avro VP Engineering to R Lindley Avro Project Manager - ".....The RCAF could choose a weapon being developed by the US.....the other alternative, and one which the RCAF had apparently chosen, was to take a missile which had been abandoned by the US Navy and develop it.....This would entail an enormous missile development and pre-production program for Canada, which might run into hundreds of millions of dollars and even when this was through, the missile would not necessarily be commpatible with a continental defence system....."	Avro Museum RL 853-1957
1957	6	28	Arrow	Avro Memo by J C Floyd Avro VP Engineering to Fred Smye for discussions with General Footit - There are four parts to the program.....Airframe - Avro....Engines - Orenda....Fire Control System - RCA.....Missile - Douglas Aircraft / Canadair.....(the missile was the one outstanding incompatibility)	Avro Museum RL 853-1957
1957	7	18	Arrow	Dr. Courtland Perkins, Chief Scientist, USAF, advises AVRO V.P. Engineering, Jim Floyd that a US contract for a long range interceptor might be cancelled and he wished to be kept abreast of all developments. Avro thought it could meet USAF specifications with in flight re-fueling.	Storms of Controversy, by Palmiro Campagna - 1992
1957	7	29	Arrow	Avro Memo by J C Floyd Avro VP Engineering re US Airforce visit - "...US Airforce have let a contract for a design study on a LRI (long range inteceptor) wit North American Aircraft....since the Arrow comes closer to the requirement at th present time, Avro should keep USAF constantly aware of Arrow progress...."	Avro Museum RL 853-1957
1957	8	0	Arrow	Engineering Conference of contractors and military with respect of RCAF Specifications AIR-7-4 / AIR-7-6	Avro Museum TL 113-1957/08
1957	8	1	Arrow	NORAD (North American Air Defense) agreement was announced. Although steeped in controversy, the new Conservative Prime Minister and Minister of Defense hastily accepted the advice of the Canadian military and agreed to integrate the RCAF and the USAF for the air defense of the continent. As implications of the agreement began to sink in, an aggressive marketing of the IM-99 BOMARC was directed at the Canadian government. The Diefenbaker government came to rely on a cost-sharing arrangement that would substantially reduce the overall cost of the BOMARC.	Avro Aircraft and Cold War Aviation by R. Whitcomb
1957	8	30	Arrow	Avro Letter by J C Floys Avro VP Engineering to RCAF Air Vice Marshall Hendrick re weapon selection - "....Avro have not been in a position to participate in the selection of the weapon for the Arrow....We have been put the position of installing the weapon chosen by yourselves (RCAF) ....It has appeared to us however, standing at the sideines, that the whole missile program is now in an uncertain state....aggravated considerably by the tightness of funds in the Arrow program....."	Avro Musuem RL 853-1957
1957	8	30	Arrow	Avro's Jim Floyd, VP Engineering, writes Air Vice Marshall Hendrick to explain the problems with the Sparrow missile, but the RCAF none-the-less presses ahead.	Storms of Controversy, by Palmiro Campagna - 1992
1957	9	9	Arrow	Avro Report - Long Range Arrow - ".....The potential of an airplane lies in its flexibility therefore we must.....arrange for more power for speed and altitude.....increase fuel load for greater range.....accept a higher takeoff weight to achieve goals.....These changes are more than minor modifications....."....Avro proposes a configuration with operational radius of 900 nautical miles and speeds of Mach 2.5 at 90,000 ft...."	Avro Museum TL 113-1957/09
1957	9	17	Arrow	After a stormy meeting with AVRO President, Crawford Gordon, Diefenbaker informs his close confidant, Gratton O'Leary of the Ottawa Journal that: "I have just told him (Gordon) the thing (Arrow) is off, this thing is going to cost a billion dollars....we have no market for them - we can't sell them....they're costing too much..."	Avro Aircraft and Cold War Aviation by R. Whitcomb
1957	9	17	Arrow	Attending a meeting with 50 RCAF officers at the newly constituted "Arrow Project Office", Zurakowski was shocked to learn that those present were under strict orders not to ask questions about the Arrow.	The Legend of the Arrow

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1957	10	4	Arrow	First CF-105 Arrow reached completion status and was featured at a cermonial 'rollout' just 28 months after release of drawings in June 1955	Avro Car - Canada's Flying Saucer by Bill Zuk
1957	10	4	Arrow	Roll-out ceremony of the Arrow at Malton	Fall of An Arrow by Murray Peden
1957	10	4	Arrow	At the Arrow's Rollout Ceremony, Canadian Minister of Defense, George Pearkes commented: "they symbol of a new era for Canada in the air". Canadian Chief of Air Staff, Air Marshall Hugh Campbell commented: "The planned performance of this aircraft is such that it can effectively meet and deal with any likely bomber threat to this continent over the next decade	Fall of An Arrow by Murray Peden
1957	10	14	Arrow	Arrow Roll Out Cermony comments - "...they (Arrows) symbol of a new era for Canada in the air" - Defence Minister Pearkes..."The planned performance of this aircraft (Arrow) is such that it can effectively meet and deal with any likely bomber threat to this continent over the next decade"- Chief of Air Staff, Air Marshall Hugh Campbell	Avro Arrow by The Arrowheads
1957	10	19	Arrow	273rd Air Council meeting in Ottawa: Canadian Vice Chief of the Air Staff, Air Vice Marshall, Larry Dunlap advised that American defense includes long range interceptors followed by surface to air missiles.	Storms of Controversy, by Palmiro Campagna - 1992
1957	10	19	Arrow	273rd Air Council meeting in Ottawa: Air Member Personnel, Air Vice Marshall J. Gordon Kerr, questioned the value of continuing with the Arrow given that it would only be in use for two or three years before American interceptors were ready. It's not known if his comments influenced the outcome.	Storms of Controversy, by Palmiro Campagna - 1992
1957	10	24	Arrow	Conservative Cabinet - Minister of Defense reports that due to the government cancelling production of the CF-100 MK5, Avro was laying off some 1750 men.....the Miinster of Labour thought the company was adopting a vindictive attitude and that their layoffs were going well beyond what was necessary.....Three Conservative Members had been elected on a platform that there would be no layoffs.....Consideration should be given to what size of layoff could be acceptable politically on the assumption that five votes would be lost per man laid off. This could involve almost 10,000 votes.....Avro officials should be asked to come to Ottawa today if possible and that they be asked to hold up any layoffs...	Conservative Cabinet Minutes - Government Archives
1957	10	25	Arrow	Conservative Cabinet - re Avro layoffs .....Avro / Orenda declared that they were almost entirely dependent on defense contracts for their operation. They were waiting for a decision with respect of the CF-105. If this program were also cancelled, both the companies would have to go into liquidation.....The Government considers building and giving away \$25 million worth of CF-100's to Denmark to preserve votes. It was pointed out that an expenditure of \$25 million to save 3 Members of Parliament would be considered all out of proportion....	Conservative Cabinet Minutes - Government Archives
1957	10	25	Arrow	Conservative Cabinet acknowledges that the Avro and Oreanda layoffs would be directly attributed to the Government and could influence the Government's chances of re-election - enquiries should be made to see if some NATO countries might accept a gift of a limited number of CF-100's (the RCAF had no need of more CF-100's)	Conservative Cabinet Minutes - Government Archives
1957	10	25	Arrow	Defence Minister Pearkes confirms in a press conference that the RCAF would require a manned inteceptor for some years to come. In reference to PM Diefenbaker's Sept 23 statement ....'Let the makers re-examine the cost and then we will know where we are going"	Arrow Timeline

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1957	10	29	Arrow	Conservative Cabinet - re Avro/Orenda layoffs ...Plans to avoid political fallout from potential layoffs were reliant on the Arrow program continuing. The Defence Minister said a decision on this important project was required now. There was no time to study the (Arrow) program in its entirety but approving the program would go a long ways toward solving the layoff (vote) problem. Meanwhile, the situation could be closely watched and the program stopped if necessary.....Cabinet approved continuation of the Arrow program for another 12 months, including the ordering of 29 pre-production aircraft and accelerated development of the Iroquois engine. And the procurement of an additional 20 CF-100 Mk5 aircraft and the Orenda engines for them.	Conservative Cabinet Minutes - Government Archives
1957	10	29	Arrow	Conservative Cabinet - by March 31,1958 a total of \$226,260,000 will have been spent on the CF-105 program	Conservative Cabinet Minutes - Government Archives
1957	11	0	Arrow	Defence Minister Pearkes, having considered the potential bomber threat, announces that the Arrow Program can continue another year before being reviewed again	Aircraft Magazine
1957	11	7	Arrow	Avro Letter by M. A. Pesando Avro Chief Project Engineer to J C Floyd Avro VP Engineering - "...Parkings of the USAF was alleged to have said that the aircraft to meet the US LRI (Long Range Interceptor) specification should be under 100,000 lbs. We (Avro) cannot do this without resorting to gimmicks such as in-flight re-fueling and we don't think anyone else could do it either...."	Avro Museum RL 853-1958/10
1957	12	1	Arrow	Arrow 201 used Pratt & Whitney J75P3 engines (6,175 lbs each). Arrow 202 to 205 used lighter P5 (modified P3's) weighing 5,950 lbs each. Total weight difference 450 lbs per aircraft. (Later became 650 lbs difference)	AVRO Weight & Balance Report 7-0400-34 Issue 12
1957	12	4	Arrow	First single engine run ups in Arrow 201.	Avro Arrow by The Arrowheads
1957	12	18	Arrow	Both engines in Arrow 201 run together for the first time.	Avro Arrow by The Arrowheads
1957	12	28	Arrow	Arrow 201 commence low speed taxi trials to 100 knts - 3 out 5 times the drag shoot failed to deploy	Canadian Heritage Calendar
1958	0	0	Arrow	"...originally projected to cost \$72 million, the RCAF's Astra fire control system had leaped to \$208 million - roughly as much as was spent developing and building the Arrow up to the first flight and development of the Orenda Iroquois engine up to cancellation...."	Randy Whitcomb / Arrow Recovery.org
1958	1	0	Arrow	Avro Report - Arrow Progress - Avro submits extensive progress report to the government on the current status of the Arrow both at Avro and at major sub-contractors....Avro reported physical percentage completed, manhour expenditures and dollar expenditures....	Avro Museum TL 113-58/01
1958	1	3	Arrow	Completion of engine and first phase taxi trials - total engine time - 9 hours.	Avro Arrow by The Arrowheads
1958	1	18	Arrow	The Calgary Herald quotes Minister Pearkes: "I do not share the opinion that the Arrow will be obsolete before it is operational. When Russia stops building bombers it will be time for us to start thinking of some other defense."	
1958	1	20	Arrow	Avro directed to study physical installation of the US nuclear Genie missile in the Arrow ( determined that installation would necessitate 27 major structural changes to the aircraft)	Avro Museum TL 113-1958/05
1958	1	29	Arrow	US Secretary of the Air Force, James H. Douglas advises Canadian Ambassador to Washington, Mr. Norman Robertson - stated categorically that there was no place in the USAF inventory for the Arrow and the USAF was going ahead with its own F-108 long range interceptor (never built)	Storms of Controversy, by Palmiro Campagna - 1992
1958	2	1	Arrow	Diefenbaker dissolved parliament.	Fall of An Arrow by Murray Peden



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	2	19	Arrow	Avro Letter by J C Floyd Avro VP Engineering for Sir R. Dobson Avro UK - "...the first aircraft (MK2/206) is still going reasonably well, we are hoping to run engines today,since we have had such a blizzard in the last two day that we were not able to trim engines due to side flow of the intakes. When this is done we have another five days of buttoning up and inspection and we are hoping to start high speed taxi runs towards the beginning of next week. On any of these runs Zura could, of course go avaiating....."	Avro Museum RL 853-1958/02
1958	3	0	Arrow	Avro Report - Arrow Progress Report - Avro submits detailed report on percentage complete, manhours and costs	Avro Museum TL 113-1958/03
1958	3	0	Arrow	Avro Report - Arrow Mk2 Turnaround Facility - ...details as provided for in RCAF Specification AIR-7-4...."No information has been reeased on the ultimate armament to be carried by the Arrow...15 minute aricraft turnaround will require 14 men....Arrow 2 designed with original RCAF concept of a 5 minute turnaround..."	Avro Museum TL 113-1958/03
1958	3	25	Arrow	The story is told, that at dawn on Tuesday, an AVRO soothsayer had examined the entrails of a freshly-killed chicken and, finding no sign of portentous events, declared the day auspicious for the Arrow to take to the air. As the Arrow landed for the first time and AVRO test pilot Potocki in the chase Canuck turned off to land, RCAF pilot Jack Woodman in the Sabre followed him after executing an exuberant victory roll.	Aircraft Magazine - April 1958
1958	3	28	Arrow	RCAF Chief Aeronautical Engineer reports that "quantity production of aircraft as complex as the Arrow can be undertaken in Canada at a cost comparable to that for production of like aircraft in the USA."	Storms of Controversy, by Palmiro Campagna - 1992
1958	3	31	Arrow	Diefenbaker's government, like any new government felt compelled to continue programs established by their predecessors. Fulfilling their own election promises only added to the financial burden and Minister of Finance, Donald Fleming, stimulated a growing uneasiness in Cabinet over the rising cost of the Arrow program: 1954-55 \$17 million; 1955-56 \$38 million; 1956-57 \$65 million; 1957-58 \$115 million; 1958-59 \$100 million; for a total to date of \$335 million.	Fall of An Arrow by Murray Peden
1958	3	31	Arrow	Chairman of the Chiefs of Staff Committee was Army General Charles Foulkes. In meetings attended by government Cabinet representatives, a position developed that did not acknowledge the Russian bomber threat - a position contrary to the United States' belief that Russia was developing an even more advanced bomber.	Fall of An Arrow by Murray Peden
1958	4	1	Arrow	Canadian Armament Research and Development Establishment (CARDE) concludes favorable report on the Arrow. (It is not released until 1961, two years after the cancellation).	Storms of Controversy, by Palmiro Campagna - 1992
1958	4	3	Arrow	Arrow piloted by Zura flew Mach 1.4	Avro Car - Canada's Flying Saucer by Bill Zuk
1958	4	17	Arrow	Department of Defense Production contracted Canadair to manufacture Sparrow 2 air-to-air missiles for the Avro Arrow "bomber destroyer". The approval for Canada to build the Sparrow 2 came as the development program was terminated by the US Navy.	Aircraft Magazine - May 1958
1958	4	18	Arrow	on 7th test flight Arrow flew 1,000 mph (Mach 1.2) in level flight	Canadian Heritage Calendar
1958	4	22	Arrow	RCAF Test Pilot, Flight Lieutenant Jack Woodman flies Arrow for the first time.	Aircraft Magazine - May 1958
1958	4	23	Arrow	Arrow 201 completed first phase of flight testing, having flown supersonic on only its third flight.	Avro Arrow by The Arrowheads
1958	4	28	Arrow	Diefenbaker memoirs suggest Cabinet was briefed on the need for both missiles and interceptors for defense.	Storms of Controversy, by Palmiro Campagna - 1992

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	5	0	Arrow	Avro Report - Arrow 2 Electrical System - "...Avro is responsible for the installation of Astra and the design, development, installation and testing of subsidiary items such as the radome and antennas. In addition, the cockpit layout, system maintenance and investigation of electrical systems as my be required...."	Avro Museum TL 113-1958/05
1958	5	0	Arrow	RCAF requests Avro investigate modifying Arrow airframe for use with a runway arrester wire / barrier	Avro Museum TL 113-1958/05
1958	5	0	Arrow	Avro Report - 70/Simul/14 - "...the Arrow flight simulator has been designed to provide a replica of the aircraft's performance over the range of flight conditions between takeoff and Mach 2.5 and up to altitude of 80,000 ft...."	Avro Museum TL 113-1958/05
1958	5	22	Arrow	Avro Statement of Work - Contract to include repair and overhaul of 37 Arrow airframes after acceptance of by RCAF	Avro Museum TL 113-1958/05
1958	5	22	Arrow	Avro Brochure - Statement of Work - "...Modifications necessary to install Astra system in Arrow Mk1 aircraft...radar nose, radome, modificatio to cockpits, structure and systems changes, testing of modified airframes, and retrofit of wiring aand interim electrical system prior to installation of Astra....."	Avro Museum TL 113-1958/05su
1958	6	3	Arrow	Government makes public the figures on the total cost of the Arrow Program: "The total cost to the Government of the complete Arrow aircraft project including design, development, tooling and preproduction costs of the airframe, engine programs, and weapons systems up to May 1, 1958 is \$233 million. This cost also covered two complete aircraft, three in final assembly, and 32 others within the present order in various stages of manufacture	Aircraft Magazine - July 1958
1958	6	11	Arrow	Arrow RL.201 starboard landing gear failed to rotate on extension and the aircraft veered off the runway, breaking off the gear leg. (Avro Report on Arrow 201 accident June 11 finds displaced lock ring jammed rotation of the gear - a more robust Mark 2 undercarriage was to be fitted into all aircraft by 1959).	Avro Aircraft and Cold War Aviation by R. Whitcomb
1958	6	16	Arrow	Toronto telegram: "United States defense officials said today the main reason for the continued refusal of the United States to buy Canada's Avro CF105 fighter plane is that the Arrow cannot fly at top speed long enough	Toronto Telegram Newspaper
1958	7	0	Arrow	Avro Report - Arrow 2 Increased Comabt Radius - "....with addition of 9300 lbs of internal fuel, radius is increased 90% over basic Arrow 2.....this capability available by 1961 if authorization granted by Sept 1st 1958...."	Avro Museum TL 113-1958/07
1958	7	0	Arrow	Defense Minister Pearkes travelled to Washingto looking for US support saying that Canada couldn't afford SAGE, Bomarc and the Arrow . He was advised that if Canada helped fund American programs Canada could equip with the result.	Randy Whitcomb / Arrow Recovery.org
1958	7	4	Arrow	Canadian Minister of National Defense: "There are important factors necessitating the use of manned interceptors in the air defense system for many years; indeed, as far as we can see into the future	Fall of An Arrow by Murray Peden
1958	7	8	Arrow	Defense Minister Pearkes states Arrow cost could be accommodated but not with the cost of Sage ground control for the Bomarc missiles. RCAF expenses also included gap-filler radar, coastal marine aircraft, CF-100 updates, the Sparrow missile development, Astra fire control system....	Storms of Controversy, by Palmiro Campagna - 1992
1958	7	9	Arrow	Avro Memo by J C Floyd Avro VP Engineering to Avro J L Plant - ".....the RCAF ar now realizing, for a number of reasons, including the extended range of the Bomarc, that to be a flexible weapon, which is what they set out to get, the Arrow requires more range.....we should assist them to achieve this increased range if they require it, since it could have a definite bearing on whether we receive a go-ahead on a production basis...."	Avro Museum RL 853-1958/07

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	8	0	Arrow	Avro Report - P&W J75-P6 / JT 4B Engines in the Arrow - ....RCAF requested study reveals the P&W engines would weigh 2600 lbs more than the Orenda Iroquois and would require modifications to intakes, inner wing, duct bay, engine bay, rear fuselage, tail cones and stinger....	Avro Museum TL 113-1958/08
1958	8	0	Arrow	US Defence Neil McElroy tells Canadian Defence Minister Pearkes that if the Arrow is cancelled, US could assist in guarding Canadian airspace in the event of an emergency.	Conservative Cabinet Minutes - Government Archives
1958	8	1	Arrow	Zura flew Arrow 202 on its first flight.	Avro Car - Canada's Flying Saucer by Bill Zuk
1958	8	22	Arrow	Defense Minister Pearkes in recommending cancellation of the Arrow to Cabinet: - "Abandoning the CF-105 would of course be a rude shock to the aircraft industry, but it would not mean its complete cessation. DeHavilland would not be affected, nor would be transport and marine aircraft sections at Canadair..... One means of helping the industry would be to manufacture transport aircraft, under licence for Trans Canada Airlines and possibly other doemestic uses.....If the CF-105 were discontinued Canada would be completely dependent on the US for equipment for the RCAF.....To abandon the CF-105 now and undertake to produce the US F106C would be a serious political mistake".	Conservative Cabinet Minutes - Government Archives
1958	8	23	Arrow	Arrow 202 flew supersonically on only its second flight - piloted by Zura climbed to 50,000 feet at 994 miles per hour..	Avro Arrow by The Arrowheads
1958	8	28	Arrow	Minister of Defense Pearkes tells Cabinet the Cabinet of Defense Committee had reviewed Canada's air defense requirement and had agreed amongst other things, to refer to Cabinet, proposals to cancel the 105 (Arrow) program and investigate additional (Bomarc) missile installations and a possible alternative interceptor for the 105. A secret brief prepared by unknown members of the Cabinet Defense Committee to which Chairman of the Chief of Staff, Air Marshall, Hugh Campbell was assigned, is circulated. It speaks of successful testing of plane and engine and the need for a decision whether or not to go into production.	Storms of Controversy, by Palmiro Campagna - 1992
1958	8	28	Arrow	the Cabinet Defense Committee had referred to Cabinet for consideration proposals to cancel the CF-105 program and to investigate additional missile sites and a possible alternative interceptor to the Arrow	Conservative Cabinet Minutes - Government Archives
1958	9	0	Arrow	Conservative Cabinet directs Chiefs of Staff immediate investigation of the requirement for, if any, for additional air defence missile installations in Canada, and for the interceptor aircraft of the nature of the CF-105 or alternative types	
1958	9	0	Arrow	RCAf requested Avro Report - Arrow 2A Zero Length Launch - "....an extensive study of conditions / requirements necessary to catapult an Arrow into the Air....."	Avro Museum TL 113-1958/09
1958	9	1	Arrow	Early Arrow 2 aircraft to be equipped with Orenda PS13 (Iroquois) engines weighing 4,835 lbs each as compared to Mark 1 Pratt & Whitney J75P5 engines weighing 5,850 lbs (difference of 1,015 lbs each - 2, 030 lbs total per aircraft.)	AVRO Weight & Balance Report 7-0400-34 Issue 24
1958	9	1	Arrow	RCAF, cancels Astra and Sparrow programs because of huge costs and plans made to equip the Arrow with Falcon missiles and Hughes fire control system originally proposed.	Storms of Controversy, by Palmiro Campagna - 1992
1958	9	1	Arrow	Jettison able tail cone plugs used to restrict exhaust area as a means to increase long range mission. (concept evolved into modern day variable geometry tail cone technology).	Avro weight & Balance Report 7-0400-34 Issue 13
1958	9	1	Arrow	Sparrow II missiles deleted for one nuclear Genie (812 lbs) plus four Falcon missiles and Hughes fire control system (2,406 lbs) total 3,742 lbs, altering balance by +892 lbs over Sparrow II system.	Avro Museum 853-1958/08

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	9	3	Arrow	AVRO officials meet with Prime Minister and Ministers. Defense Minister Pearkes and Air Marshall Hugh Campbell did not agree with cost savings associated with cancelling Astra and Sparrow programs. Later in Cabinet, General Foulkes was of the opinion that the Bomarc would give the best defense fore the money. Despite the impact on the Arrow program, the cost of US need for SAGE ground control, the missiles and US F-106 interceptor replacement were unquestioned.	Storms of Controversy, by Palmiro Campagna - 1992
1958	9	5	Arrow	Government Memo by R B Bryce Clerk of the Privy Council to Prime Minister Diefenbaker - "...Recommended Action - cancelling forwith the contracts for the Arrow airframe, the Iroquois engine, the Astra Control System and the Sparrow 2 missile.....Reasoning - I have considered the arguement that the use of US aircraft instead of our own would be a slap in the face to the Canadian industry, but I think that can be answered best if the numbers to be bought are so small that the cost of the Canadian planes are obviously out of all proportion to the US planes, even if the CF-105 is a somewhat better plane. I think it should help in putting across this difficult decision to the public if we could announce at the same time our decision to use nuclear weapons in Canada....There wil be a real problem in the timing of any announcement of this issue...."	Avro Museum RL 853-1958/09
1958	9	6	Arrow	Arrow's only public demonstration at Canadian National Exhibition Airshow cancelled due to poor weather	Canadian Heritage Calendar
1958	9	7	Arrow	In Conservative Cabinet meeting: Finance Minister Donald Flemming suggests cancelling the Arrow now could be used advantageously as a political play by claiming that the government was abandoning an ill fated liberal administration project.	Storms of Controversy, by Palmiro Campagna - 1992
1958	9	16	Arrow	Diefenbaker's vast debt roll-over, the so-called Conversion Loan of 1958 was causing anxiety in the financial community - a selling wave caused a protracted slide in the price of government bonds. The declining economic situation resulted in government officials expressing concern over the Arrow and Iroquois programs.	Fall of An Arrow by Murray Peden
1958	9	17	Arrow	Avro Report - Astra Mk 1A Capabilities.....compiled data issued to RCAF Oct 2	Avro Museum TL 113-1958
1958	9	17	Arrow	reportedly, an inberiated Avro President Crawford Gordon meets with an infuriated PM Diefenbaker and is allegedly told the Arrow would be cancelled because it was too expensive and could not be sold to the Americans. This exchange was unlikely as such an announcement would have brought down the government.	Storms of Controversy, by Palmiro Campagna - 1992
1958	9	21	Arrow	Diefenbaker tells Cabinet of the meeting with Crawford Gordon of Avro. Cabinet decided on a comprehensive review of the Arrow program by March 31, 1959 as they could only agree to delay the cancellation until spring.	Storms of Controversy, by Palmiro Campagna - 1992
1958	9	21	Arrow	Conservative Cabinet - ....decided that the Arrow and Iroquois should not be ordered at this time but the programs should continue until March 3, 1959 while a comprehensive review of their requirement is conducted....Cabinet approved in principle the installation of two Bomarc bases in Ontario and Quebec	Conservative Cabinet Minutes - Government Archives
1958	9	22	Arrow	piloted by Avro test pilot Zurakowski, Arrow 203 flew supersonic on its maiden flight.	Avro Arrow by The Arrowheads
1958	9	22	Arrow	Avro Report - Arrow Weapon System....the document crosses out references to Astra fire control and Sparrow 2 missiles....leaving an evaluation of the US nuclear Genie missile	Avro Museum TL 113-1958
1958	9	22	Arrow	Conservative Cabinet - because the Defence Minister was of the view that if the CF-105 program was to be terminated at the end of March 1959.....Cabinet decided that it would then be wise to terminate the expensive development of the Astra fire control and Sparrow II missile and modify the CF-105 airframe in favour of of US counterparts already developed	Conservative Cabinet Minutes - Government Archives

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	9	23	Arrow	Prime Minister Diefenbaker addresses the press - "...In view of the introduction of missiles into the Canadian Air Defence System and the reduction in the expected need for manned, supersonic interceptor aircraft, the Government has decided it would not be advisable at this time to put the CF-105 into production. The Government believes however that to discontinue abruptly the development of this aircraft and its engine, with its consequent effects on the industry, would not be prudent with the international outlook as uncertain as it is....therefore the Government has decided to continue development until next March, when the situation will be reviewed again in light of all existing circumstances at that time..."PM announces termination of the Astra and Sparrow programs with the hope that our defense industry will be able to share effectively with the United States industry in one part or another of the major programs in the air defense of the North American continent"	Conservative Cabinet Minutes - Government Archives
1958	9	23	Arrow	PM Diefenbaker suggests 100 Arrows with Astra fire control and Sparrow missiles would cost \$1,250,000,000 (one and a quarter billion dollar) - without Astra/Sparrow each would Arrow would cost \$9 million	Aircraft Magazine
1958	9	23	Arrow	RCAF memo to Avro: "...the companies are instructed to keep commitments to the minimum necessary to continue the program as authorized by Cabinet."	Storms of Controversy, by Palmiro Campagna - 1992
1958	9	24	Arrow	Prime Minister Diefenbaker orders US BOEMA IM-99 BOMARC anti-aircraft missile.	Flypast by John Gellener in Canadian Aviation Magazine Anniversary 1978
1958	9	27	Arrow	Secretary of the USAF, James H. Douglas, reports new long range Soviet bombers and the US embarking on long range interceptor development.	Storms of Controversy, by Palmiro Campagna - 1992
1958	9	29	Arrow	Avro Report 'Arrow 2 - Bomarc Comparison' - Arrow can range beyond Sage Control that Bomarc is dependent on....Arrow can return to base - Bomarc expended once fired....Arrow has own radar, doesn't require direction to target....	Avro Museum TL 113-1958
1958	9	29	Arrow	Department of Defense Production issues stop work order on Astra / Sparrow programs	Avro Museum TL 113-1958
1958	9	30	Arrow	RCAF Report - Sparrow Cancellation by Gen. Footit.....It has been necessary to revise the Arrow program as a result of a Cabinet decision to cancel the ASTRA/Sparrow combination and install American MA-1C/ Falcon systems /capability by Oct 1960	Avro Museum TL 113-1958
1958	9	30	Arrow	Avro issues fifth detailed quarterly technical report on the Arrow to inform the Government of development in previous three months....115 pages includes progress summaries, changes and problems in all phases of the program.....Arrow MK 1 designed to RCAF Spec AIR-7-4.....Arrow MK 2 designed to RCAF Spec WSC-1-2	Avro Museum TL 113-1958
1958	10	0	Arrow	Avro Report - Revised Arrow Program.....work to commence on engineering MA1 Type electronics system, Falcon missiles, and Genie MB-1 nuclear rockets into the Arrow and manufacture of six production type long range ferry tanks.....work to include study of modifications necessary to airframe, electrical and hydraulic systems.....	Avro Museum TL 113-1958
1958	10	1	Arrow	Zura retired as chief test pilot for Avro Canada	Avro Car - Canada's Flying Saucer by Bill Zuk
1958	10	6	Arrow	Arrow 203 flown to Mach 1.7 to test new extended tail cones	Canadian Heritage Calendar
1958	10	9	Arrow	Avro Report - Canadian Approach to All Weather Interceptor by J C Floyd VP Avro Engineering entitled "The Canadian Approach to All-Weather Interceptor Development". (editor note - this report was honored by industry as the most outstanding technical presentation of its time and again some twenty years later) - "...Canada's chosen role in military air power is one of defence.....unable to source a suitable aircraft to defend the expanse of the Canadian North, the Government has chosen to build their own...."	Avro Museum TL 113-1958

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	10	21	Arrow	Avro Vice President Fred Smye in letter to Defense Minister Pearkes, offers to deliver 100 operational Arrows under fixed price contract of \$3,750,000 per aircraft. Pearkes sent the letter to the Chiefs of Staff, the Department of Defense Production and the Chief of Air Staff because this pricing made cancellation on the basis of cost very difficult to justify.	Storms of Controversy, by Palmiro Campagna - 1992
1958	10	23	Arrow	using Arrow wooden mockup, Avro demonstrated that an engine could be changed in 30 minutes	Canadian Heritage Calendar
1958	10	24	Arrow	Deputy Commander of NORAD, Canadian Air Marshall Roy Slemmon issued a public statement: "For as long as we can see we must have manned interceptors and missiles to meet the manned bomber threat	Fall of An Arrow by Murray Peden
1958	10	25	Arrow	Minister Pearkes in a press conference confirmed the point that the RCAF would require a manned interceptor for some years to come. In reference to the Prime Minister's September 23 statement he said: "What we decided last September was not to produce the Arrow under conditions that surrounded Arrow production at that time. Let the makers re-examine the cost and then we will know where we are going."	Fall of An Arrow by Murray Peden
1958	10	25	Arrow	Blair Fraser, Ottawa Editor begins an article in McLean's magazine: "Never, not even in June 1957, has Prime Minister Diefenbaker met the press with such well-earned glee as when he announced the discontinuance of our all-Canadian supersonic aircraft, the AVRO Arrow." The public, generally uninformed were not disposed to challenge Mr. Blair, a gifted writer who could mold opinion.	Fall of An Arrow by Murray Peden
1958	10	27	Arrow	A.V. Roe President Grawford Gordon - "...A decision to produce the Arrow with the Iroquois engine for squadron service from this point would be about 1/3 the amount most people seem to expect - \$3.5 million per aircraft. Mr. Diefenbaker's \$9 million per aircraft included the whole basic development and tooling costs which cannot be recovered whether ther Arrow program continues or not."	Aircraft Magazine
1958	10	27	Arrow	Arrow 204 flew for the first time.	Avro Arrow by The Arrowheads
1958	10	30	Arrow	Avro Report - 'Arrow 2 Defence Role of North America'..... The Pine Tree Radar Line is merely a defense of American industry and population, .....The defence system as it now stands and proposed in light of the Bomarc and/or Arrow, virtually turns Canada into a field of battle polluted with nuclear fallout. This is an untenable situation for Canada to be in in this time of war, and to be left without direct means of retaliation and/or defence!.....	Avro Museum TL 113-1958
1958	11	0	Arrow	editorial - "...by means of the improbable suggestion in the Prime Minister's statement of Sept 23 that a change in defence policy is on the best advice of military advisors, the Cabinet is attempting to make it appear that its indecision springs from doubt about the Arrow....the more likely reason is that Cabinet is simply appalled by the unit cost of the Arrow"	Aircraft Magazine
1958	11	0	Arrow	"RCAF planners, some years ago laid down a requirement (for an interceptor) ...this requirement still exists; its never been cancelled ...An overwhelming body of expert opinion in the US, UK, Canada and apparently Russia, see a continuing need for manned aircraft....it would appear that, if the Government decides next March against buying the Arrow, its decision will be based on purely economic and political reasons.	Aircraft Magazine
1958	11	0	Arrow	editorial - 'The Arrow Decision' - "...even Boeing Airplane Co. manufacturer of the Bomarc, says: "the unmanned missile does not supplant the manned aircraft. No missile is yet capable of judgement, of reasoning."	Aircraft Magazine
1958	11	11	Arrow	Avro, while having no photos of their own were able to capitalize on photos of the Arrow accident taken by three teenagers who had snuck onto the field illegally	Canadian Heritage Calendar



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	11	11	Arrow	on landing, Arrow 202 brakes lock and the landing gear is damaged when the aircraft leaves the runway	Canadian Heritage Calendar
1958	11	11	Arrow	Test pilot Spud Potocki flew Arrow 202 to Mach 1.98 - fastest flight of any Arrow - aircraft damaged upon landing when malfunctioning elevator controls forced the aircraft off the runway, damaging the landing gear.	Avro Arrow by The Arrowheads
1958	11	25	Arrow	Conservative Cabinet - Minister of Defence, in preparing his budget tells Cabinet he assumes the Arrow program will be cancelled and he should only include cancellation costs. Should the discussion go the other way, a supplementary estimate would be submitted to Parliament.	Conservative Cabinet Minutes - Government Archives
1958	11	27	Arrow	Conservative Cabinet - re statements by Air Marshall Slemon at Norad concerning the need for interceptor aircraft.....it looked as though a senior officer, who should have known that the matter was a political issue, put Government in an unfortunate position.....The Minister of Defence assure Cabinet that regulations about officers making public statements were being tightened up.	Conservative Cabinet Minutes - Government Archives
1958	11	27	Arrow	Waldek (Spud) Potoki flew Arrow 204 on its maiden flight.	Avro Car - Canada's Flying Saucer by Bill Zuk
1958	12	0	Arrow	Avro Report - 'Arrow Performance Report' ..... Gross Combat Weight 70,747 lbs....Wing Load 55 lbs /sq ft ...Power Loading 1.55 lb/lb thrust....Range High Subsonic 506 Nautical miles (NM)....High SuperSonic 358 NM....Ferry Mission 1,500 NM....Time to Mach 1.5 @ 50,000 ft from engine start - 4.8 minutes	Avro Museum TL 113-1958
1958	12	2	Arrow	Conservative Cabinet - Minister of Defense reminds Air Marshall Slemon that policy statements rested with Members of Parliament and should he again be questioned about the CF-105, he should reply that it (Arrow) was not part of the NORAD inventory.	Conservative Cabinet Minutes - Government Archives
1958	12	5	Arrow	Computerized flight simulator suggested the Arrow was unflyable - test pilot Jan Zurakowski could only survive the simulator a short time - with information gained in Zurakowski's first flights the simulator became more realistic	Canadian Heritage Calendar
1958	12	17	Arrow	First production Iroquois engine delivered to Avro Aircraft - the second would be delivered Dec 21	Canadian Heritage Calendar
1958	12	22	Arrow	Conservative Cabinet - re Slemon statements .....the Prime Minister believed that Air Marshall Slemon's remarks had played right into a tremendous Avro publicity campaign. Even if the PM thought the decision reached last September was wrong, he was now determined, because of what had happened since, to adhere firmly to it....Cabinet agreed that a decision on the Arrow had to be made before Parliament re-opened.	Conservative Cabinet Minutes - Government Archives
1958	12	22	Arrow	Consevative Cabinet told of the US refusal to buy the Arrow	Conservative Cabinet Minutes - Government Archives
1958	12	29	Arrow	RCAF agrees to accept 21st Arrow as production standard.	Storms of Controversy, by Palmiro Campagna - 1992
1958	12	30	Arrow	Avro's Jim Floyd meets with John Pallet, the MP for Peel County, who tells him Diefenbaker is only keeping the project alive to prevent massive layoffs at Malton.	Storms of Controversy, by Palmiro Campagna - 1992
1958	12	30	Arrow	US Presidential memorandum on Canada - US Production Sharing - ".....following the President's visit to Canada in July 1958, Canada took the following actions with the understanding that her defence industry depended largely upon the US channelling business into Canada: cancelled the F-105 and related systems contracts; decided to make maximum use of US developed weapons..... airbases at Cold Lake and Bagotville are/were US refueling and AWACS bases - Canadians being required to abandon these bases in times of crisis"	Randy Whitcomb / Arrow Recovery.org

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	12	31	Arrow	the Prime Minister asked whether any Member of Cabinet wished to change the decision which had been made on cancelling the Arrow.....The Minister of Defence pointed out that, if the Government decided to make an announcement (on cancelling the Arrow) before March 31, the sum of \$10 million might be saved from the next year's budget....he reported that Avro's latest cost report put the cost of each aircraft with US missile systems at \$5 million each. With respect to softening the blow to industry it was pointed out that if the Convair-Canadair bid were accepted by the US, the work would not go to Avro but to Canadair	Conservative Cabinet Minutes - Government Archives
1958	30	0	Arrow	Avro Brochure - Standard Aircraft Characteristics - Arrow 2 - "...Iroquois powered Arrow Mk 2 climb rate with after burner 44,500 ft per minute ....time to 50,000 ft altitude 5.13 minutes from engine start ....takeoff weight 62,431 lbs..."	Avro Museum TL 113-1958/03
1959	0	0	Arrow	Canadair, which is a subsidiary of General Dynamics Corp of Washington DC gets \$1,702,000 contract to build Bomarc missile wings for US missiles - none to go to the RCAF	Canadian Aviation Magazine
1959	0	0	Arrow	US - Washington report suggests USAF considering cease-production of the Bomarc missile on the grounds it may be vulnerable to electric counter measures (ECM)	Canadian Aviation Magazine
1959	0	0	Arrow	Notes on the Arrow Project Costs by Avro VP Engineering J C Floyd - "...The 180 million already spent on the Arrow program and the 120 million spent on the Iroquois program included the design, development, tooling and extensive testing for a full production run....500 Arrows and engines could have been produced from these designs and tools ....it is therefore patently ridiculous to allocate those costs on a per aircraft basis fo the small number then on contract....If the Arrow was to be cancelled at all, the best time would have been when we saw the RCAF Specification because they had asked for the moon and for an aircraft which was so far ahead of anything in existence that it was sure to be expensive...."	Avro Museum RL 853-1989
1959	1	3	Arrow	Minister of Defence reading from a report by Chief of Air Staff, reported that the US MA1/ Falcon/MB1 could be worked satisfactorily into the Arrow aircraft and would possibly provide suitable interceptor weapon capability..... A revision in the program had dropped the cost to \$7.02 million per aircraft. (this did not include cancellation charges for the Astra/Sparrow programs)....The report went on to say the US had 800 interceptors in service and sufficient funds to procure another 650.....An additional 100 interceptors from Canada would make a small contribution . Furthermore, the CF-105 could not cover all of Canada as its range was limited from 300-500 miles.....The Minister informed Cabinet that the Bomarc missile was now operational and Canada would not be faced with the need to buy US interceptors....Cabinet was reminded that Government had said (publicly) that it would not decide the Arrow's future until March 31st.	Conservative Cabinet Minutes - Government Archives
1959	1	11	Arrow	Arrow 205 flew for the first and last time piloted by 'Spud' Potocki.	Avro Arrow by The Arrowheads
1959	1	12	Arrow	Air Marshall Hugh Campbell writes lengthy summary of Arrow / Iroquois programs for Defense Minister Pearkes.	Storms of Controversy, by Palmiro Campagna - 1992
1959	1	22	Arrow	Former Liberal Minister C D Howe writes Liberal Opposition Leader Mike Pearson - "...There is no doubt in my mind that the CF-105 should be terminated - costs are completely out of hand....you will recall that when the matter was last discussed by our Defence Committee in 1957, I recommended the project be cancelled but it was decided to to continue the project for the time being, and have a complete review of it in September 1957 (following the June federal election) Subsequent expenditures were definitely an unemployment relief measure, and an expensive one"	Arrow Timeline

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	1	28	Arrow	Cabinet Meeting: The minister of Finance indicated that his budget for 1959-60 would show no provision for the Arrow saved for cancellation charges.....Cabinet discusses NATO request for strike aircraft and the possibility of such aircraft being built under licence by Avro - the matter is tabled for future discussion	Storms of Controversy, by Palmiro Campagna - 1992
1959	2	2	Arrow	Arrow 204 diverted to Trenton due to TransCanada airliner accident on Malton runway.	Avro Arrow by The Arrowheads
1959	2	3	Arrow	Arrow 204 ferried back to Malton from Trenton.	Avro Arrow by The Arrowheads
1959	2	3	Arrow	the Prime Minister suggests announcing the cancellation of the Arrow concurrent with the Finance Minister's presentation....Cabinet decides to maintain employment at Avro and announce a program at the time a final word has been given on the Arrow..... While admitting nothing was to be gained by delaying the decision, Cabinet deferred the decision until next meeting.....The PM asked Chiefs of Staff about the suitability of a British Strike aircraft being considered for manufacture by Avro under licence - the Chiefs favour American equipment	Conservative Cabinet Minutes - Government Archives
1959	2	4	Arrow	The Minister of Defence submits that the Arrow aircraft would now cost \$7.81 million and that 100 aircraft at this price could not be justified.....Any question of Arrow funding within the budget should be answered in a way which would show a decision on the Arrow would be taken before March 31.....IF the Arrow were cancelled, Canada might have to rely on the US to provide manned fighter defence - US squadrons could be stationed on Canadian airfields. He called upon the Chiefs of Staff to present the recommendation they had been requested to make. He also noted that replacing the CF-86 aircraft assigned to NATO overseas would cost \$350 million.	09
1959	2	5	Arrow	Cabinet Defense Committee (CDC), General Foulkes, Chairman of Chief of Staff indicated the Chiefs of Staff had doubts that a limited number of costly Arrows could provide a proper defense. Acting Minister of Defense Production, Howard Green, stated that by cancelling the Arrow immediately rather than March 31st, would save fifteen million. The CDC finally agreed to recommend cancellation of the Arrow despite Chief of Air Staff, Air Marshall Hugh Campbell when asked, stated 110-115 interceptors would be necessary, no matter where they came from. The Arrow termination decision was tabled to the February 10th Cabinet meetings.	Storms of Controversy, by Palmiro Campagna - 1992
1959	2	10	Arrow	The Defense Research Board, asked if it had use for the Arrow, was optimistic and outlined some projects.	Storms of Controversy, by Palmiro Campagna - 1992
1959	2	10	Arrow	The Chairman of the Chiefs of Staff tell Cabinet they had grave doubts about the nature of the threat and the cost of such a limited number of aircraft.....The Minister of Defence tells Cabinet manned interceptors would be useless against the Soviet missile threat.....The Chief of Staff stated the RCAF needed 100-115 interceptors for several years ahead. If these aircraft were not bought from the US then US squadrons would have to defend Canada - It was hoped the presence of US servicemen would be less apparent if employed in different capacities....the US defending Canada would be particularly awkward politically as Canada would be spending \$4-500 Million on aircraft to defend Europe. ....Cabinet deferred decision on the Arrow.	Conservative Cabinet Minutes - Government Archives
1959	2	14	Arrow	Conservative Cabinet faced with the PM's Sept 1958 statement that development of the Arrow would continue until March 31st 1959 could say that circumstances mentioned in that statement had changed and the Government, under the present circumstances would be justified in now terminating the Arrow program.....they agreed the final decision to cancel the Arrow should be taken at their meeting of Feb 17, 1959 and announced forthwith - the company being advised at the same time as Parliament.	Storms of Controversy, by Palmiro Campagna - 1992

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	2	14	Arrow	Conservative Cabinet - when a decision is announced on the cancellation of the Arrow, it would be desirable to say as much as possible about production sharing with the US....No Cabinet Minister present was opposed to cancelling the Arrow.....The Government inresponse to challenges with the stated March 31 review of the Arrow would say circumstances had changed.....Canadian interceptors defendng Europe while US interceptors defended Canada would create quite a political issue.....A statement should be made in the House of Commons at the same time the company is notified.....Cabinet agreed the decision on the Arrow would be made in a Cabinet meeting on February 17, 1959.	Conservative Cabinet Minutes - Government Archives
1959	2	14	Arrow	Conservative Cabinet - "...The Prime Minister said a draft announcement on the termination of the Arrow had been prepared...the sooner the announcement could be made the better because the decision to terminate was bound to leak....the most appropriate time appeared to be the following Friday ....the possibility of a motion to immediately adjorn the House to discuss a matter of urgent public importance should not be overlooked....."	Conservative Cabinet Minutes - Government Archives
1959	2	17	Arrow	Conservative Cabinet - Prime Minister Diefenbaker reports that he has drafted an announcement concerning the tremination of the Arrow but it is not in the right form to be made that day....Most appropriate time would be the next Friday....the nouncement should not reflect only on the Arrow cancellation but production sharing with the US and aquisition of US nuclear weapons.....the Minister Without Portfolie reported that the Premier of Ontario had warned in the strongest terms about terminating the Arrow contract .....Minister of Finance reported similar conversation with Avro's John Frost about work on the Arrow being stopped. He told Mr. Frost that it had never been said that production would proceed.....	Conservative Cabinet Minutes - Government Archives
1959	2	18	Arrow	Avro John Plant tells Deputy Minister David Golden - "That in the event we received the summary telegram sayng 'Cease all Work' we would have no choice but to lay everybody off"	Arrow Timeline
1959	2	19	Arrow	D.E. (Red) Darrah flew in Arrow 203 with Spud Potoki to fine tune the fly-by-wire system.	Avro Arrow by The Arrowheads
1959	2	19	Arrow	Flight Observer D.E. (Red) Darrah, the only passenger to fly in an Arrow, went up in Arrow 203 flown by Spud Potoki	The Dream Lives On by Bill Zuk / Januz Zurakowski
1959	2	19	Arrow	The last flight of an Arrow - R.L. 201	The Avro Arrow Story by Bill Zuk
1959	2	19	Arrow	Conservative Cabinet - The Prime Minister will announce the termination the next day (Friday) - it would be well to make the statement before the CBC ran its program on development of the Arrow on Sunday.... Cabinet approved Ministers Fleming, Pearkes, Fulton, Smith and O'Hurley reviewing the draft announcement that afternoon.	Conservative Cabinet Minutes - Government Archives
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mach 4 proposal by Avro was for an aircraft of Mach 4 to 5 and altitude of 100,000 feet.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	W. Jacobs, President of the Draftsmen Association of Ontario said in a telegram to Member of Parliament Hazen Argue: "Request you use every method available to condemn government for callous treatment of engineering and skilled tradesmen and betrayal to American interests	Fall of An Arrow by Murray Peden
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Zero length launch Arrow was to get airborne with flying speed with no ground run.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: ..... "The Arrow Mark 1 that flew in 1958-1959 was only the first of a fine family of aircraft to fly. With normal development, it would have been an interesting family!" - James C Floyd	Avro Arrow by The Arrowheads

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	2	20	Arrow	The Chiefs of Staff Committee were disturbed by Diefenbaker using military rather than economic arguments for cancelling the Arrow as the committee believed there was still a bomber threat. Unlike the United States, where weapons procurement is done on a basis of strategic considerations, in Canada it was (and is) usually done on the basis of economic consideration (local employment).	Flying Blind: The Politics of the CF-105 Avro Arrow Program by R. Isinger - Aviation Review Dec 1966
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mach 3 - Ultimate Arrow was being considered by Avro for Mach 3 speed with a range of 1,000 plus miles and a ceiling of 60,000 feet.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	97 per cent of parts were on hand for the first 37 Arrows at the time of cancellation.	The Avro Arrow Story by Bill Zuk in Air force Magazine Winter 96/97
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Reconnance Arrow was a concept involving turbojet and ramjet power for Mach 2.5 at 90,000 feet.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	While Diefenbaker alone cannot be help responsible for the cancellation, he can and should be indicted for the vicious and sadistic way in which he carried out the execution - James C Floyd	The Avro Story by James C. Floyd in Canadian Aviation Magazine Anniversary 1978
1959	2	20	Arrow	Flypast Magazine - Regarding the cancellation: ..... ".....RCAF leadership of the day (1958/1959) cannot be entirely absolved in the disaster which befell the Canadian aerospace industry with cancellation of the Arrow...." - Joh Gellener	Flypast by John Gellener in Canadian Aviation Magazine Anniversary 1978
1959	2	20	Arrow	"The ironic part of this fiasco was that the RCAF, which had laid down such an uncompromising requirement for the most advanced and sophisticated aircraft ever,....James C Floyd	The Avro Story by James C. Floyd in Canadian Aviation Magazine Anniversary 1978
1959	2	20	Arrow	Blame for the cancellation of the Arrow has, almost without exception, been laid squarely on Diefenbaker	The Avro Story by James C. Floyd in Canadian Aviation Magazine Anniversary 1978
1959	2	20	Arrow	At the time of cancellation the test Arrows had accumulated 70 hours, 30 minutes of flight testing.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Avro and the government's opposition lobbied to have the sixth, Iroquois-powered Arrow fly and demonstrate its capabilities (set world records for Canada) - the government, afraid of being embarrassed, refused.	Canada's Forgotten Arrow by Tony Keene in Air Classics January 1989
1959	2	20	Arrow	A half-hearted attempt was made to transfer them (the Arrows) to the Royal Aeronautical Establishment in England for research - but no one seems to have thought for a moment of giving them to RCAF, which is where they were originally supposed to go.	Canada's Forgotten Arrow by Tony Keene in Air Classics January 1989
1959	2	20	Arrow	Notes on status / events surrounding the cancellation: .....Contrary to the Government position that the Arrow would be too expensive to put into production - every Arrow already built had come from Avro's production line.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	In most renderings of history, Diefenbaker is the sole villain - (in fact the decision to terminate the Arrow was made by Cabinet - it was never discussed by the Conservative Caucus or debated in Parliament)	Flying Blind: The Politics of the CF-105 Avro Arrow Program by R. Isinger - Aviation Review Dec 1966
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Avro suggested that three Mark 1 Arrows be sold to the United Kingdom for a nominal price, as they were to be destroyed anyway - the Canadian government refused.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 2, number 209, was 57 per cent complete.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 2, number 210, was 46 per cent complete.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Component assemblies for aircraft up to #212 was 8 per cent complete.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Major components were in work up for aircraft up to #216.	Avro Arrow by The Arrowheads

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Minor sub components were in work up for aircraft up to #221.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Thirty-seven (37) Arrow production aircraft were cancelled and ultimately destroyed.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Diefenbaker's termination of the Arrow comes six weeks before the March 31 deadline intimated earlier (effectively preventing Avro from attempting world records and proving the capability of the Mk2 RL 206)	Fall of An Arrow by Murray Peden
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....General Electric was prepared to pay a substantial price for Arrow Mark 1 test aircraft - the Canadian government refused.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	P. Podger, Business Representative of the International Association of Machinists said in a telegram to Member of Parliament Hazen Argue: "The unprecedented callous action of the Diefenbaker government in cancelling the Arrow with the immediate resultant loss of 13,500 plus jobs is tantamount to economic treachery	Fall of An Arrow by Murray Peden
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 2A design was underway as a result of an unofficial request by the RCAF for aircraft with 650 nautical mile subsonic radius.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Five Arrow Mark 1 production aircraft had been test flown.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 2, number 206, was 98 per cent complete and scheduled for completion in March 1959	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Prime Minister Diefenbaker announced to Parliament the cancellation of the Arrow program. (This date has become known to Canadians as "Black Friday".) Avro responded by laying off 14,300 workers. It is said an additional 35,000 workers at subcontractors also lost their jobs.	The Legend of the Arrow by George Shaw - June 1994
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 3A design was a Mark 3 with better radar, having a longer acquisition range. Avro waited for the RCAF to establish the requirement.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 2, number 208, was 80 per cent complete and scheduled for completion in April 1959.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Anti-ICBM Arrow was an Avro concept for an Arrow to carry an anti-missile missile to intercept enemy InterContinental Ballistic Missiles.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 3 design was underway by Avro to increase speed of Mark 2A to Mach 2.5 in anticipation of an RCAF request.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Intermediate Bomber Arrow - Avro submitted a proposal to the Royal Air Force (RAF) for using the Arrow to launch 700 pound bombs with nuclear warheads.	Avro Arrow by The Arrowheads
1959	2	20	Arrow	Notes on status / events surround the cancellation: .....Arrow Mark 2, number 207, was 85 per cent complete and scheduled for completion in March 1959.	Avro Arrow by The Arrowheads
1959	2	21	Arrow	escalating cost of the failed Astra fire control and Sparrow II missiles demanded by the RCAF was one reason given in the decision to cancel the Arrow	Canadian Heritage Calendar



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	2	23	Arrow	Conservative Cabinet agrees to let opposition adjourn the House so the government might have first say in the debate...a definite advantage ....Cabinet believes that Avro's immediate layoff of workers was unfair and misleading - the company should have been aware the contract might be cancelled - there is no need to be delicate with the company ....Cabinet determines emphasis should be placed on the fact Avro had plenty of notice and that it made no alternative plans. Minister of Transport denise Avro President Smye's assertions that the Government had repeatedly refused to discuss alternate work plans including a suggestion by Avro VP John Plant that there was an open market for civilian inter-city transport aircraft and that it would be an opportunity for Avro undertake development of a regional passenger jet (Jetliner?) for some \$15-20 million. (Cabinet agreed that it would be unwise to blame the US for the Arrow cancellation)	Conservative Cabinet Minutes - Government Archives
1959	2	23	Arrow	50th anniversary of powered flight in Canada - celebrations pointedly left out references to the Avro Arrow or the commemorative stamp issued by the post office.	The Avro Arrow Story by Bill Zuk
1959	2	23	Arrow	Government unemployment official entered the plant to conduct interviews - "I saw groups of men standing together crying like children." - George Keenan, Avro Plant Superintendent. Note: There were several suicides amongst laid-off workers.	Canada's Forgotten Arrow by Tony Keene in Air Classics January 1989
1959	2	23	Arrow	Minister of Defense Pearkes in the legislature: "	The Dream Lives On by Bill Zuk / Januz Zurakowski
1959	2	23	Arrow	Mr. Diefenbaker: ..... "I realize that defense production is an important weapon in the battle against unemployment. However, I say with all seriousness that I can put at my command, that the production of obsolete weapons as a make-work program is an unjustifiable expenditure of public funds."	Fall of An Arrow by Murray Peden
1959	2	23	Arrow	Prime Minister Diefenbaker: "Why was it stopped? Well, sir, it was stopped for the reason that the Chiefs of Staff, who advise in their wisdom and on the basis of the best information they can secure, determined it did not make sense to expand the amount in question on behalf of this phase of defense, having regard to the development of missiles and the like in the last few years." Note: Prime Minister Diefenbaker never conceded to the legislature that Chief of Staff Air Marshall Hugh Campbell strenuously opposed the cancellation of the Arrow and recommendations of the Chiefs of Staff Committee were put forward by chairman General Foulkes as being that of the committee. Minister of Defense Pearkes later recalled that Campbell was heart-broken over the decision to cancel the Arrow.	Fall of An Arrow by Murray Peden
1959	2	23	Arrow	Minister of Defense Pearkes repeatedly says cost and budget concerns were the prime factors in the cancellation.	Fall of An Arrow by Murray Peden
1959	2	25	Arrow	The Liberal challenge of the decision to cancel the Arrow / Iroquois was hampered by decisions previously made by the Liberals regarding continuing the program and the cancellation of the \$24 million Velvet Glove missile program. As debate continued, the government refused the request by the Liberal opposition (and Avro) to let the Iroquois powered Mark 2 Arrow fly and prove itself. When a secretive government attempt to transfer the Arrows to the Royal Aeronautical Establishment in England failed, the aircraft were ordered destroyed.	Fall of An Arrow by Murray Peden
1959	2	25	Arrow	Honorable Paul Hellyer initiates legislative debate of the Conservative's cancellation of the Arrow program. Reading from the Globe and Mail: "And here is the irony of it. Most Canadians will recall that in the early post-war years we were not permitted to share defense production with the United States; the reason the United States gave being that we lacked the necessary know-how. So at great trouble and cost, we acquired the know-how. Still, there was no sharing. Now these highly-trained men and women - the one national asset - will probably go. Where? To the United States."	Fall of An Arrow by Murray Peden

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	2	25	Arrow	Prime Minister and Defense Minister, in debate, suggest the Arrow had limited range, confusing radius of action with range (506 versus 1000+ miles. (Note: The original specification called for 200 miles)	Fall of An Arrow by Murray Peden
1959	3	2	Arrow	Aviation Week article: ..... "Intelligence Schism" Educates average Canadians to the fact that the Americans remain concerned with growing Soviet bomber threat.	Storms of Controversy, by Palmiro Campagna - 1992
1959	3	2	Arrow	Aviation Week article relates as to how Canadian government refuses to release Arrow data for security reasons. Meanwhile a Soviet KGB agent is working in Toronto, spying on the Arrow and stealing plans for the fuselage and engine.	Storms of Controversy, by Palmiro Campagna - 1992
1959	3	3	Arrow	Diefenbaker in legislature, defending the Arrow cancellation with his theory of a diminishing Russian bomber threat: ..... "There is no purpose in manufacturing horse collars when horses no longer exist."	Fall of An Arrow by Murray Peden
1959	3	4	Arrow	After cancellation of the Arrow program, Orenda's US B-47 aircraft was flown back to Tuscon Arizona and cut up as scrap	Canadian Heritage Calendar
1959	3	4	Arrow	RCAF establish a Termination Group under Group Captain A.H. Lief.	Storms of Controversy, by Palmiro Campagna - 1992
1959	3	4	Arrow	Minister of Defense Production, Raymond O'Hurley set up Arrow termination team.	The Legend of the Arrow by George Shaw - June 1994
1959	3	4	Arrow	Minister of Defense, George Pearkes, concurred with recommendation to scrap the Arrows	The Legend of the Arrow by George Shaw - June 1994
1959	3	11	Arrow	DRB suggests RCAF have indicated that five Arrow aircraft and fourteen engines could be available for research.	Storms of Controversy, by Palmiro Campagna - 1992
1959	3	13	Arrow	Air Marshall Campbell advises Defense Minister Pearkes of the Defence Research Board (DRB) reply: "...it can be said that there is no use in the RCAF or National Aeronautical Establishment (NAE) for these aircraft ... the RCAF intends with you approval to ... make the necessary arrangements to dispose of the Arrow airframes and Iroquois engines.	Storms of Controversy, by Palmiro Campagna - 1992
1959	3	16	Arrow	300 AVRO engineers were re-hired, but union seniority "bumping" saw engineers who had worked years on the Canuck and Arrow programs trying to learn where they fit in on the VTOL project.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	3	19	Arrow	Telegram from J.L. Bush of the Department of Defense Production in Ottawa to C.A. Hore of the same department in Malton. Hore is advised that since the RCAF had no further use for the Arrow wooden mockup, it was to be destroyed and the metal mockup to be sent to Crown Asset Disposal.	Storms of Controversy, by Palmiro Campagna - 1992
1959	3	19	Arrow	Defense Minister Pearkes concurs with Air Marshall Campbell saying he wished to be informed "of the proposed method of disposal of the airframes and engines" before action is taken.	Storms of Controversy, by Palmiro Campagna - 1992
1959	3	22	Arrow	Following the Arro cancellation, General Electric (parent of Canadair) offered to buy all aircraft and spares but were turned down by the Government	Canadian Heritage Calendar
1959	3	59	Arrow	PM Diefenbaker telivised comments suggest he isconvinced that Avro's sudden layoff of workers was done to embarrass the Government. - ... "the sudden, immediate and precipate and unfair action of the Avro Company indissmissing everybody on the day the decision was announced I didn't expect" (he was apparently not told of Avro's J L Plant's Feb 18 warning about laying everyone off)	Consevative Cabinet Minutes - Government Archives
1959	4	0	Arrow	Avro Report - 'Theory vs Flight Test Performance ' - "...the max speed that can be achieved At 50,000 ft under standard conditions appears to be Mach 1.918 compared to estimated speed from Performance Report No 11 of Mach 1.646	Avro Museum TL 113-1959/04

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	4	2	Arrow	Government Memo by Air Marshall Hugh Campbell to Defence Minister Pearkes - "...courses of action to be taken in respect of disposal of material arising out of the cancellation of the Arrow.....a)declaring material surplus to be sold by Crown Assets Agency in its original state - this course not recommended. This course could lead to subsequent embarrassment should an airframe and engine be place on public view or even in fact used as a roadside stand. This, I am sure you find most undesirable.....b) recommend relinquishing airframes and engines to Dept of Defence Production to be reduced to scrap...."	Avro Museum RL 853-1959/03
1959	4	2	Arrow	Avro Letter by J C Floyd Avro VP Engineering to UK Air Marshall Sir Thomas G Pike and Sir George Gardiner of UK Royal Aircraft Establishment - "...it occurred to me that they (five flying Arrows) might be useful in the Mach 2 supersonic transport research going on in the UK....it would be a pity to have these aircraft, which have behaved themselves so well, just ground up into dust....time is extremely short, since our Dept of Defence Production are now formulating their policy for disposition of these aircraft...."	Avro Museum RL 853-1959/04
1959	4	3	Arrow	At a luncheon meeting in Washington with their American counterparts, Defense Minister Pearkes and associates argue that the day of manned interceptors are over. The Americans saying interceptors were a requirement. After the disposal, General Foulkes would write memoranda explaining that interceptors were now a definite requirement and should be procured.	Storms of Controversy, by Palmiro Campagna - 1992
1959	4	7	Arrow	UK Letter by Sir Thomas Pike Air Chief Marshall UK to J C Floyd Avro VP Engineering - "...I was very upset to read about the events in connection with the termination of the Arrow....the situation seems to have been far from well handled and , as an outside observer, I cannot refrain from the comment that there are always two sides to every story and it seems to me that the top Avro management must share in the responsibility...."	Avro Museum RL 853-1959/04
1959	4	7	Arrow	Department of Defense Production Bush advises Malton representative Hore that he expects RCAF to turn over flying Arrows for mutilation but two are to be preserved as they might be required by the Department of National Defense. All else is to be rendered incapable of being assembled in the form of an aircraft. One set of drawings and reports to be retained.	Storms of Controversy, by Palmiro Campagna - 1992
1959	4	7	Arrow	Government Letter by G A Bore Aircraft Branch Dept of Defence Production - "...It is expected that the completed Arrows will be returned to Dept Defence Production (DDP) for mutilation .....However, there is still a remote possibility that one or two aircraft may be required by Dept of National Defence (DND), and therefore the two best aircraft should be retained intact for the present....you are authorized to mutilate all recognizable components and aircraft to the extent that they cannot be assembled as aircraft...."	Avro Museum RL 853-1959/04
1959	4	7	Arrow	Top secret message from Air Vice Marshall Hendrick to General Foulkes: "...the USAF would like to have interceptors in Canada in place of those cancelled..." US General Twining reiterated: "...the manned bomber would remain the threat for a number of years."	Storms of Controversy, by Palmiro Campagna - 1992
1959	4	8	Arrow	Government Memo by Defence Minister Pearkes to Air Marshall Campbell - "...my understanding that the aircraft (Arrows) will be reduced to scrap ....on the above understanding I agree to your proposal ..."	Avro Museum RL 853-1959/04
1959	4	14	Arrow	Group Captain Lieff, head of Arrow Disposal advises Defense Production Bush that the RCAF had no requirement for any airframes or engines, that all should now be scrapped and that the RCAF specified did not wish to have the aircraft disposed of in it's whole state.	Storms of Controversy, by Palmiro Campagna - 1992
1959	4	15	Arrow	Defense Minister Pearkes awards Jan Zurakowski the McKee Trophy for outstanding aerospace achievement, declaring the success of the initial Arrow flights were largely due to Zurakowski's skill	

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	4	18	Arrow	On the day the destruction of the Arrows began, Defense Minister Pearkes was asked if it were true - he answered "No". The next day, following release of photographs to the contrary, he rose to correct himself. The truth was crews were going through the plant gathering plans, drawings, photographs, negatives and films to be destroyed.	The Dream Lives On by Bill Zuk / Januz Zurakowski
1959	4	18	Arrow	The Canadian Government ordered all planes, plans and equipment destroyed.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	4	20	Arrow	G.W. Hunter, Assistant Deputy Minister advises Raymond O'Hurly of the Dept. of Defense Production, that disposal action was being taken but that four aircraft were being retained pending decisions by foreign governments. Fifth Arrow RL25202 was in fact being dismantled	Storms of Controversy, by Palmiro Campagna - 1992
1959	4	22	Arrow	Assistant Minister of Defense Production Hunter reports all five aircraft being held intact - "No decision has been made to reduce these aircraft to scrap."	Storms of Controversy, by Palmiro Campagna - 1992
1959	4	22	Arrow	Canadian Minister of Defense Production, Honorable Raymond O'Hurley corrects his denial that the Arrows were being destroyed.	Fall of An Arrow by Murray Peden
1959	4	25	Arrow	Zurakowski is passed on the highway by a trailer load of scrap that bears the numbers 201. A Hamilton scrap yard had purchased all of the Arrow aircraft and plant jigs for \$300,000	The Dream Lives On by Bill Zuk / Januz Zurakowski
1959	4	27	Arrow	Frank Miller, Deputy Minister of National Defense in letter to D.A. Golden, Deputy Minister of Defense Production seeking confirmation that: "There is no intention of allowing the completed aircraft to be flown, maintained in service, or left in the whole state." .....& "The aircraft, as a whole, or airframe, or engine will not be put up for disposal as such but will be reduced to scrap..."	Storms of Controversy, by Palmiro Campagna - 1992
1959	4	30	Arrow	An open letter to politicians, media and industry by ex-employees, Kay & George Shaw - "...we have collected some information for you on subject (Arrow cancellation) which has been much discussed across Canada recently.....there has been a great effort made to suppress fact and expert opinion or submerge them in a mass of uniformed or deliberately misleading statements....we do believe that the facts which we have included in this letter and the opinions of many people who this subject well , along with some conclusions, may help you to a better understanding of what is involved..."	Avro Museum RL 853-1959
1959	5	4	Arrow	Conservative Cabinet considers acknowledging press reports that Avro might build Republic F105D ThunderChief aircraft to be politically dangerous.	Conservative Cabinet Minutes - Government Archives
1959	5	8	Arrow	A Canadian writes the government asking that an airframe be preserved for posterity. Defense Minister replies that the Arrow could not be preserved for economic reasons - several hundred thousand dollars could be recouped by sale of the scrap.	Storms of Controversy, by Palmiro Campagna - 1992
1959	5	12	Arrow	Government Letter by Deputy Minister Defence Production D H Golden to Deputy Defence Minister F R Miller - "...confirm that the airframes and engines will not be disposed of in a usable condition....."	Avro Museum RL 853-1959/05
1959	5	13	Arrow	A concerned Canadian writes the government asking that an airframe be preserved. Defense Minister Pearkes replies that the Arrow would be inadequate for the defense of Canada by the time it would come into service.	Storms of Controversy, by Palmiro Campagna - 1992
1959	5	14	Arrow	Cabinet meets in an attempt to stall any NORAD decision - its an attempt to avoid having to go before the public with an about face (on cancelling the Arrow).....the F101 aircraft purchase being considered is buried in an proposed exchange of aircraft with U.S. to occur in 1961	Storms of Controversy, by Palmiro Campagna - 1992

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	5	15	Arrow	National Defense Production J.L. Bush in telegram to Defense Production Hore in Malton: "It has been confirmed that there is no requirement for any Arrow aircraft or Iroquois engines. It is therefore in order to proceed with reduction of the MK1 airframes and Iroquois to scrap as previously discussed."	Storms of Controversy, by Palmiro Campagna - 1992
1959	7	7	Arrow	Defense Production reports three of the five aircraft totally dismantled. The fourth and fifth to be finished by July 10th and 17th. The remainder if the plant had been taken apart. Iroquois engines were being retained pending possible interest by U.S. General Electric and U.K.'s Bristol-Siddeley.	Storms of Controversy, by Palmiro Campagna - 1992
1959	7	7	Arrow	Government Letter by J L Bush Chief No 1 Aircraft Division to Deputy Defence Minister F R Miller - "...all completed Arrow aircraft are to be disposed of as scrap...."	Avro Museum RL 853-1959/07
1959	7	7	Arrow	Conservative Cabinet authorized photos be taken of the surplus Arrow aircraft now that classified equipment had been removed	Conservative Cabinet Minutes - Government Archives
1960	1	0	Arrow	US Air Force de-activates 116 F-104 aircraft worth \$174 million suggesting the planes were only used until all-weather interceptors were available - meanwhile, Canada has yet to finalize a contract to build F-104's	Canadian Aviation Magazine
1960	1	21	Arrow	Government Letter by C Allen Hore Senior Representative Aircraft Branch to J C Wilson Arrow Termination Coordinator - "...The RCAF have advised that there is no purpose in retaining the engineering data on the Arrow, you are instructed to dispose of it in the same manner as other records, drawings etc....."	Avro Museum RL 853-1960/01
1960	2	4	Arrow	Conservative Cabinet - The Defence Minister had learned that the Soviets had a jet bomber force of 1100 aircraft - the Chiefs of Staff had confirmed the need for a the operation of interceptor aircraft in Canadian airspace and that the bomber threat would exist until 1965 (NORAD suggested 1970).....acquiring US aircraft would be most embarrassing in light of all the statements made about the Arrow .....the Prime Minister said he did not see how he could swallow what he had said following the cancellation of the Arrow, He and the Minister were responsible . If other aircraft should be acquired to protect national security, perhaps it would be possible to do it if some changes in personnel (Ministers?) were made."	Conservative Cabinet Minutes - Government Archives
1960	2	4	Arrow	Commander-in-Chief of NORAD, General Kuter, told Diefenbaker's Canadian Cabinet it needed a supersonic fighter to defend Canada. Canadian Chiefs-of-Staff recommended buying 66 used American F-101 Voodoo fighter aircraft being offered by the US for \$180 million, payments being made over a period of years or perhaps Canada manning US radar stations in Canada. Cabinet recognizes that trying to justify purchasing this aircraft (F-101) as being a replacement for the Arrow would be impossible	The Legend of the Arrow by George Shaw - June 1994
1960	2	6	Arrow	Defense Minister Pearkes reports that the expected range of the Bomarc 'B' missile was between 400-500 miles - that of a Bomarc 'A' 150-200 miles.....The Minister read aloud a letter concerning the PineTree Radar Stations....in no way implied that Canada was to be regarded as a recipient of aid. Perhaps a cost sharing arrangement for the F101's could be regarded in a similar light.....The Prime Minister said that if the Committee demanded acquisition of the F101 aircraft , it place him and the Defense Minister Pearkes in impossible position. The Committee should first examine carefully what had been said publicly by himself and other Ministers about cancelling the Arrow and, in the light of that, consider what was possible .....The Prime Minister said he had been against cancelling the Arrow but had been persuaded otherwise.....during discussion it was said that even with a logical, reasoned case for obtaining the F101B's the decision could not be explained to the pulic.	Conservative Cabinet Minutes - Government Archives
1960	2	6	Arrow	PM Diefenbaker told that NORAD wants Canada to replace its CF-100's with American F101B's. Believing the Canadian public had been convinced of the wisdom of the governments decision to cancel the Arrow, he is aware that it proves embarrassing to now buy an aircraft.	Storms of Controversy, by Palmiro Campagna - 1992

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1960	3	8	Arrow	Diefenbaker's Canadian Cabinet decided not to pursue purchase of Voodoos to avoid the political embarrassment of buying aircraft so soon after declaring the Arrow and manned aircraft obsolete.	The Legend of the Arrow by George Shaw - June 1994
1960	5	0	Arrow	PM Diefenbaker agrees the Government did little to discourage belief Bomarc represented a replacement for manned aircraft but there were several official Government statements emphasizing the need for both (Hansard Feb 20/1959)	Canadian Aviation Magazine
1960	5	27	Arrow	US Memo by US Deputy Secretary of Defence - Memorandum on Production Sharing - US & Canada - "...Prior to a visit to Canada in July 1958, Canada took the following actions with the understanding that her defence industry depended largely on the US channelling defence business into Canada: cancelled the CF-105 and related system contracts; decided to make maximum use of US developed weapons, integrated into NORAD; worked with the US toward a fully integrated continental air defence .....the US in turn established a production/ development sharing program with Canada with its first quarterly meeting in Oct 1958...."	Avro Museum RL 853-1960/05
1960	6	1	Arrow	United States Secretary of Defense: "	The Legend of the Arrow by George Shaw - June 1994
1960	7	0	Arrow	Conservative Cabinet - "...Mr Green stated that they were told two years ago that the manned bomber was on the way out and that is why we cancelled the Arrow. Now they have to go back and say they are both still needed....Defence Minister Pearkes said we did not cancel the CF-105 because there was no bomber threat but because there was a lesser bomber threat and we got the Bomarc in lieu of more airplanes to look after this. Now he said the expectation of two years ago that the bomber threat was lessening has not been fulfilled..."	Conservative Cabinet Minutes - Government Archives
1960	7	4	Arrow	With the Cold War escalating, a deal was struck to exchange 37 Canadair CL44 Freighters for the 66 American Voodoos.	The Legend of the Arrow by George Shaw - June 1994
1961	0	0	Arrow	Offering Canadian radar service personnel to man what is essentially US radar stations allows the RCAF to take possession of 66 used US McDonnell F-101B Voodoo aircraft designed for carrying nuclear weapons that Canada didn't have....	
1961	2	0	Arrow	First Bomarc B to commence testing full two years after Canada cancelled the Arrow	Canadian Aviation Magazine
1961	2	0	Arrow	Air Power Magazine - Ernie Hemphill - "...the Canadian Air Force has never viewed Bomarc in other than the family of weapons concept.....without losing sight of the essential requirement of manned interceptors..."	Air Power Magazine
1961	6	12	Arrow	Canadian Prime Minister Diefenbaker finally announces the CL44 - Voodoo exchange. (There is no record of CL44's going to the United States - to cover the straight purchase of manned aircraft, Canada agreed to man 16 Pine Tree Radar Stations instead.	The Legend of the Arrow by George Shaw - June 1994
1961	12	0	Arrow	first Canadian Bomarc B missile unloaded at North Bay defence site	Canadian Aviation Magazine
1962	3	0	Arrow	The RCAF took over the North Bay Bomarc base with its 28 launching pads Feb 1.....but the Government has not announced a decision on using nuclear warheads and no conventional warheads exist for the Bomarc....asked what the function of the base and Bomarc would be, Defence Minister Peakes replied that he was tired of 'childish questions'.....	Aviation Magazine
1962	3	0	Arrow	The Arrow cancellation marked a turning point for Canadian Aircraft Industry .....research and development spending was said to be cut about ankle level.....	Aviation Magazine
1962	3	0	Arrow	Latest Government accounting shows that the Government paid out \$407,638,339 on the Arrow program, including \$27,439,905 for the Sparrow missile which was to be the interceptor's main armament	Aviation Magazine



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1962	3	0	Arrow	The nation's aircraft industry is now measures as 'before Feb-1959' and after 'Feb -1959' ...the cancellation of the Arrow was clear notice the aircraft industry was on its own.....	Aircraft Magazine
1962	3	0	Arrow	Aircraft Magazine reports the government paid out \$407, 638,339 on the Arrow program, including \$27,439,905 for the RCAF's Sparrow Missile which was to have been the interceptors main armament ( Sparrow was dropped in favour of the original Hughes Falcon system because of cost)	Aircraft Magazine
1962	10	0	Arrow	Lucas-Rotax of Toronto, employing 1000 during the Arrow program now employees only 270 who will be laid off progressively as the until the final shutdown in 1963	Aircraft Magazine
1962	10	0	Arrow	The La Macaza Bomarc Missile Site is turned over to the RCAF	Wings & Space Magazine
1962	10	11	Arrow	delivery of 200 Canadair built CF-104 aircraft began delivery to the RCAF	Wings & Space Magazine
1963	1	0	Arrow	Former Deputy Minister of Defence D Golden states - 'Canada is suspended in mid-air with weapons (Bomarc/ F101/F104) that are not effective without nuclear warheads'....Us General Lewis Norstad pronounced that 'Canada would be going back on its NATO commitments if it failed to accept nuclear warheads'.....	Aviation Magazine
1963	7	0	Arrow	Government cancels production of 60 F-104's because their short range makes them unsuitable for domestic Canadian air defence	Aviation Magazine
1963	12	0	Arrow	Canadian Peace Research Institute given a \$10,500 Government grant to study the social, economic impact of the 1959 Arrow cancellation	Aviation Magazine
1963	12	0	Arrow	Canadian General Foulkes told the House of Commons that the Liberal Party would have terminated the Arrow if returned to power in 1957 and that the Chiefs of Staff stampeded the new Conservative Government into the NORAD Agreement. The Government's indecision delayed the F-104 program by two years....	Aviation Magazine
1964	1	0	Arrow	Nuclear warheads arrive at Canadian North Bay Bomarc site - editorial - "The nuclear warheads displace sand as the principle weapon in Canada's Arsenal, until the decision to adopt nuclear weapons was reached by the Government, Missile Sand & Gravel was Canada's largest defence contractor"	Aviation Magazine
1965	12	0	Arrow	"...Highly technical minded RCAF Officers who demanded literally hundreds of modifications had their share of the blame for the eventual killing of th Avro Arrow....." John Gellner	Canadian Aviation Magazine
1967	2	0	Arrow	....question remains as to whether the \$ Billion spent on the F-104's was a wise one....recently adapted to carry conventional weapons has been likened to delivering milk house to house with a dragster....	Canadian Aviation Magazine
1976	1976	0	Arrow	"...Perhaps the most thought-provoking fact....is that while Canada as a nation could not afford \$260 million a year for the Arrow, the City of Montreal spent one billion, six hundred million dollars in 1976 to host the Olympic Games. That expenditure for sport and entertainemnt, taking into account the volume discounts quoted by Avro at the beginning of of 1959, that amount would have paid for more than 600 Arrow's....."	Fall of an Arrow
1978	4	10	Arrow	Air Industries Association President, David Mundy: "	Fall of An Arrow by Murray Peden

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1978	5	16	Arrow	Candian Aeronautics & Space Insitute - 'Flying the Arrow by RCAF Test Pilot S/L Jack Woodman - "...approximately 95% of the flight envelope had been invetigated and while te MK1 Arrow never did reach max speed of Mach 2.0, there is no reason to believe that the production aircraft with Iroquois engines would not have reached Mach 2 quite easily. The Iroquois had apparently 30% more thrust than the the P&W J75's and the airplane would have weighed 5000 lbs less. I believe the Arrow MK2 had sufficient performance capability ot set new speed and altitude records....the Arrow was performing as predicated and was meeting all quarantees....."	Avro Museum
1979	2	20	Arrow	CBC Morningside interview with The Honorable Minister George Hees reflecting on the cancellation of the Arrow: "...it would now have to intercept a bomber flying at 50,000 feet. It could not do that job and return to earth without crashing....we had a the very thankless task of scrapping... a plane proposed by the previous Liberal government...." -	Avro Canada C102 Jetliner by Jim Floyd
1983	0	0	Arrow	Arrow Test Pilot Jan Zurakowski questioned on possible Ameican influence on the Arrow cancellation - "... I don't know whether there was any influence. My own personal impression is simpl that our government had no experiance.....the Prime Minister sent his General Pearkes to sell the Arrow (to the US. So he goes to his American counterpart, and the industry, and tells them, look, we've got this new Arrow, we're not sure it's any good, we've had a little troubel with the developmen program, and everyone says its too expensive...will you buy it?.....So if that is the approach of the salesman, of course the Americans will have a good laugh and say no, we don't want to buy it, but we can sell you anything you like, ready to go.	Canadian Aviation Historical Society
1983	5	0	Arrow	"...cancellation of the Arrow was a tragedy of tunnel vision and timidity" - former Liberal Cabinet Minister Paul Hellyer	Canadian Aviation Magazine
1986	2	20	Arrow	Toronto Star: For all its sleek technological excellence, the Arrow was a peace lover's ideal weapon: it would self destruct on use.	Storms of Controversy, by Palmiro Campagna - 1992
1989	0	0	Arrow	Reflection on the Arrow Project by ex Avro VP Engineering J C Floyd - "...it was stated at that time that manned aircraft were becoming obsolete and missiles would soon take their place....It is ironic that 30 years later the RCAF has bought 3 or 4 generatiions of American aircraft since the cancellation of the Arrow, none of which came even close to the overall capability of the Arrow..."	Avro Museum RL 853-1989
1990	2	15	Arrow	two thirds scale Arrow built for the stage play 'the Legend of the Arrow'	Canadian Heritage Calendar
1990	3	24	Arrow	First meeting of Aerospace Heritage Foundation - purpose - to build a full scale museum quality replica of the Arrow	Canadian Hertiage Calendar
1991	7	31	Arrow	In an interview, Air Vice Marshall, John Easton confirmed an anti-ICBM compatibility was being considered for the Arrow and that his view, like the Americans, was for an all encompassing program of Arrow interceptor, Bomarc missile, and improved radar.	Storms of Controversy, by Palmiro Campagna - 1992
1992	1	1	Arrow	"...The Arrow was too good and a disinformation campaign, either deliberately or not, has been in effect since 1959."	Storms of Controversy, by Palmiro Campagna - 1992
1994	12	0	Arrow	Reflection on the Arrow Project by ex Avro VP Engineering J C Floyd - "...that everthing that has been written to-date has been by a 'pro-Avro faction' is strange in view of the fact that so many derogatory articles and chapters in history books have been written by self styled 'revisionist historians' ....I make no apology for the fact I am proud to have been associated with that wonderful team of fellow Canadians, who worked their hearts out to put Canada first in aviation....."	Avro Museum RL 853-1994/12
1997	1	18	Arrow	CBC telecast a 2-part mini-series "The Arrow" which loosely told the story of the Avro Arrow	1999 Calendar published by Adlin Group
1997	1	20	Arrow	"I tell my history students that the last CF-105 is stored in a barn in Saskatchewan. It's taken out and flown once a year by Elvis." - Michael Bliss, professor of History at the University of Toronto.	Arrow That Doesn't Fly by Michael Bliss in Time Magazine Jan 20, 1997

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1998	2	1	Arrow	Former Conservative Cabinet Minister Pierre Seigny claimed that the destruction of the Avro Arrow was ordered by Avro President Crawford Gordon	Storms of Controversy, by Palmiro Campagna - 1992
2004	2	9	Arrow	Arrow test pilot Janus Zurakowski passed away.	The Avro Arrow Story by Bill Zuk
2012	9	10	Arrow	Calgary Herald article reports on a proposal by a group of businessmen to rebuild the Canadian Arrow as an alternative to the American Lockheed F-35 for Canadian defence.	Calgary Herald Newspaper
2012	9	13	Arrow	Calgary Herald Editorial Cartoon - "seriously, what would Canada gain by reviving the Avro Arrow program?....national pride, self actualization and technical advances"	Calgary Herald Newspaper
1905	4	29	Aviation	Santa Clara, California: A manned glider designed by Prof. Montgomery and piloted by Daniel Maloney was released from a hot-air balloon at 4000 ft and successfully flown to the ground.	Aircraft & Airport, June 1950
1908	3	12	Aviation	F.W. "Casey" Baldwin was the first Canadian to fly a heavier-than-air aircraft at Hammondsport, New York	
1908	6	8	Aviation	A.V. Roe became first Englishman to fly his own aircraft.	Avro Canada C102 Jetliner by Jim Floyd
1908	6	28	Aviation	Alliot Verdun Roe made his first flight two feet above the ground for sixty yards - testimony of brother H.V. Roe in Journal of the Royal Aeronautical Society - April 10. The flight was never officially recognized because it was not of sufficient duration.	Avro Canada C102 Jetliner by Jim Floyd
1909	2	23	Aviation	John McCurdy become the first to fly in the British Commonwealth at Baddeck, Nova Scotia	Score Sheet on the Half Century by David Godfrey in Canadian Aviation Magazine Anniversary 1978
1909	2	23	Aviation	McCurdy flew the Silver Dart at Baddeck, Nova Scotia	Canadian Aviation Jan 1959
1909	9	7	Aviation	Charles Willard flew Glen Curtiss' first aircraft, The Golden Flyer, from Scarborough Beach Toronto	Canadian Aviation Magazine - January 1959
1912	4	12	Aviation	Reporter James Hewitt became first air passenger in Western Canada	Canadian Aviation Magazine - January 1959
1912	4	12	Aviation	Pilot Billy Stark took up his wife, making her the first lady passenger in the Dominion of Canada	Canadian Aviation Magazine - January 1959
1912	7	17	Aviation	First flight of a seaplane in Canada	Canadian Aviation Magazine - January 1959
1912	7	19	Aviation	Jimmy Ward first mile high flight in Canada at Winnipeg	Canadian Aviation Magazine - January 1959
1913	7	31	Aviation	Alys McKey Bryant became first woman pilot in Vancouver.	Canadian Aviation Magazine - January 1959
1913	8	6	Aviation	Johnny Bryant (husband of Alys Bryant) became the first and only air casualty until World War 1.	Canadian Aviation Magazine - January 1959
1917	1	1	Aviation	J.H. Parkin installed 4 meter wind tunnel at the University of Toronto.	Aircraft & Airport, March 1952
1918	6	24	Aviation	First airmail from Montreal to Toronto	Canadian Aviation Magazine - January 1959
1918	8	7	Aviation	Ernest Hoy flew a JN4 Jenny open-cockpit bi-plane from Vancouver to Calgary in the first flight across the Rocky Mountains	Canadian Aviation Magazine - January 1959
1919	6	14	Aviation	First direct trans-Atlantic flight by a Vickers Vimy biplane in 16 hours 12 minutes.	Aircraft & Airport, June 1950
1924	0	0	Aviation	first Canadian designed aircraft, the Vickers Vedette flying boat produced in Montreal	Canadian Aircraft Industries
1934	1	1	Aviation	British Air Ministry stated pompously but stupidly that scientific investigation had given no indication that jet propulsion could be a serious competitor to the propped airplane. Book: Power for the Future, A.R. Weyl	Aircraft & Airport, November 1949

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1937	7	12	Aviation	A Russian single engine airplane landed US March Air Force Base in San Jacinto, California, having flown nonstop from Moscow in 62 hours - a distance of 6,295 miles	Red Plane over Southern California by Robert E. Holmes in Flying Magazine July 1962
1939	4	28	Aviation	Russian aircraft departed Russia in attempt to fly to New York but crash landed in Miscou New Brunswick when it ran short of fuel in bad weather	Canadian Aviation Magazine
1940	5	27	Aviation	letter from Sir A.V. Roe to Roy Dobson A V. Roe Aircraft Co. UK promoting tail-less delta wing aircraft - letter ignored	Canadian Heritage Calendar
1941	5	15	Aviation	First flight in Britain of Gloster-Whittle E.28/39 - world's first successful jet propelled aircraft.	Aircraft & Airport, July 1951
1942	11	23	Aviation	First flight of Chance-Vought V-173 "Pancake" propeller driven disc-shaped aircraft.	Avro Car - Canada's Flying Saucer by Bill Zuk
1942	12	27	Aviation	First flight of the tail-less Northrop N-9M "Flying Wing"	Avro Car - Canada's Flying Saucer by Bill Zuk
1947	6	19	Aviation	US Lockheed P-80R Shooting Star sets speed record of 623 mph	Canadian Aviation Magazine
1947	7	0	Aviation	US military team sent to Roswell New Mexico to report of finding flying disc but a day later claim to have found a weather balloon.....	Calgary Sun Newspaper
1948	1	1	Aviation	American Convair XF-92A became the first delta wing aircraft in the world to fly.	Aircraft & Airport, November 1952
1948	1	22	Aviation	"Project Sign" - first official study of UFO reports.	Avro Car - Canada's Flying Saucer by Bill Zuk
1948	4	14	Aviation	De Havilland DHC-1 "Chipmunk" designated by British government as Royal Air Force trainer.	Aircraft & Airport, April 1948
1948	7	22	Aviation	First flight of British Vickers Viscount turbo prop airliner (later purchased by Canadian TCA although the engines were not certified to start below -10 deg. F)	Aircraft & Airport, September 1949
1948	9	1	Aviation	Avro of Britain first flew its Tudor 8 Jet Transport.	Aircraft & Airport, November 1948
1948	9	9	Aviation	British deHavilland DH-108 flown by John Derry broke the sound barrier at Mach 1.05	Avro Car - Canada's Flying Saucer by Bill Zuk
1948	12	1	Aviation	G.R. Edwards, chief designer of Vickers-Armstrong of Britain, in a presentation to the Royal Aeronautical Society, suggests the greater use of variants of a basically good airplane to avoid design/production costs of new designs.	Aircraft & Airport, January 1949
1949	1	0	Aviation	Canadair in final assembly of the first of 22 four engine propellor transports ordered by BOAC	Canadian Aviation Magazine
1949	1	1	Aviation	Robert Askew, expert manager for Lockheed claims U.S. Builders could now build a jet liner with a speed of 500 mph and range of 3500 miles, but will not be undertaken for seven or eight years.	Aircraft & Airport, January 1949
1949	2	23	Aviation	British Secretary of State announces jet bombers for the RAF are being developed although prototypes have not been flown.	Aircraft & Airport, March 1949
1949	3	1	Aviation	Canadian Trade Magazine "Aircraft & Airport" carries Rolls Royce ad for Vickers "Nene/Viking" - the first all jet airliner in the world to fly (a common assertion of "firsts" by manufacturers)	Aircraft & Airport, March 1949
1949	5	3	Aviation	American Martin Viking rocket reaches altitude of 51.5miles and speed of 2250 Mph.	Aircraft & Airport, July 1949
1949	12	1	Aviation	The USAF experimenting with an aerial refueling system designed to enable fighter planes to be refueled three at a time from one tanker.	Aircraft & Airport, December 1949
1949	12	1	Aviation	USAF reveals development of its first air-air missile: the Ryan "Firebird."	Aircraft & Airport, December 1949
1950	1	1	Aviation	Boeing Airplane employs about 32,000.	Aircraft & Airport, November 1950

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1950	1	1	Aviation	British Avro 707B Delta jet performs at SBAC at Farnborough Britain - Avro Canada static display attracted much attention.	Aircraft & Airport, November 1950
1950	6	0	Aviation	start of the Korean War	Avro Canada C102 Jetliner - J C Floyd
1950	7	0	Aviation	US President Truman calls for production of 5,000 US aircraft per year	Flying Magazine
1950	7	27	Aviation	First flight of second British DeHavilland Comet jet transport - British Ministry of Supply might have it adapted for flight refueling trials.	Aircraft & Airport, September 1950
1950	8	1	Aviation	DeHavilland Comet completes 250 hours of flight testing, expedited by 12 engine changes.	Aircraft & Airport, August 1950
1950	8	28	Aviation	First flight of Vicker Viscount 700 - prototype of the production turbo prop Viscount.	Aircraft & Airport, October 1950
1950	12	29	Aviation	First flight of US Convair Turboliner - first commercial turboprop transport built and flown in the western hemisphere.	Aircraft & Airport, February 1951
1951	1	1	Aviation	Launched from a B-29 mother ship at 35,000 ft, the Douglas D-558-2 Skyrocket reached 79,494 ft and a speed of 1,238 mph.	Aircraft & Airport, September 1952
1951	3	23	Aviation	American government allows British twin jet Canberra to be built under license in the United States by Martin aircraft.	Fall of An Arrow by Murray Peden
1951	4	1	Aviation	USAF contracted seven major US automobile manufacturers to build aircraft or aircraft engines.	Aircraft & Airport, April 1951
1952	2	1	Aviation	A decade ago 85% to 90% of the cost of an airplane was in the airframe, engine, and propeller - today's aircraft have such devices as automatic fire control systems, radar systems, air refueling systems, and other electronic systems which now account for 50% of the cost. A 1944 aircraft carried 1000 lbs of electronics; today's aircraft: 5000 lbs.	Aircraft & Airport, February 1952
1952	5	27	Aviation	Avro Manchester, Britain hands over the last British designed AVRO Anson to the RAF. 11,020 were built over 17 years.	Aircraft & Airport, July 1952
1952	9	24	Aviation	Canadian General Electric Co. opens overhaul facility at Downsview Airport.	Aircraft & Airport, November 1952
1952	10	26	Aviation	BOAC Comet crashes just following take off at Rome, Italy no fault found with the aircraft.	Aircraft & Airport, December 1952
1952	11	1	Aviation	Guided missiles, remote control test models and ramjet propulsion models make appearance at Farnborough Air Show in Britain.	Aircraft & Airport, November 1952
1952	11	1	Aviation	AVRO Britain's AVRO 698 bomber is publicly demonstrated at Farnborough Air Show by a single pilot although only test flown two days prior.	Aircraft & Airport, November 1952
1952	12	1	Aviation	Pan American Airways becomes first American airline to buy commercial jet transports with an order for three Comet 3's.	Aircraft & Airport, December 1952
1952	12	1	Aviation	Canadian Pacific Airlines having taken delivery of its first Comet airline, starts the first of two ground courses for pilots.	Aircraft & Airport, December 1952
1952	12	1	Aviation	The Delta Wing - James-Hay Stevens - Many people feel that these airplanes (delta wing) are forerunners of what is to come: others think that it is a blind alley development sponsored by a few cranks... Speculation about delta possibilities for high-speed airliners is interesting. It seems ideal to attain the performance, but how to arrange the passengers is a very tricky question.	Aircraft & Airport, December 1952
1952	12	9	Aviation	Republic Aviation Corp. XF-91 claims first supersonic rocket powered flight of a combat-type fighter.	Aircraft & Airport, January 1953
1953	1	1	Aviation	Vickers-Armstrongs Ltd. of the UK announces it will tool up to build 100 Viscount turbo props a year.	
1953	2	17	Aviation	First flight of commercial propellor driven Super Constellation.	Aircraft & Airport, March 1953

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1953	3	2	Aviation	Canadian Pacific Airlines first Comet 1A crashes during takeoff at Karachi.	Aircraft & Airport, April 1953
1953	5	2	Aviation	British Comet crashes just after takeoff from Calcutta, killing crew of six and 37 passengers (note eleven killed in Karachi)	Aircraft, June 1953
1953	6	1	Aviation	Hawker Siddley Group of Britain counts amongst its aeronautical member companies: Hawker Aircraft Ltd., Gloster Aircraft Co. Ltd., Sir W.G. Armstrong, Whitworth Aircraft Ltd., A.V. Roe & Co. Ltd., A.V. Roe Canada Ltd., Armstrong Siddley Motors Ltd., and Brockworth Engineering Co. Ltd.	Aircraft, June 1953
1953	6	25	Aviation	First flight of the American F-100 - the world's first supersonic fighter.	Fall of An Arrow by Murray Peden
1953	8	1	Aviation	Avro Britain announce proposal for new Avro Atlantic delta wing airliner to carry 90-115 trans-Atlantic passengers at 600 mph @ 40,000 ft. It is a derivative of the Avro Vulcan Bomber.	Aircraft. August 1953
1953	9	1	Aviation	Lockheed presents a wooden mock up of its new C-130 transport (later to be known as the C-130 Hercules.	Aircraft, September 1953
1954	1	10	Aviation	Crash of De Havilland Comet resulted in the suspension of the aircraft's C of A.	Aircraft, May 1954
1954	4	18	Aviation	Crash of De Havilland Comet only 16 days after return of C of A (Certificate of Airworthiness).	Aircraft, May 1954
1954	5	14	Aviation	Rollout of Boeing 707 Stratoliner.	Aircraft, June 1954
1954	5	21	Aviation	Boeing 707 main gear, collapsed during taxi trials.	Aircraft, June 1954
1954	7	1	Aviation	First flight of the Boeing 707 Stratoliner.	Aircraft, September 1954
1954	7	19	Aviation	First flight of a Comet 3 aircraft.	Aircraft, September 1954
1954	8	3	Aviation	First flight of a turbine powered "flat riser" test vehicle know as the "Flying Bedstead". Note: Hawker Siddley UK developed the concept into airframes and the famous VTOL Harrier was born.	Avro Car - Canada's Flying Saucer by Bill Zuk
1954	11	2	Aviation	Convair XFY-1 "Pogo" makes first vertical takeoff flight of a propeller driven "tail-sitter" aircraft.	Avro Car - Canada's Flying Saucer by Bill Zuk
1955	5	27	Aviation	First flight of the French Caravelle jet transport with full support of French Government and Air France, the national airline.	Avro Canada C102 Jetliner by Jim Floyd
1956	3	6	Aviation	First flight of the second prototype Caravelle jet transport	Avro Canada C102 Jetliner - J C Floyd
1957	0	0	Aviation	Boeing Aircraft begins building its first 707 jet transport expecting to deliver 134 in 1958	
1957	0	0	Aviation	US Airforce recieves first of 600 KC-35 jet tanker aircraft for inflight re-fueling	
1958	5	8	Aviation	USAF F-104A fighter sets altitude record of 91,249 feet.	Aircraft Magazine - June 1958
1958	5	16	Aviation	USAF F104A fighter set world speed record of 1,404.19 miles per hour or more than twice the speed of sound.	Aircraft Magazine - June 1958
1958	5	18	Aviation	First flight of a French Caravelle production aircraft	Avro Canada C102 Jetliner - J C Floyd
1958	11	25	Aviation	Mayor of Toronto cites Zurkowski's contribution to flying	The Dream Lives On by Bill Zuk / Januz Zurkowski
1959	4	0	Aviation	First production aircraft of the French Caravelle jet transport received its certificate of airworthiness follow a year of testing and seven years of development	Avro Canada C102 Jetliner - J C Floyd
1959	5	6	Aviation	The French Caravelle jet transport entered commercial service with Air France after a year of testing on a production aircraft	Avro Canada C102 Jetliner - J C Floyd



# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1959	8	20	Aviation	US Airforce recieves final submissions for Project Oxcart (SR-71) recon aircraft	Aeroplane Magazine Jan 2002
1959	9	1	Aviation	American CIA approve development of the A-12 Blackbird, which evolved to the SR-71 ordered by the USAF in 1962.	Storms of Controversy, by Palmiro Campagna - 1992
1960	5	0	Aviation	Hawker Siddley UK takes orders for 44 passenger Avro 748 transport aircraft meant to replace aging Douglas DC-3 aircraft	Canadian Aviation Magazine
1960	5	1	Aviation	American U-2 pilot Gary Powers is shot down by a surface to air missile. Defense Minister Pearkes admits American U-2 flights over Canada but insists they are only weather flights.	Storms of Controversy, by Palmiro Campagna - 1992
1968	12	31	Aviation	First flight of the Soviet Tupolev T144 SST - capable of Mach 2.5	
1969	12	17	Aviation	U.S. Project Blue Book terminated, having investigated 12,618 reported UFO sightings.	Avro Car - Canada's Flying Saucer by Bill Zuk
1976	1	21	Aviation	First supersonic passenger service - Concorde.	
1951	9	1	Aviation History	First flight of British 707A tail-less delta aircraft.	Aircraft & Airport, September 1951
1951	12	1	Aviation History	Shortage of graduate engineers hampers aviation industry's production and development world wide.	Aircraft & Airport, December 1951
1952	2	1	Aviation History	USAF awarded contract to Pratt & Whitney for development of an atomic aircraft engine in cooperation with U.S. Atomic Energy Commission.	Aircraft & Airport, February 1952
1955	1	1	AVRO	Curtiss-Wright abandons work on it's J-67 engine after Avro made considerable design changes to accommodate it in the Arrow. The Pratt & Whitney J-75 was then chosen for the first five MK1 Arrows.	Storms of Controversy, by Palmiro Campagna - 1992
1958	6	3	AVRO	Avro Memo by J C Floyd re suggested future projects - "...five variations of the Arrow....anti-ICBM missile....ultimate manned interceptor....supersonic transport (SST)....economic cargo transport...vertical takeoff vehicles...orbiting winged vehicle....simple drag space re-entry vehicle...propulsion units-high energy fuels-nuclear power...civil monorail studies...."	Avro Museum RL 855-1958/06
1934	10	8	AvroCar	Henri Coanda applied for a patent for a procedure and device for the deviation of a fluid within a fluid. (Many important aeronautical applications including changing thrust direction	Avro Car - Canada's Flying Saucer by Bill Zuk
1952	2	7	AvroCar	A.V. Roe Canada document "Description and Thoughts on the Turbo Disc" by John Frost. (A simple gas turbine halfway between a ram-jet engine and centrifugal engine.)	Avro Car - Canada's Flying Saucer by Bill Zuk
1952	7	1	AvroCar	Code name Project Y was given to disc-shaped mock up ("flying saucer") by John Frost. It was later coded to Y-2.	Avro Car - Canada's Flying Saucer by Bill Zuk
1952	8	21	AvroCar	British patent taken on AVRO Ace design (12 meter span)	Avro Car - Canada's Flying Saucer by Bill Zuk
1952	9	29	AvroCar	Professor Mordell reports that "the present design appears aerodynamically satisfactory	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	1	1	AvroCar	Project Y put on hold pending further funding - Avro estimated that an additional 200 million dollars were required.	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	1	1	AvroCar	Lockheed Aircraft Corporation applied for a patent for a circular plan form to fly at Mach 4 and 100,000 feet.	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	2	11	AvroCar	Toronto Star headline: "Takes Off Straight Up, Report Malton Flying Saucer to do 1500 MPH"	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	2	16	AvroCar	C.D. Howe, Minister of Defense Production: "	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	4	21	AvroCar	British Field Marshall Montgomery's inspection resulted in leaked information. Avro insiders thought this was to attract money.	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	4	24	AvroCar	Toronto Star confirmed that Canada's best aeronautical engineers were working on a flying disc	Avro Car - Canada's Flying Saucer by Bill Zuk

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1953	5	1	AvroCar	Editorial - Canada's Place: Quote from British publication Aviation Report: The lurid story...of the Avro Canada project for a saucer configuration was, on the whole, an unhappy episode, coming as it did at a time when there is a certain amount of lobbying for the soft pedaling of design sponsorship.	Aircraft & Airport, May 1953
1953	8	23	AvroCar	Frost patent 376,320 "Air Cushion Effect"	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	9	16	AvroCar	U.S. Defense experts, led by USAF General D.L. Putt, visited the Avro Canada plant and were briefed on Project Y2, a "flat-rising" disc-shaped fighter design being funded by Avro, with some assistance from Canadian Defense Research Board. Version 1 based on the original pancake engine design. Version 2, a multi-engine aircraft.	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	9	17	AvroCar	New York Times: "U.S. scientists and Canadian officials confer on disc shaped jet fighter"	Avro Car - Canada's Flying Saucer by Bill Zuk
1953	10	2	AvroCar	New York Times: "A.V. Roe seeks backers for prototype of disc shaped fighter"	Avro Car - Canada's Flying Saucer by Bill Zuk
1954	1	5	AvroCar	Aero plane Magazine ran the article "AVRO Canada's Omega", although it never went beyond design stage.	Avro Car - Canada's Flying Saucer by Bill Zuk
1954	12	2	AvroCar	C.D. Howe, Minister of Trade, announced that Canadian scientists had worked on a flying saucer project that had now been shelved. Having spent 2 million dollars since 1952, the Canadian government stopped all funding as the design was purchased outright by the USAF and renamed USAF Project MX-1794	Avro Car - Canada's Flying Saucer by Bill Zuk
1955	2	15	AvroCar	Report on project "Silver Bug" (#9961): Project Y2 proposal incorporates a number of advance improvements brought about by the utilization of several radical ideas	Avro Car - Canada's Flying Saucer by Bill Zuk
1955	5	16	AvroCar	USAF awarded Avro a \$784,492.29 contract through August 1956 for "Project MX-1794", later called "1794 10.75M Span - 3000 MPH".	Avro Car - Canada's Flying Saucer by Bill Zuk
1955	8	24	AvroCar	Montreal Star: "U.S. Air force issues statement: 'The (US) Air force has a research and development contract with the Avro company of Canada to explore new aircraft concept'	Avro Car - Canada's Flying Saucer by Bill Zuk
1955	11	4	AvroCar	At first review meeting Avro proposes a concurrent design PV (private venture) 704 at a proposed cost of 4.5 million to show AVRO commitment to VTOL concept . Span 10.74 meters; speed: Version 1 - 360mph - Version 2 - 1305mph	Avro Car - Canada's Flying Saucer by Bill Zuk
1956	10	1	AvroCar	Avro resurrects Project Y in an unsuccessful proposal to U.S. Navy	Avro Car - Canada's Flying Saucer by Bill Zuk
1957	3	27	AvroCar	USAF extended project 1794 through October 1958. Project is now called Research System 606A. Investment to date: AVRO \$2,500,000; USAF \$2,600,000. Weapons Project 606A had AVRO build a 24.34 meter (80 foot) GETOL (ground effect take-off and landing) aircraft capable of 1000mph by March 1964. AVRO responds with a six-engine configuration.	Avro Car - Canada's Flying Saucer by Bill Zuk
1957	4	30	AvroCar	USAF contracts AVRO to build the flying prototype of PV704 to investigate the capabilities of the aircraft and evaluate its use as a weapons system by October of 1958.	Avro Car - Canada's Flying Saucer by Bill Zuk
1957	9	26	AvroCar	U.S. Army approached Avro with a request for a ground cushion tactical craft ("flying jeep").	Avro Car - Canada's Flying Saucer by Bill Zuk
1957	11	26	AvroCar	Report entitled "US Army Requirement for a New Family of Air Vehicles" features Avro's "AVROmobile", a craft marketed to the US Military and Canadian Army through 1957.	Avro Car - Canada's Flying Saucer by Bill Zuk
1957	11	29	AvroCar	Avro briefed General Herbert J. Gavin, Chief of US Weapons Phasing Division on a vehicle based on PV704 design. USAF / US Army awarded AVRO a contract for \$4,432,497 for fabrication and testing of two vehicles.	Avro Car - Canada's Flying Saucer by Bill Zuk

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1958	1	29	AvroCar	Avro Special Project Group met with Dr. Alexander Lippisch, who devoted his postwar energies to ground effect research. He offered Avro movies of his Aerodyne design.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	1	26	AvroCar	USAF proposal SR-198 laid out specifications for a Mach 3 weapon system. Although funded by the U.S., reporter Williams of the Winnipeg Tribune reported: "Among those who were in the know, there was great conflict. Some thought Frost was loony and the company people who were ready to put some cash into it were even loonier." "The main problem with the designs proposed was in the propulsion system... Frost came up with a design that defied all previous technology. Had there been enough time and money, it is conceivable his revolutionary engine could have been built."	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	3	4	AvroCar	Stop / Go-ahead date was inserted in the schedule by the U.S. Construction halted on the second prototype. Deadline date. Avro decided to support special projects after 1959 U.S. report that the AVROcar / 606A programs were "all AVRO has".	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	5	27	AvroCar	Roll-out of first AvroCar. A second machine was assembled - Avro wanted to build a third form spar parts with its own funds (PV705), but reciprocal arrangements for the U.S. engines fell through and the third vehicle was never built.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	6	30	AvroCar	USAF awarded Avro \$600,000 for Weapons System 606A supersonic fighter.	Avro Canada C102 Jetliner by Jim Floyd
1959	9	29	AvroCar	First tethered flight of second AvroCar.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	10	7	AvroCar	Flight test results on the AvroCar indicated that one-third of the thrust was being lost to exhaust inefficiencies. This required a complete re-design. A decision to keep the original structure and limit tests to ground cushion environment was a costly decision that crippled the entire program.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	11	21	AvroCar	First AvroCar was shipped through the Panama Canal to the NASA Ames Wind Tunnel in California for full scale wind tunnel testing, commencing April 1960.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	12	18	AvroCar	Approval of WS606A Pre-Phase Planning Report led to a radically new concept by newcomers in the WS606A Design Office. They were all convention thinkers who started to make it into a high sweep delta airplane that looked very much like an Arrow. Span 47.66 feet - Speed 1500mph. The delta proposal caught the U.S. Military off-guard and they told AVRO to continue with the circular plan form. With Avro's lobbying for the delta project, it became evident that Avro Canada was lobbying desperately for its own survival. Frost virtually dropped out of the WS606A program to focus on the AvroCar.	Avro Car - Canada's Flying Saucer by Bill Zuk
1959	12	19	AvroCar	First free flight of an AvroCar. It never exceeded on meter off the ground, its ability to rise, hover, or fly at top speed was extremely disappointing, but the lack of control in free flight was its undoing.	Avro Car - Canada's Flying Saucer by Bill Zuk
1960	3	15	AvroCar	U.S. NASA Ames test pilot and research engineer, Fred J. Drinkwater III was not deterred by the slow development progress; "All new flying concepts are cans of worms at the early stage."	Avro Car - Canada's Flying Saucer by Bill Zuk
1960	7	20	AvroCar	Directorate of Advanced Systems Technology, USAF, closed down Weapon System 606A, as funds ran out. There was no American interest in discussing Avro proposals for other projects.	Avro Car - Canada's Flying Saucer by Bill Zuk
1961	1	1	AvroCar	John Frost in the Canadian Aeronautical Journal: "...It is unfortunate that our sights were set on developing a supersonic vertical takeoff aircraft when Avro stumbled on the ground cushion, otherwise we might have paid more attention to its possible use as an amphibious surface vehicle	Avro Car - Canada's Flying Saucer by Bill Zuk
1961	10	0	AvroCar	US Army terminated its support of the AvroCar because of its inability to transition to horizontal flight	Aviation Magazine
1924	4	1	Canada	RCAF was recognized on a permanent basis as one of the components of Canada's defense system (birth of the RCAF).	Aircraft & Airport, February 1949

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1936	11	2	Canada	The Federal Government created the Department of Transportation with C.D. Howe as Minister.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1937	4	2	Canada	Government passes the 'Trans Canada Airlines Act' giving TCA a monopoly on air travel in Canada	Aviation Magazine
1937	4	10	Canada	Trans-Canada Airlines (TCA) was created by the federal government as a subsidiary of Canadian National Railways. (Canadian Pacific Railway withdrew its support when it became clear the government insisted on controlling the airline.)	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1940	7	8	Canada	C.D. Howe leaves Department of Transportation, although his influence continued to be felt in air transport almost as though he had never left - the government reserved the best commercial routes for TCA - (which would become Air Canada).	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1942	5	16	Canada	Canadian Pacific Railway began Canadian Pacific Airlines (CPA).	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1942	11	5	Canada	National Steel Car expropriated by the federal government to become Victory Aircraft Ltd. The first British designed Avro Lancaster flew August 1, 1953 with one per day to follow. Workers bustled with pride at their achievement and a general spirit of camaraderie prevailed.	The Avro Arrow Story by Bill Zuk
1944	1	1	Canada	Liberal C.D. Howe called the dictator of civil aviation during debate of Aeronautics Act in the House of Commons.	Aircraft & Airport, July 1950
1944	1	1	Canada	The Canadian Government established Turbo Research Ltd as a Crown corporation to develop jet engines for the RCAF.	Avro Car - Canada's Flying Saucer by Bill Zuk
1944	1	4	Canada	Turbo Research test facility first ran the Whittle engine	Avro Canada C102 Jetliner by Jim Floyd
1947	11	0	Canada	Canadian War Assets Corporation runs advertisements for surplus aircraft - prices range from \$375-\$2,500	Canadian Aviation Magazine
1948	1	1	Canada	Canada spends 7.0 million to buy 85 British Vampire fighter jets - another 300,000 to buy 30 P51 Mustang propped WWII fighter aircraft.	Aircraft & Airport, January 1949
1948	1	1	Canada	Editorial "What is our fate in 48." In the United States, vast sums are being spent in the aircraft industry. In Canada, no less strategically located, the industry is a credit to the manufacturers who, to survive in the post-war, have taken on "bread & butter" work such as manufacturing washing machines, motor coaches, and even pots & pans (a statement that reflects not only the state of the aviation industry but Canada's defense preparedness).	Aircraft & Airport, January 1948
1948	1	17	Canada	First "Preview" flight of RCAF Vampire from Downsview Airport - Canada's first jet fighter.	Aircraft & Airport, January 1948
1948	4	1	Canada	Editorial (page 11): "It is our firm conviction that Canada, to remain a free country and become a major power in the air world, must maintain an eternally vigilant attitude toward the aviation industry... If Canada is to retain any semblance of a nation, air wise, that she was a cog in the allies' air force, then something must be done-and done quickly."	Aircraft & Airport, April 1948
1948	5	1	Canada	Editorial: "No Votes in National Defense" "In the matter of national defense, there are three inescapable facts which must be faced: We are incapable of defending ourselves if attacked suddenly. We are incapable of holding off an enemy until assistance reaches us from another power. We have no immediate means of helping our friends and allies elsewhere. This is an appalling situation, but it is not stressed in the national policy, nor is it a matter of discussion in the House of Commons or in political campaigns." As no other country does, we depend on the airplane for national defense." Rodney Adamson, M.P.	Aircraft & Airport, May 1948

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1948	7	1	Canada	Editorial: Government awards Canadian Pacific Airlines international routes TCA was unable to handle. "However, while it is regrettable that it was necessary for the government to perform an about face on its fore sworn policy that TCA should have exclusive franchise to all routes...the action taken will prove to be a satisfactory one."	Aircraft & Airport, July 1948
1948	7	1	Canada	RAF Vampire jet fighters leave Britain for Canada on goodwill tour supported by three AVRO York Transports.	Aircraft & Airport, August 1948
1948	8	1	Canada	Editorial: ...in every theatre of WWII, air power made the difference between victory and defeat. Canada should construct defense strategy around producing equipment/aircraft for defense of Canada and North America more so than concerning herself with integration with British to European forces.	Aircraft & Airport, August 1948
1948	8	1	Canada	Federal Government orders 22 Canadair North Stars for the RCAF.	Aircraft & Airport, August 1948
1948	8	1	Canada	Editorial "Is it enough": "News of increased activity in the RCAF...the world situation as it is, the new program comes none too soon. Two regular fighter squadrons are to be in existence within twelve months which sounds like a long time when the international situation is running hot and cold on alternate minutes...too little too late has brought too many previous sad experiences."	Aircraft & Airport, September 1948
1948	11	1	Canada	Editorial criticizing Canadian government for not addressing the Cold War with Russia..."Time is Running Out" - "What madness is this from which we Canadians are now suffering? Do we not know there is a war on? ...our government speaks vaguely of being able to stop any attacker. There are those who say that Russia does not have a bomber of sufficient range (to over fly Canada en route to industrial centers). If Russian can gain control of Northern Canada, what is to stop her from building bases and step-by-step taking over Canada...(making Canada the war zone between Russia and the United States). Taxpayers must dig deep for a stronger air defense - "We can't afford to be without it."	Aircraft & Airport, November 1948
1948	12	1	Canada	Editorial criticizes Canadian government for not participating in Berlin Airlift - "Canada a Spectator in Cold War" RCAF DCM4-2 Transport aircraft sit idle at Downsview Airport... If sufficient aircrew cannot be mustered for a comparatively small operation such as Canada's part in the Airlift would be, then how would we be able to stop an attack the way we have been told by Government. It seems that logic is not part of the present Government's make up.	Aircraft & Airport, December 1948
1949	1	1	Canada	Defense Minister Claxton announced spending \$10.4 million to upgrade 209 WWII service aircraft and another \$7.3 million to purchase 85 British Vampire jets and \$.3 million to buy 30 American P-51 piston powered Mustangs.	Aircraft & Airport, August 1949
1949	1	1	Canada	Canada negotiates with Americans to build F-86 Sabre fighter aircraft.	Aircraft & Airport, January 1949
1949	1	1	Canada	RCAF wartime strength of 215,000 had shrunk to 14,000 in 1949. "War had made a man of the RCAF and peace had drained all its strength away."	Aircraft & Airport, October 1951
1949	1	1	Canada	Value of aircraft produced in Canada during 1949 was \$61.1 million - up from \$45.6 million in the previous year.	Aircraft & Airport, November 1951
1949	3	1	Canada	Editorial "What's Going On" - laments the very near danger being posed by the growing cold war. "Yes, we are prepared to play our full part in a mutual defense pact. We are armed to the teeth with statistics of British Commonwealth Air Training Plan, with negotiations to build F-86 fighters, with experimental jet engines that have years of development ahead of them, with the prototype of an all weather fighter that has yet to fly, with supersonic research laboratories that are still to be built. ...besides all this, we have 74 Vampire jets and 30 P-51 WWII fighters."	Aircraft & Airport, March 1949

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1949	4	1	Canada	Trade Minister, C.D. Howe, announced purchase of 30 American F-86 Sabre aircraft for the RCAF while Canadair of Montreal mounts production (To date, the aircraft has not been flown by RCAF - Aircraft & Airport, May 1949).	Aircraft & Airport, April 1949
1949	6	30	Canada	RCAF 3,000 short of its goal of 18,278 officers and men.	Aircraft & Airport, September 1949
1949	7	13	Canada	Although the federal government had intended that TCA would fly the Pacific as well as the Atlantic oceans, it reluctantly gave the Pacific routes to Canadian Pacific Airlines.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1949	8	1	Canada	RCAF award Canadair \$30 million contract to build 100 American 4-86 Sabre airframes - the lack of an engine order bodes well for Avro's new Orenda engine.	Aircraft & Airport, September 1949
1949	10	1	Canada	Editorial "That Inferior Altitude". "It can't be any good if it's made in Canada. It's surprising just what a prevalent opinion that is in aviation circles in Canada. -- It is, apparently, a prominent symptom of that Canadian failing which we hear about periodically: a national inferiority complex. -- the aviation industry in Canada has nothing to be ashamed of, but we wish a lot of people in it would quit saying: "Oh, really, it's nothing. I'm sure anybody else could do it twice as well." They should drop dead."	Aircraft & Airport, October 1949
1949	11	1	Canada	Canada's NRC (National Research Council) awarded \$275,000 for construction of a super sonic wind tunnel for model aircraft.	Aircraft & Airport, October 1949
1949	11	1	Canada	Power for the Future - Book on missiles by A.R. Weyl (Temple Press Ltd. - London) After reading this book, one can't help getting the feeling that the days of the turbojet are numbered before they really even get started. It would seem the Russians have long been interested in rockets.	Aircraft & Airport, November 1949
1950	1	1	Canada	Canadian Pacific Airlines announced that it had ordered two DeHavilland 48 seat Comet passenger jets.	Aircraft & Airport, April 1950
1950	1	1	Canada	The first jet engine overhaul plant in Canada opened by DeHavilland Aircraft at Downsview, Ontario.	Aircraft & Airport, January 1950
1950	1	1	Canada	The Interceptor's Future - James Hay Stevens: Five essentials for a fighter are: speed, climb, maneuverability, range (endurance) and fighting power (last being largely dependent on first four)...the Delta Wing aircraft will probably be the answer...	Aircraft & Airport, November 1950
1950	3	1	Canada	Defense Minister Brooke Claxton admitted to buying \$10 million in radar and armaments from the U.S. For F-86 Sabre aircraft being built in Canada at Canadair.	Aircraft & Airport, May 1950
1950	3	17	Canada	Defense Minister Brooke Claxton advises The House of Commons that the Avro Orenda is believed to be the most powerful jet engine in existence.	Aircraft & Airport, May 1950
1950	3	17	Canada	Strength in the Air - Conservative Defense Critic Maj. Gen. Pearkes, in a general condemnation of Canada's choice of the F-86 Sabre fighter: I am tempted to ask whether the strategic technical, and economic factors concerning the F-86 have not been overridden by political consideration...the F-86 does not measure up to Canadian requirements...for interception of bomber aircraft.	Aircraft & Airport, May 1950
1950	3	17	Canada	Conservative Defence Critic, General Pearkes in a condemnation of the Liberal Government's choice of the F-86 Fighter "... I am tempted to ask whether the strategic technical, and economic factors concerning the F-86 have not been overridden by political consideration....The F-86 does not measure up to Canadian requirements...for interception of bomber aircraft.	Aircraft & Airport Magazine



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1950	5	11	Canada	Editorial - "A Finger in Every Pie": Conservative MP Howard C. Green reminds Liberal Minister of Trade and Commerce, C.D. Howe, he was called the dictator of civil aviation in 1944. Liberal, C.D. Howe responded with "Perhaps so; but who would you suggest should be dictator?" Mr Green went on to remind Mr. Howe that it appeared that Mr. Howe personally administered everything to do with TCA even though it was the jurisdiction of Minister of Transport, Lionel Chevrier.	Aircraft & Airport, July 1950
1950	6	1	Canada	Trade Minister C.D. Howe, answering to the Parliamentary Committee on Railways and Shipping, stated that if TCA's Atlantic Services didn't start to show a profit in the next five years, then serious consideration would have to be given as to whether to continue them.	Aircraft & Airport, June 1950
1950	6	21	Canada	Canadian Liberal Defense Minister, Brooke Claxton, commenting on the Korean Declaration of War: "...We believe our Air Force is adequate for the defense of North America at the present time, in cooperation with forces of the U.S. that would be employed in that task, particularly in Alaska in the Northwest and in Newfoundland in the Northeast."	Aircraft & Airport, August 1950
1950	8	1	Canada	Editorial "No Time for Tradition": "By the time this is read, Canada will probably either be involved in World War III, or just getting over the biggest fright the country has had in a long time. In any case, the Korean conflict has certainly accentuated Canada's unpreparedness."	Aircraft & Airport, August 1950
1950	9	1	Canada	Transport Minister, Lionel Chevrier reports that in 1950, after a four year interval, Trans Canada Airlines will again find itself showing a profit on its domestic operations.	Aircraft & Airport, November 1950
1950	12	1	Canada	Canadian Government establishes National Aeronautical Establishment (NAE) as an aeronautical research and development center originally administered by the National Research Council (NRC).	Storms of Controversy, by Palmiro Campagna - 1992
1951	1	1	Canada	RCAF's No. 421 Red Indian Squadron, based in United Kingdom, flies RAF Vampires.	Aircraft & Airport, August 1951
1951	1	1	Canada	RCAF borrows 100 American T-6 Texan (Harvard) trainers only to return them in 1952 as Canadian Car & Foundry production exceeds 150.	Aircraft & Airport, November 1952
1951	1	1	Canada	Canada buys \$900 million of war materials from the U.S. - the U.S. buys \$180 million worth of Canadian goods.	Aircraft, July 1953
1951	1	1	Canada	U.S. Military fails to convince Canada to deploy a fighter squadron to Korea war theatre.	Aircraft & Airport, March 1952
1951	1	1	Canada	Canadian Research Council (NRC) and the Defense Research Board establish National Aeronautical Establishment (NAE) "...the present world situation (Korean conflict) produced an urgent need for increased effort in aeronautical research for defense purposes.	Aircraft & Airport, March 1952
1951	2	1	Canada	Editorial "Point of No Return": "...In terms of utmost simplicity, strategic airpower involves winning control of the air over all the enemy's territory and then forcing surrender by threat of destruction from the air..." "...This broad control would require a Democratic air force build around ultra-long-range heavy-load-carrying bombers..." Major Alexander P. de Seversky (author note - if a nation does not have such advantage then it must devise a way to defend against it).	Aircraft & Airport, February 1951
1951	3	1	Canada	Government established department of Defense Production recognizing "that there were cases requiring specialized facilities for which industry could not, under the circumstances, be expected to take the risks involved. Wherever possible, the Division has attempted to spread the work load of defense requirements so as to include all parts of the country."	Aircraft, March 1954
1951	3	31	Canada	Sale of aircraft and components by Crown Assets Disposal Corporation were \$62 million for the year ending March 31/51.	Aircraft & Airport, November 1951

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1951	4	1	Canada	Defense Research Board begins work on government approved "Velvet Glove" guided missile program at the Canadian Armament Research Development Establishment (CARDE)	Storms of Controversy, by Palmiro Campagna - 1992
1951	5	1	Canada	First two of a number of T-33 jet trainers acquired by the RCAF arrive at Trenton.	Aircraft & Airport, July 1951
1951	7	1	Canada	Average hourly wages for aircraft manufacture \$1.289/hr	Aircraft & Airport, November 1951
1951	7	1	Canada	Air Vice Marshall D.M. Smith announced that Canadian Car & Foundry will produce Harvard trainers for North America through its Fort Williams and Montreal Canada plants.	Aircraft & Airport, July 1951
1951	7	1	Canada	Minister of Defense, C.D. Howe advises House of Commons that plans were underway for Canadair to build T-33 jet trainers.	Aircraft & Airport, July 1951
1951	7	1	Canada	RCAF North Star transports begin Korean airlift (250 trips in next 12 months).	Aircraft & Airport, September 1951
1951	7	9	Canada	Editorial: "Canada is buying \$900 million worth of war material from the U.S. Orders placed by the U.S. for Canadian materials are about one fifteenth that value."	Aircraft & Airport, August 1951
1951	8	1	Canada	Air Vice Marshall J.L. Plante appointed senior staff officer of allied Air Forces in Europe.	Aircraft & Airport, August 1951
1951	8	1	Canada	Announced that a large number of American T-6 (Harvard) trainer will be loaned to Canada until Canadian Car & Foundry program produces Canadian Harvard's in sufficient numbers.	Aircraft & Airport, August 1951
1951	9	1	Canada	RCAF buys three British Bristol Freighters.	Aircraft & Airport, September 1951
1951	9	1	Canada	RCAF strength surpasses 27,000.	Aircraft & Airport, November 1951
1951	9	1	Canada	RCAF buys one hundred WWII surplus B-25 bombers as trainers.	Aircraft & Airport, September 1951
1951	9	1	Canada	First of the new Beech Expeditors ordered by the RCAF arrive in Canada.	Aircraft & Airport, September 1951
1951	9	1	Canada	RCAF take last few WWII AVRO Anson trainers from storage and put them to work for supply and communications at Trenton.	Aircraft & Airport, September 1951
1951	10	1	Canada	TCA announces order of five Lockheed Super Constellations for delivery in 1953. Department of Defense production announces license agreement for it to build 575 T-33 jet trainers and has given the work to Canadair.	Aircraft & Airport, October 1951
1951	10	27	Canada	Canadian Car & Foundry produce the first Harvard Trainer from components supplied by other facilities.	Aircraft & Airport, November 1951
1951	11	1	Canada	The RCAF ordered two British deHavilland Comets	Avro Car - Canada's Flying Saucer by Bill Zuk
1951	11	1	Canada	National Research Council announces completion of supersonic wind tunnel.	Aircraft & Airport, November 1951
1951	12	1	Canada	C.D. Howe, Minister of Defense Production announced Canadair to assemble Rolls Royce Nene turbojet engines for the T-33 jet trainer.	Aircraft & Airport, December 1951
1951	12	1	Canada	RCAF announces the purchase of two DeHavilland Comets as high speed transports at a cost of \$3 million. Delivery expected by end of 1952.	Aircraft & Airport, December 1951
1952	1	1	Canada	Canada imports \$163 million U.S. aviation products - exports to the U.S. a mere trickle.	Aircraft, July 1953
1952	1	1	Canada	Canadian Institute of Aero physics announces new hypersonic wind tunnel capable of providing air velocities up to Mach 10 at Downsview Airport near Toronto.	Aircraft & Airport, January 1952
1952	1	2	Canada	First eight of 400 Canadian built F-86E Sabres delivered to the RAF in London.	Aircraft & Airport, February 1953

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1952	2	1	Canada	Canada and U.S. sign an agreement that restricts the U.S. Military to placing such orders with the Canadian Commercial Corporation which in turn will place the contracts with Canadian industry.	Aircraft & Airport, April 1952
1952	2	1	Canada	Editorial "...Aviation contractors themselves are not able to agree as to whether or not the Dept. of Defense Production has definitely limited profits...it is apparent that the Department is definitely working on a 7.5% limitation.	Aircraft & Airport, February 1952
1952	3	1	Canada	The twentieth and last American built T-33A delivered to the RCAF.	Aircraft & Airport, July 1952
1952	5	1	Canada	Canadian Senator makes eloquent plea for MP's and Senators to be given three or four TCA must go passes per year.	Aircraft & Airport, July 1952
1952	5	30	Canada	C.D. Howe, Minister of Defense Production diverts 60 F-86E Sabres to the USAF for use in Korea.	Aircraft & Airport, July 1952
1952	6	1	Canada	Canadian Defense Research Board announced development of an air-to-air missile at its Armament Research and Development Centre at Valcartier, Quebec.	Aircraft & Airport, June 1952
1952	7	1	Canada	Canadian Government entertains legislation to permit the Industrial Development Bank to lend money to commercial air carriers.	Aircraft & Airport, July 1952
1952	7	27	Canada	First RCAF North Star left Tacoma, Washington to begin Canadian participation in Korean Airlift.	Aircraft & Airport, May 1952
1952	9	19	Canada	Canadian Pratt & Whitney Aircraft Ltd. open their engine plant at Jacques Cartier, Quebec with Defense Production orders for \$30 million of R-1340 piston engines.	Aircraft & Airport, November 1952
1952	9	23	Canada	60 RCAF F-86E leave for France and NATO duty. No other NATO country can put such numbers of modern fighter aircraft into European skies.	Aircraft & Airport, October 1952
1952	10	1	Canada	RCAF Air Transport Command (ATC) air crews training for Comet transport aircraft expected in April 1953. Although operated by ATC, they will be used primarily by Air Defense Command to simulate enemy jet bombers.	Aircraft & Airport, October 1952
1952	10	1	Canada	First flight of Canadair's first T-33A.	Aircraft & Airport, January 1953
1952	11	8	Canada	Air Marshall Wilfred Curtis announces his retirement as of Jan 31 his post to be taken over by Vice Marshall Charles Slemmon.	Aircraft & Airport, December 1952
1952	12	1	Canada	Canadian Defense Research awarded contracts to Canadair of Montreal and Hamilton's Westinghouse Company for the design and production of air-air guided missiles.	Aircraft & Airport, February 1953
1953	1	1	Canada	Air Marshall C. R. Slemmon, Chief of Air Staff - "...the primary agent of air power – a bomber force – is missing from the RCAF organization."	Aircraft, October 1954
1953	1	1	Canada	As of March, Canada has imported \$33 million in American aviation products exporting only \$4 million.	Aircraft, July 1953
1953	1	1	Canada	Federal government denies Canadian Navy request for purchase of American jet fighters for the new aircraft carrier Bonaventure in 1956.	Aircraft & Airport, January 1953
1953	1	27	Canada	Canadair delivered first T-33AN dubbed the 'Silver Star' to RCAF.	Aircraft, February 1954
1953	1	31	Canada	The new Chief of the Air Staff, C. R. Slemmon, was promoted to Air Marshall upon assuming command of the Canadian RCAF.	Aircraft & Airport, February 1953
1953	2	12	Canada	RCAF accepts delivery of its first Canadair T-33	Aircraft & Airport, March 1953
1953	3	1	Canada	RCAF to accept delivery of two Comet 1A's with airline type interiors.	Aircraft & Airport, March 1953
1953	3	1	Canada	Rolls Royce of Canada moves into its new plant and get started on the RCAF's order for 900 Nene 10 engines assembled for British parts.	Aircraft & Airport, March 1953

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1953	3	1	Canada	Government, at the urging of leading Conservative opposition members, sets up a separate Air Ministry because such a large proportion of the defense dollar is being spent on air power and the duties and responsibilities of the Minister of National Defense were too much for one man.	Aircraft & Airport, March 1953
1953	3	1	Canada	Canadair and Avro both claim to spend some \$12 million per month each having some 400 suppliers and subcontractors...it is probable that...upwards of 65,000 persons are contributing...their time and talents to the air defense production program.	Aircraft & Airport, March 1953
1953	3	1	Canada	It is understood that Defense Production Minister C. D. Howe's preference would be to build other nation's designs, modifying them for Canadian conditions. The RCAF hierarchy takes the opposite position that there is simply no other airplane design available from a friendly nation, that can meet the seemingly contradictory Canadian specification. Although Canada is building hundreds of Sabres and T-33 aircraft, they are not capable of doing the job of defense properly in Canada.	Aircraft & Airport, March 1953
1953	3	3	Canada	Canadian Pacific Airlines lost its bid to become Canada's first commercial jet operator when one of two British DeHavilland Comet 1A's crashed on its delivery flight. Although CPA maintained an interest in the aircraft, it never operated it commercially.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1953	3	23	Canada	RCAF accept delivery of its first Comet.	Aircraft & Airport, May 1953
1953	5	1	Canada	Trade Minister, C.D. Howe announced changes to the TCA Act that will see the company reorganized so that it more closely resembles a private commercial corporation.	Aircraft & Airport, May 1953
1953	5	1	Canada	500 F-86 Sabres now delivered to Canadian government by Canadair.	Aircraft & Airport, May 1953
1953	5	1	Canada	USAF orders 200 Beech T-34A Trainer aircraft from Canadian Car & Foundry.	Aircraft & Airport, May 1953
1953	5	14	Canada	After years of trying, Max Ward received approval to operate a small charter service when the Canadian government changed its policy to allow limited competition. Wardair grew into a world wide charter service.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1953	5	15	Canada	Central British Columbia Airways changed its name to Pacific Western Airlines and grew to be Canada's third largest carrier.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1953	5	29	Canada	RCAF's first Comet arrives in Canada as the first turbojet to join a military service.	Aircraft, June 1953
1953	6	16	Canada	The RCAF's second Comet transport arrives in Canada.	Aircraft, July 1953
1953	7	1	Canada	Canadian Pacific Airline's application for an all-cargo service from Montreal/Toronto to Vancouver is turned down as Canadian government sticks with its chosen instrument (TCA) policy.	Aircraft, July 1953
1953	7	1	Canada	USAF canceled T-36 trainer contract with Canadair forcing layoff of 1,500 workers a situation suspected, in light of political needs, to influence the RCAF search for new maritime aircraft in favor of Canadian firms and employment.	Aircraft, July 1953
1953	7	1	Canada	TCA flew 120,505 passengers largest one month total in company's history.	Aircraft, September 1953
1953	8	1	Canada	Canadian Pacific Airlines having lost one Comet in a crash, sells its second Comet while rethinking its order for four more.	Aircraft, September 1953
1953	8	1	Canada	Editorial - High Cost of Licensing: Canada spending millions in licensing fees to build foreign aircraft It should be remembered that every dollar paid out...goes to the development of foreign industry.	Aircraft. August 1953
1953	9	1	Canada	Editorial - Subsidized Competition: Defense Minister, Brooke Claxton, caught authorizing commercial use of RCAF North Stars at 50% of commercial rates.	Aircraft, September 1953

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1953	9	13	Canada	Canadair awarded contract to build US T-33 aircraft under license from Lockheed Aircraft.	Aircraft, February 1954
1953	10	1	Canada	RCAF strength now 41,500 officers and rank personnel.	Aircraft, October 1953
1953	10	1	Canada	At the end of the Second World War, Canada demobilized her armed forces to such an extent that we could not have fought our way out of a paper bag - Wing Commander G.R.M. Hunt of Air Plans Strategic.	Aircraft, October 1953
1953	10	1	Canada	Article - The RCAF: ...formation of home defense squadrons is little more than a mopping up operation. Our air defenses are like a new house waiting on shingles, everything is fine, if it doesn't rain.	Aircraft, October 1953
1953	10	1	Canada	Air Vice Marshall A.L. James, Air Officer Commanding, Air Defense Command, speaking on Exercise Tailwind: I do not want to leave the impression...that I'm completely satisfied...much hard work remains to be done before maximum effectiveness will be reached. 'Tailwind' did prove that a good air defense is practicable.	Aircraft, October 1953
1953	10	1	Canada	Milestones in Progress - Air Marshall Slemmon: Our planning and training have been designed to make us a useful partner with the USAF in the air defense of this continent...	Aircraft, October 1953
1953	10	1	Canada	Editorial: Canada faces choice between occupation by Russia or subservience to U.S. when retiring chairman of the U.S. Joint Chief of Staff,, General Omar Bradley, suggests a unified command of Canadian & U.S. armed forces.	Aircraft, October 1953
1953	11	11	Canada	Federal Cabinet rejects CP Air application causing considerable controversy with respect of TCA's socialist, government backed monopoly on Canadian airline industry.	Aircraft, December 1953
1953	12	1	Canada	Defense Minister, Brooke Claxton announced that Canada will provide T-33AN Silver Stars and F-86 Sabres to NATO allies - paid for out Canada's Mutual Aid appropriation.	Aircraft, January 1954
1954	1	1	Canada	"...today, after building substantial quantities of one particular aircraft, we are still processing 750 change orders per week." Dean P. Stowell, Assistant President, Canadair Ltd. (Note: Canadair typically built aircraft designs under license from other companies, Sabre, T-33...)	Aircraft, January 1954
1954	1	1	Canada	Before production deliveries of an aero plane there are two easily recognized intervals: period from initiation of design to test flight, and period from first flight to beginning of production. Each of these periods is from 1-4 years. "Only when the prototype flies can the design be assessed. It is at this stage that customers begin to press for delivery." R.B. McIntyre, Executive Engineer, de Havilland Canada	Aircraft, January 1954
1954	3	1	Canada	Canadair delivers record 146 aircraft to RCAF in the month of March.	Aircraft, May 1954
1954	3	1	Canada	Editorial "Facing the Facts": National defense means spending astronomical amounts of money that is not politically advantageous to any government. ...crash build-ups like the one we are now just getting through, are uneconomic.	Aircraft, March 1954
1954	4	1	Canada	Editorial "Fleet in Being": "...we believe that the Government should finance construction of a fleet of cargo transport aircraft, and then lease them to civilian commercial operators, subject to recall in time of emergency" (Note: Canada continues its long history of not having the means to transport men/materials in times of war or emergency.)	Aircraft, April 1954
1954	4	8	Canada	Canadair delivers 500th F-86 Sabre to RCAF.	Aircraft, May 1954
1954	4	20	Canada	Canadair delivers 1,000th F-86 Sabre to RCAF.	Aircraft, May 1954

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1954	5	1	Canada	"The case for Complexity" by Group Captain H. R. Footit - "...Costs of modern aircraft have hit such an all-time peak that the aircraft manufacturer can no longer design and develop a new one without government backing. Why? Complexity!..."	Aircraft, May 1954
1954	8	1	Canada	Editorial - "The Indispensable Engineer": Only two aeronautical engineers were graduated this year in all of Canada...the industry's lack of appeal to engineers can be traced to its boom or bust reputation."	Aircraft, August 1954
1954	8	1	Canada	"Engineers and Aircraft Production" - Group Captain H. R. Footit - "...since the first Sabre flew August 10, 1950 there have been 50,000 separate engineering change orders in three years." The new Sabre 5 required changes to 50% of the structure of the aircraft...."	Aircraft, August 1954
1954	9	1	Canada	RCAF Comet Transports grounded following repeated crashes of commercially operated Comets.	Aircraft, September 1954
1954	10	1	Canada	Editorial: "Creating this powerful fore has been a costly project.... Yet to let it deteriorate and then rebuild it would require funds many times greater than the price to maintain it."	Aircraft, October 1954
1954	11	1	Canada	Editorial "An Emergency Fleet": Discussion of the shortage of transport aircraft to support the Allies Korean effort. "It is impractical for the RCAF to purchase substantial numbers of heavy transports...and then put them in 'mothballs' until needed. The best answer is the one suggested many times. Let the government finance the construction of a fleet of such aircraft, then make them pay their way by leasing them to commercial operators."	Aircraft, November 1954
1954	11	1	Canada	Defense Production Minister C. D. Howe: "guided missiles of all types will be produced in Canada when acceptable types are available."	Aircraft, November 1954
1955	1	1	Canada	Editorial on government approved monopoly on air routes: Government, at the very highest levels, has been openly dangling the carrot of competing services... But not once has an application for such been approved."	Aircraft, January 1955
1955	2	1	Canada	Canada, between 1939-45, built 16,418 aircraft, exporting 9,950. Since 1945 (to 1955) Canada built another 4,400	Aircraft, March 1955
1955	2	1	Canada	Canadian government reduces aviation expenditures by 25% cutting aircraft and engine procurement for the RCAF by \$100 million.	Aircraft, March 1955
1955	3	1	Canada	Canada's aircraft industry goes into decline as major production runs of aircraft are completed and the work force of major companies drops from 31,300 to 28,265.	Aircraft, March 1955
1955	3	31	Canada	RCAF strength of 49,461 exceeds the army's 49,409.	Aircraft, May 1955
1955	4	1	Canada	TCA began operating Vickers turboprop Viscount aircraft.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1955	5	1	Canada	RCAF searches for light bomber especially tailored close support missions - something to replace the WWII Mitchell bombers purchased from the U.S.	Aircraft, May 1955
1955	6	1	Canada	Editorial on the decline of Canada's aviation industry: "Strategically, economically, politically..... in just about every way conceivable, the maintenance of a broad industry base of sub-contractors is vital to the future of the aircraft industry, as well as the country as a whole"	Aircraft, June 1955
1955	6	1	Canada	RCAF contemplates putting their Comets, grounded by pressurization problems, back into service by having the crew fly them the old fashioned way - with oxygen masks.	Aircraft, June 1955
1955	6	3	Canada	Although service to Europe had been reserved for TCA, a special action by the Federal Cabinet allowed Canadian Pacific Airlines to service Europe as well.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1955	8	1	Canada	"We in Canada get as much as any country in the world for airplane defense dollar - and in many cases we get more." Thor Stephenson, Aircraft Branch of Department of Defense Production.	Aircraft, August 1955
1955	8	1	Canada	MP J.M MacDonnell raises the question in the House of Commons as to whether Avro's purchase of Canadian Car & Foundry threaten a near monopoly in aircraft production.	Aircraft, August 1955
1957	0	0	Canada	Production of the first CL-28, largest aircraft ever built in Canada (prior to 1959) - a complete re-design of the British Bristol Britannia	Canadian Aircraft Industries
1957	2	14	Canada	The Defence Committee recommends allowing the US to proceed with building US tanker airfields in Canada until such time as longer range US bombers could be developed- only a small number of US personnell would be stationed in Canada permanently and Canada would gain a number of improved airports in northern regions.... Canada asked to spend \$20 million to improve altitude capability of its twelve Pine tree radar stations	Conservative Cabinet Minutes - Government Archives
1957	7	27	Canada	John Foster Dulles visits the new Canadian Government of Prime Minister Diefenbaker for talks which quickly result in the formation of NORAD.	Fall of An Arrow by Murray Peden
1957	7	27	Canada	Canadian Minister of Defense Pearkes announces that Canada and the United States would link their continental air defenses in a single "North American Air Defense Command."	Fall of An Arrow by Murray Peden
1957	9	6	Canada	Conservative Federal Budget predicted a \$157 million surplus, but experienced a \$39 million deficit.	Fall of An Arrow by Murray Peden
1957	11	0	Canada	Aircraft Magaze editorial - "...Could it be that the reason for keeping the Canadian missile program so tightly screened is not so much to preserve technical secrets, as it is to hide the lack of tangible results	Aircraft Magazine
1957	12	2	Canada	Air Industries and Transport Association of Canada in a comprehensive brief to PM Diefenbaker warn that Canada's aircraft industry is in jeopardy without long range programs.	Storms of Controversy, by Palmiro Campagna - 1992
1958	3	31	Canada	The Diefenbaker Conservatives were re-elected with the largest electoral mandate in Canadian history - 208 out of 265 seats in the legislature..	Flying Blind: The Politics of the CF-105 Avro Arrow Program by R. Isinger - Aviation Review Dec 1966
1958	5	12	Canada	Canada and US sign NORAD agreement, although this integrated Air Defense Command had been established since August 1, 1957.	Storms of Controversy, by Palmiro Campagna - 1992
1958	5	30	Canada	Prime Minister Diefenbaker tells the House of Commons of receiving a letter from Russian Premier Nikita Khrushchev concerning flights of nuclear-armed SAC bombers over Canada, saying they pose a grave danger to Canada. "Parliament shrugged its shoulders and that was that."	Aircraft Magazine - July 1958
1958	6	17	Canada	Federal Budget predicts a \$648 million deficit - the largest since the end of World War 2	Fall of An Arrow by Murray Peden
1958	10	0	Canada	First quarterly meeting of Canada-US production sharing agreement....	Avro Museum RL 853-1958/10
1958	10	3	Canada	Globe & Mail Editorial - "...Canada has spent a great deal of money on the Arow. Certainly, some of that money has been wasted, but this was not Avro's fault.....With the Arrow (and CF-100 expenditures), we have bought new skills, new techniques, new industrial processes and plants which otherwise would not exist, but which today range far beyond the needs of the Avro program in their service to Canada. These gains are emphatically worth keeping... to use the savings, so-called, to buy US built weapons....we would be completely subservant to the US, not only in the military sense but, and to a greater degree, in the economic one...."	Avro Museum

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1959	2	0	Canada	'Where do we go from here?' by Arnold Warren - "We have a great, sprawling network of sub-contractors and suppliers ...We have standing idle a large aircraft plant and large engine plant, both equipped with the most modern tools and facilities....neither NORAD or the Americans believe the manned interceptor to be obsolete.....The Canadian Government has been able to sell out the Canadian aircraft industries, and economic and political interests of Canada as a nation, because the Canadian people have not been intelligently informed regarding the issues...."	Canadian Aircraft Industries
1959	2	5	Canada	In a confidential article attributed to the Under Secretary of State for External Affairs for Canada, Norman Robertson, suggests Canada's new dilemma revolves around how to integrate it's defenses with the U.S. while retaining its full national sovereignty.	Storms of Controversy, by Palmiro Campagna - 1992
1959	7	7	Canada	Conervative Cabinet agreed that Minister of Defence should tell the House of Commons that the government estimate for the new F-104G fighter program would be \$420 million to offset the erroneous impression that it will cost \$250 million.	Conservative Cabinet Minutes - Government Archives
1959	8	14	Canada	just four months after the Arrow cancellation and despite Avro winning the tender, Canadair in Montreal is awarded a \$420 million contract to build Lockheed F-104 Star Fighters under licence, The aircraft was dependant on nuclear weapons that Canada didn't have and of the 239 that served Canada, 110 were lost earning it the nick name 'Widow Maker'	
1960	0	0	Canada	The US decision to cut back on Bomarc missile bases comes in the wake of some unfortunate testing of the Bomarc B. The situation highlights Canada's need to replace the CF-100 or operate US Air Defence Squadrons' from Canadian Airbases. The decision has been necessary since cancelling the Arrow.	Canadian Aviation Magazine
1960	1	29	Canada	Conservative Cabinet - the Prime Minister said a leak to the press about a replacement aircraft for the CF-100 would undoubtedly give rise to embarrassing questions - Cabinet agreed to discuss a replacement the following week.	Conservative Cabinet Minutes - Government Archives
1960	2	0	Canada	recent announcement by Defence Minister Pearkes that CF-104 will be capable of carrying nuclear weapons	Canadian Aviation Magazine
1962	0	0	Canada	Canada accepts delivery of CF-101 aircraft with Falcon Missiles	Wings & Space Magazine
1962	2	0	Canada	Wings in Space editorial - '...As we grow in stature as an industrial nation, we must learn to advertise more, learn to be a little more demonstrative about our achievements....'	Wings & Space Magazine
1962	4	0	Canada	Dominion Rubber Co. wins Canada's largest Production Sharing contract arising from the Arrow cancellation \$800,000 for rubber fuel tanks for the Northrop T-38	Aviation Magazine
1962	12	0	Canada	A RCAF Yukon aircraft completes the longest flight in Canadian history - Tokoyo to London, Ontario - 6,750 miles	Wings & Space Magazine
1963	2	0	Canada	RCAF began flying its NATO CF-100's to the UK for disposal	Aviation Magazine
1963	4	0	Canada	Liberal Party wins Canadian Federal Election	Aviation Magazine
1963	11	0	Canada	RCAF retires its two DeHavilland Comet jet transports previously grounded for major re-fit	Aviation Magazine
1963	11	0	Canada	MP Robert Thomson - Canadian House of Commons - "...its is safer to fly in aircraft selected by technical people than to fly in one selected by politicians"	Aviation Magazine
1963	12	0	Canada	General Foulkes - "The low-level nuclear bombing role (CF-104's) is now redundant	Aviation Magazine
1963	12	0	Canada	Canadian F-86 Sabres in Europe stood down	Aviation Magazine
1964	4	24	Canada	Government policy statement that while CP Air could expand intercontinental routes, it would not be at the expense of TCA's viability.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1964	12	0	Canada	Tactical Fighter Selection Narrows...McDonnell F4 Phantom...Douglas Skyhawk...Northrop F5 trainer/fighter...."the final decision will probably reflect the most advantageous production deal that can be negotiated for Canadian industry...." (	Canadian Aviation Magazine
1965	1	1	Canada	Trans-Canada Airlines was renamed Air Canada.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1965	6	1	Canada	The Canadian government announced that CP Air would join Air Canada as a "chosen instrument" in government negotiations with other countries.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1966	4	24	Canada	Trans-Canada Airlines introduced the Douglas DC-9 jet liner	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1966	12	3	Canada	Air Canada announced it had reserved assembly positions for six American SST's as well as four Anglo/French Concorde's. The company subsequently dropped its Concorde positions and the American project was cancelled.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1967	3	27	Canada	Federal Transport Minister announced that CP Air would be allowed 25 per cent of the (TCA) intercontinental market by 1970?	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1967	11	10	Canada	Canadian Pacific Western Airlines became the first regional airline to use 4 engine jets when it introduced a Boeing 707. It was followed by five other regional carriers: Eastern Provincial Airways, Nordair and Transair with Boeing 737's and Quebecair with British Aircraft Corp (BAC) one-elevens.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1967	12	14	Canada	Wing Commander R.A. White sets Canadian altitude record of 100,100 feet with CF-104 Starfighter.	
1968	2	1	Canada	in what can only be deemed a political make work project, Government orders Canadair in Montreal to build 200 Northrop trainer aircraft that would be known as Canadian F-5 Freedom Fighters. Canada took only 89, and being limited by the US contract as to the countries they might sell to, were forced to put most in storage where they remained until declared obsolete surplus and and \$200 million worth scrapped in 2006.	
1968	2	1	Canada	The RCAF came to an end with the Canadian Forces Reorganization Act by the Federal Government.	Flypast by John Gellener in Canadian Aviation Magazine Anniversary 1978
1968	6	17	Canada	Canadian Pacific Airlines changed its public identity to CP Air.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1971	0	0	Canada	RCAF trades surviving Canadian CF-101's for older but improved US F101's....	
1980	0	0	Canada	Government orders 138 McDonnell Douglas F-18 Hornet multi role fighters at a cost of \$	
1999	0	0	Canada	Government suspends Federal Competition Act to facilitate Air Canada taking over competing Canadian Airlines	
2003	0	0	Canada	Air Canada, losing \$4 million per day files for bankruptcy protection ( only to be saved by Government)	
2005	1	25	Canada	Calgary Sun Editorial - "...we have relied increasingly on our mighty neighbor to the south to do the real work when it comes to protecting North America....Let us put an end to this political waffling and tell Candains and Americans alike that when it comes to defending or border, Canada is ready to stand and be counted...."	Calgary Sun Newspaper
2005	2	25	Canada	"The US will decide when to fire missiles over Canadian airspace whether Canada likes it or not - American Ambassador Paul Cellucci	Calgary Sun Newspaper
2005	3	5	Canada	in what is called the 'deal of the day' a small Montreal company founded by three top gun fighter pilots has won a \$94 million federal contract to provide jets and pilots for Canadian Forces training exercises....	Calgary Herald Newspaper

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
2005	3	9	Canada	Prime Minister Martin's refusal to join the US Missile Defences the worst military decision ever taken by a Canadian Government - that would include the decision of PM Diefenbaker to destroy the Avro Arrow and accept the Bomarc missiles but not the nuclear warheads that made them effective ----John Ferguson, Director of The Center for Defence and Security Studies.....	Calgary Herald Newspaper
2005	3	12	Canada	Canadian businesses losing contracts, jobs and investments because of Ottawa's decision not to join US Missile Defence. Some of our members equate it to the Avro Arrow decision, where they could see a brain drain that went south of the border....	Calgary Sun Newspaper
2005	4	9	Canada	Aircraft sought for artic defense - at present, the only military planes stationed in the north are four twin otters in Yellowknife NWT..	Calgary Herald Newspaper
2005	4	12	Canada	'Taking Politics out of Procurment' - Canadian Defence Minister Graham acknowlged the average time for aquisition of a major military systems exceeds 15 years and that it has taken a 12 year quest to aquire the right military backpack....	Calgry Herald Newspaper
2005	6	19	Canada	Liberal Defence Minister Graham denies allegations of dumberg down a \$1.3 billion contract for new search and rescue aircraft in an attempt to favour an Italian company...	Calgary Sun Newspaper
2005	9	29	Canada	Leading Canadian military historian and analyst says Canada does not have a plan or the resoruces to deal with a war or a major natural disaster.....many Canadians believe the Americans will defend Canada....	Calgary Herald Newspaper
2006	2	3	Canada	several years ago, the Canadian Government invested \$150 million in the US Joint Strike F-35 Fighter - now expected to cost \$10.5 Billion.	Calgary Herald Newspaper
2006	10	2	Canada	Canada cancels it \$39 million high seas radar system after just one complaint that it interferes with another communication transmission....	Calgary Herald Newspaper
2006	11	1	Canada	US export controls on sensitive military technology are a threat to Canadian purchase of %17 Billion in military hardware.....	Calgary Herald Newspaper
2006	12	14	Canada	Federal Government commit \$500 Million for new US F-35 fighter jets...	Calgary Sun Newspaper
2007	8	17	Canada	President Putin said that security threats had forced Russia to revive the Soviet-era Cold War practice of sending bomber aircraft on regular patrols beyond its borders - causing Canada, US and Britain scrambling interceptors	Calgary Sun Newspaper
2007	9	4	Canada	in an attempt to extend Russian influence over the Artic, Russia sent 12 Cold War Tupolev 95 'Bear' bomber aircraft to practise firing cruise missiles over the Artic.	Calgary Herald Newspaper
2007	9	9	Canada	Canadian planes intercept Russian Cold War bombers over the artic....	Calgary Sun Newspaper
2005	1	25	Canda	Canada called irrelevant on the world stage - its influence waning since the end of the Cold War	Calgary Herald Newspaper2005
2006	4	22	Canda	RCAF scrapping \$200 million worth of F-5 fighter that couldn't be sold despite having spent \$26 million running a sales and disposal program - the aircraft were retired from service in 1995 shortly after \$79 millionwas spent in upgrading.....	Calgary Herald Newspaper
1947	5	0	Canuck	A.V. Roe Canada announces development of a new long range, high speed fighter for the RCAF	Canadian Aviation Magazine
1949	5	1	Canuck	Seven months before first flight of development prototype, government awards Avro contract for ten pre-production CF-100.	Aircraft & Airport, April 1953
1949	12	19	Canuck	Avro released a brochure on "Proposed Long Range All Weather Fighter" which outlined the company's vision (swept wing CF-100).	The Dream Lives On by Bill Zuk / Januz Zurakowski

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1950	0	0	Canuck	design project for a swept wing version of the CF-100 aircraft designated CF-103 abandoned at the wooden mockup stage	Canadian Heritage Calendar
1950	1	1	Canuck	Avro Test Pilot, Bill Waterton describes Canuck as somewhere between the perfect fighter to fly and the perfect fighter to fight with... (aircraft flown only at half throttle). Its said the CF-100 is the most powerful fighter in the world	Aircraft & Airport, March 1950
1950	1	17	Canuck	CF-100 begins first taxi and ground handling trials	Canadian Heritage Calendar
1950	1	19	Canuck	First flight of Avro CF-100 Canuck all-weather fighter with Rolls Royce Avon RA2 engines	Avro Car - Canada's Flying Saucer by Bill Zuk
1950	3	1	Canuck	First static test of CF-100 structure.	Aircraft & Airport, April 1953
1950	3	11	Canuck	Avro Test pilot, Bill Waterton demonstrates prototype Canuck for RCAF at Rockcliffe (aircraft had only 11 hours flight time).	Aircraft & Airport, April 1950
1950	3	13	Canuck	Wing flex damage to Canuck as a result of the spar being weakened in its redesign	Avro Car - Canada's Flying Saucer by Bill Zuk
1950	4	29	Canuck	CF-100 canopy blows off aircraft at 700 ft and 340 knots	Canadian Heritage Calendar
1950	7	10	Canuck	First flight of the second Avro Canuck prototype.	Avro Canada C102 Jetliner by Jim Floyd
1950	10	1	Canuck	Avro awarded first production contract for CF-100's.	Aircraft & Airport, April 1953
1951	2	0	Canuck	test flown in Jan 1950, the CF-100 is described as the most powerful fighter in the world	Canadian Aviation Magazine
1951	3	21	Canuck	without a firm order, Government gives production authority for 718 complete CF-100 aircraft and 738 spare Orenda engines	Canadian Heritage Calendar
1951	3	31	Canuck	Government reports development cost of CF-100 airframe at \$6.8 million and the Orenda engine at \$21.5 million.	Aircraft & Airport, July 1951
1951	6	20	Canuck	first flight of an Orenda powered CF-100	Canadian Heritage Calendar
1951	7	0	Canuck	with the Jetliner program essentially shut down, Avro assigned Jetliner Design Engineer James Floyd as Production Works Manager to trouble shoot getting the CF-100 production line rolling	Avro Canada C102 Jetliner - J C Floyd
1951	7	1	Canuck	Avros' new fighter design is reported to be a swept wing CF-100 Canuck.	Aircraft & Airport, July 1951
1951	9	15	Canuck	Toronto National Air Show includes CF-100 Canuck and Orenda Lancaster.	Aircraft & Airport, November 1951
1951	10	17	Canuck	First delivery of production CF100's with Orenda Mark 2 engines. But problems with the weak wing spars persisted.	Avro Canada C102 Jetliner by Jim Floyd
1951	11	17	Canuck	RCAF receives its first, Orenda powered CF-100.	Aircraft & Airport, November 1951
1951	12	0	Canuck	a flurry of work undertaken to resolve the CF-100 main spar problem	Avro Canada C102 Jetliner - J C Floyd
1951	12	0	Canuck	Government cancels further development of the swept wing CF-100 designated C103	Avro Canada C102 Jetliner - J C Floyd
1952	1	1	Canuck	First CF-100 delivered to RCAF returned to Avro for modification of wing structure.	Aircraft & Airport, January 1952
1952	4	4	Canuck	Government oppositon complains about production problems and slow delivery	Canadian Heritage Calendar
1952	4	30	Canuck	first twelve aircraft built were pre-production models	Canadian Heritage Calendar
1952	6	20	Canuck	Defenses Minister, Brooke Claxton reveals RCAF plan to use CF-100 for defense of Canada when ready and post F-86E Sabre squadrons to NATO in Europe.	Aircraft & Airport, August 1952

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1952	7	22	Canuck	First CF100 trainer (18108) delivered to the RCAF at North Bay.	Avro Canada C102 Jetliner by Jim Floyd
1952	9	1	Canuck	First redesigned CF-100 delivered to RCAF Station North Bay.	Aircraft & Airport, September 1952
1952	9	20	Canuck	Orenda powered CF-100 Canuck makes public appearance at Toronto's Second National Air Show.	Aircraft & Airport, November 1952
1952	9	20	Canuck	Mark 3T Canuck flown at the Canadian National Exhibition Airshow was overstressed, bending its wings.	Avro Canada C102 Jetliner by Jim Floyd
1952	10	1	Canuck	Canadian Air Defenses comprised of early warning radar, communications and fighter interception although the cost of an effective radar screen is generally considered cost prohibitive. Until the CF-100's are available, it is a sad truth that in the hours of darkness or bad weather, Canada is not very well protected from air attack as none of the current fighter aircraft are intended for night flying duties.	Aircraft & Airport, October 1952
1952	10	11	Canuck	First flight of Mark 4 Canuck prototype with rocket pod wingtips.	Avro Canada C102 Jetliner by Jim Floyd
1952	11	14	Canuck	First production Canuck Mark 3 with guns delivered to North Bay.	Avro Canada C102 Jetliner by Jim Floyd
1952	12	1	Canuck	Canadian Dept of Defense Production awards Canadian Aviation Electronics of Montreal \$1.5 million contract to build CF100 static flight simulator.	Aircraft & Airport, December 1952
1952	12	1	Canuck	In spite of the many criticisms leveled at the CF100...there is still no other all-weather fighter in the western world at a comparable stage of production.	Aircraft & Airport, December 1952
1952	12	18	Canuck	Zurakowski breaks the sound barrier in a Canuck Mark 4 prototype. A mockup of a swept wing CF-103 designed for this purpose was quietly discarded.	The Dream Lives On by Bill Zuk / Januz Zurakowski
1953	3	1	Canuck	Government estimates development cost of the Canuck at \$71 million and \$73 million for the Orenda turbojet engine.	Aircraft & Airport, March 1953
1953	4	1	Canuck	Formation of first Canadian CF-100 squadron at North Bay.	Aircraft & Airport, May 1953
1953	6	12	Canuck	test involving the firing rockets from wingtip pods goes wrong when rocket strikes the aircraft's aileron another smashed the nose of an accompanying aircraft	Canadair Heritage Calendar
1953	7	1	Canuck	CF-100 MK4, powered by two Orenda 9 engines declared the world's heaviest armed fighter.	Aircraft, September 1953
1953	7	21	Canuck	RCAF trainee pilot crashes CF-100 on takeoff on his first flight when he lifted off too soon and stalled.	Aircraft, September 1953
1953	7	30	Canuck	RCAF trainee pilot ejected from CF-100 aircraft experiencing undetermined difficulties.	Aircraft, September 1953
1953	8	1	Canuck	Avro President Crawford Gordon announces the completion of the 70 Canuck MK3 aircraft as being ahead of schedule. Peak production of the rocket carrying MK 4 to be achieved by early 1954.	Aircraft. August 1953
1953	8	11	Canuck	RCAF CF-100 crashes shortly after takeoff killing 11 when an engine quit and the pilot inadvertently shut off the good engine while attempting to restart the out engine.	Aircraft, September 1953
1953	12	16	Canuck	Associate Defense Minister Ralph Campney, in a report to the House of Commons: Canuck involved in 37 accidents, thirteen persons killed, seven being civilians.	Aircraft, January 1954
1954	5	13	Canuck	while testing T160 cannons on the CF-100t, the pilot noticed a hole appear in his engine cowl - he had caught up with his own bullet and shot himself	Canadian Heritage Calendar
1954	8	15	Canuck	The start of Operation Prairie Pacific cross-country air pageant.	Canucks Unlimited by Bob Baglow



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1955	7	1	Canuck	Defense Minister Campney to the House of Commons: "The RCAF's 10 auxiliary squadrons, won't, as planned, be equipped with CF-100 all weather fighters. It being found that complex modern interceptors of the latest types are not wholly suitable for auxiliary squadron service."	Aircraft, July 1955
1955	8	12	Canuck	Canuck crew survives ejection at 230 feet and 250 knots.	Canucks Unlimited by Bob Baglow
1955	9	15	Canuck	Zurakowski flew the Canuck at the Farnborough Airshow. On takeoff, Zura rolls inverted over the runway before retracting the landing gear.	The Dream Lives On by Bill Zuk / Januz Zurakowski
1955	10	0	Canuck	Defence Minister Campney announced that the Government does not intend to provide CF-100 aircraft for its ten homeland defence squadrons as they believe the aircraft are too complicated for part time auxiliary pilots	Aircraft Magazine
1955	10	0	Canuck	Avro Aircraft confirms that the Mark 4C model has substantially improved the performance of the CF-100 All-Weather Fighter	Aircraft Magazine
1955	10	12	Canuck	First flight of a CF-100 with high altitude wing extensions	Canadian Heritage Calendar
1955	10	12	Canuck	First flight of the Mark 5 Canuck (modified Mark 4)	The Dream Lives On by Bill Zuk / Januz Zurakowski
1956	5	0	Canuck	two Mk 5 aircraft lost wings - investigation showed over stressing due to manoeuvre and gust loads at low level in hot weather	Canadian Heritage Calendar
1956	8	16	Canuck	Avro Memo by J C Floyd VP Avro Engineering ....expresses his concerns re Avro's ability to meet the RCAF's specification and scheduling for CF-100 modification to MK 6.	Avro Museum RL 852-1956
1956	8	21	Canuck	Aug 21 - 27 National Film Board production "Air Defense Command".	Canucks Unlimited by Bob Baglow
1956	12	0	Canuck	500 new CF-100 aircraft delivered to the RCAF	Avro Canada C102 Jetliner - J C Floyd
1957	6	14	Canuck	Avro Memo by J C Floyd VP Avro Engineering outlines need to restrict speed and G manoeuvres on CF-100 MK 5 aircraft.	Avro Museum RL 852-1957
1957	12	20	Canuck	Belgian Airforce accepts 53 CF-100 aircraft as mutual aid from Washington	Canadian Heritage Calendar
1962	12	31	Canuck	Air Division CF-100 Squadrons disbanded to be replaced by CF-104.	Canucks Unlimited by Bob Baglow
1981	9	12	Canuck	CF-100 personnel and fans gather at North Bay to join in nostalgic last rites and honor the 30 year service of the aircraft they had come to affectionly know as the 'Clunk' and 'Led Sled'	Canadian Aviation Magazine 1981
1982	6	28	Canuck	Last flight of a CF-100 Canuck at St. Hubert, Quebec	
19556	6	0	Canuck	160 new CF-100 aircraft delivered to the RCAF	Avro Canada C102 Jetliner - J C Floyd
1951	5	1	Cold War	Russian Sabre appears in Canadian aeronautical trade magazine.	Aircraft & Airport, May 1951
1951	7	0	Cold War	US production of military aircraft struggling with material supply shortages leads to introduction of 'Controlled Materials Plan'....John McCone, US Under Secretary for the Air Force - "...if we are to create airpower on the scale that the crisis demands, America must submit itself to a coherent and rational system of controls...foresees fewer automobiles, refrigerators, houses and luxuries for the American public - our menace is today, and not in some comfortable future year, action is required today...."	Flying Magazine
1951	8	1	Cold War	British RAF report that Russia will have an Air Force of 30,000 aircraft within another year.	Aircraft & Airport, August 1951

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1951	9	0	Cold War	Flying Magazine - 'Time is Running Out' by John Giles - "US Airforce inadequate in quantity or quality to meet the exacting requirement of a major war of the type anticipated .....the USSR has suddenly gone into production of long range, intercontinental bombers capable of carrying atomic bombs.."	Flying Magazine
1951	9	1	Cold War	Editorial "Financial Outcasts": Lamenting the lack of financing opportunities for the aviation industry - and an obvious prejudice against anything to do with aviation. "...loans from government agencies are another possibility, but not particularly desirable in an industry already subject to government regulation. Aviation in all its aspects is more vital to Canada now than at any other time in the industry's history."	Aircraft & Airport, September 1951
1951	9	13	Cold War	U.S. Department of Defense announces its first pilot less light bomber squadron of Matador B-61's (missiles) intended to carry nuclear warheads.	Aircraft & Airport, October 1951
1951	10	1	Cold War	Editorial "Review of Canada's Air Defenses": "-- readers will probably conclude from this review that the Air Force still has a long way to go before it becomes a reckonable factor in Western Defenses in any way but a training school for aircrew."	Aircraft & Airport, October 1951
1951	10	1	Cold War	Airpower is the most vital military factor in deterring the aggressor - and the most urgent factor in guarding against sudden defeat should a general war occur. Our present program does not include maintenance of a strategic bomber force - without our fighter force, the enemy bomber force could win the war during the initial stages of mobilization. Air Marshall Wilfred A. Curtis, Chief of Canadian Air Staff	Aircraft & Airport, October 1951
1951	11	1	Cold War	Editorial "Lessons in Economics": "The end product that we call an airplane is really an assemblage of thousands of individual products, each of which has to be invented, developed, adapted, tooled, and manufactured. This long and costly process represents a time cycle of 5-7 years.. This is no show that can be stopped and started at the snap of a finger... After the victory in Europe we shift off our aircraft production... Suddenly someone discovered Russia had an air force... where did they get it? ..they just didn't stop building the one they had, as we did..."	Aircraft & Airport, November 1951
1952	1	1	Cold War	RCAF Air commander C.L. Annis suggests the communists are using Korean air war theatre to train a reserve of fighter pilots.	Aircraft. August 1953
1952	3	1	Cold War	E.V. Ripplingille, Jr., Director of Aircraft Production speaking on the defense of North America. "The quantities of aircraft to be produced are small... We're really talking in terms of what are called "Educational Quantities". In terms of preparedness that talent and skill will be our most valuable asset..."	Aircraft & Airport, March 1952
1952	3	1	Cold War	C.D. Howe, Minister of Defense Production speaking on the defense of North America. "...we are strengthening our defenses not for war but for peace...but we must also make sure that we do not undermine our economic strength. We have encouraged resource development...this is one of the most significant contributions that Canada can make..."	Aircraft & Airport, March 1952
1952	7	19	Cold War	Canada and U.S. engage in Exercise 'Signpost' a joint exercise to test eastern North American defenses.	Aircraft & Airport, September 1952
1952	11	1	Cold War	U.S. Air Force Ground Observer Corps runs advertisement in conjunction with Lockheed Aircraft to recruit 300,000 volunteers to fill in low level radar gaps.	Aircraft & Airport, November 1952
1952	11	12	Cold War	First flight of the Russian Bear Bomber the Arrow would be challenged to protect against	
1952	12	1	Cold War	Canadair contracted supply 300-400 Sabres to the U.K. under a three way NATO aid scheme delivery over ten months.	Aircraft & Airport, December 1952
1952	12	1	Cold War	Minister of transport issues order-in-council to cancel the license of any pilot or radio operator who is, or has been, connected with any subversive organization.	Aircraft & Airport, December 1952

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1953	2	1	Cold War	Editorial The Secret of Security: C.D. Howe, contravening the usual national security limits, outlines Avro's complete production system publicly to the House of Commons. Defense Minister Claxton offers public insight into Canada's air strength by recounting number aircraft and hours flown. Aircraft editorial staff defines classified information as something that somebody of rank wants to announce in public before it can appear in print. Note: editorial reflects first mention of AVRO Canada's Saucer project and the McGill Fence - the first firing of a Canadian guided missile.	Aircraft, November 1953
1953	5	1	Cold War	Editorial - Where is our line of defense?: Retired RCAF Reserve officer, Wing Commander Richard Rohmer, DFC, criticizes Canada's air defenses as being ten squadrons of obsolete Vampire and Mustang aircraft and that Canada is exporting her new Sabres needed to back up the so-called radar screen. The time has gone when we can wait for promised production...we cannot defend ourselves with promises.	Aircraft & Airport, May 1953
1953	7	1	Cold War	'Tailwind', (3 day joint Canada U.S. exercise) was not a test of air defenses but an evaluation of equipment...Tailwind was an improvement over the previous year's Signpost. It proved the CF-100 to be eminently satisfactory.	Aircraft, October 1953
1953	10	1	Cold War	Canada completes construction of 12 Squadron force in NATO's European Theatre in advance of its home defense force. Even at maximum planned strength, Canada would be unable to stave off any sustained air attacks... Canada has consented to allow U.S. to have a significant number of fighter squadrons on Canadian soil. The only RCAF prairie squadrons fly WWII Mustangs.	Aircraft, October 1953
1953	10	1	Cold War	RCAF's civilian volunteer Ground Observer Corp numbers 13,200 manning 2200 observation posts.	Aircraft, October 1953
1953	10	1	Cold War	Defense Minister Brooke Claxton reported that the joint Canada - U.S. system of radar stations would be complete by year end although the cost is such that it is economically impossible to build enough of them. Civilian Ground Observer Corps have the vital task of spotting enemy aircraft slipping through the radar gaps.	Aircraft, October 1953
1954	4	8	Cold War	Canada and U.S. governments announce that Canada will build the "Mid Canada Line" radar system and together they will build an Distant Early Warning line across the most northerly part of North America.	Aircraft, November 1954
1954	5	1	Cold War	Defense Minister, Brooke Claxton - "...U.S. H and A bombs are a powerful deterrent to aggression...the ability to deliver the bombs is essential to their deterrent character...that ability must be protected...a new emphasis to the whole question of continental defense."	Aircraft, October 1954
1954	10	1	Cold War	RCAF Squadron Leader, A. R. Duston - "...Canada's Air Force is designed primarily for a defensive role...Canada is unable to support the immense production and maintenance burden of a large strategic (offensive) bombing force...the RAF and USAF are providing this vital element..."	Aircraft, October 1954
1955	2	21	Cold War	Plans were announced to construct the Distant Early Warning (DEW) Line across northern Canada.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1955	5	1	Cold War	U.S. Defense Department seeks Canadian approval to station fighter squadrons in Canada suggesting RCAF air defense plans are too modest and too late in execution.	Aircraft, May 1955

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1955	6	1	Cold War	"Guided Missiles for the Future" - H.R. Footitt: Defense Research Board's CARDE establishment is busy designing and developing a modest air-to-air missile, the Velvet Glove, to RCAF requirements. "No matter how complex they become, guided missiles are essentially stupid." (C.C. Furnas, Director of Cornell Aeronautical Laboratory) "...as missiles approach the peak of their development... the military airplane, as we know it now, will eventually be regulated to a mere logistical vehicle" (General D.L. Putt, former commander of US Air Research and Development) "At least some manned fighters will be with us for many years to come..." (Sir John Slesson, from his book "Strategy for the West") "The final reckoning in any future war will hinge heavily on a wide variety of specialized guided missiles" (RCAF Group Captain - H.R. Footitt) "The race for the most practical intercontinental vehicle is between the very high speed and altitude unmanned bomber and the still higher speed and altitude unmanned intercontinental ballistic missile" (Air Commodore, C.L. Annis, RCAF Air Defense Command)	Aircraft, June 1955
1955	6	1	Cold War	External Affairs Minister announced that the U.S. will pay the full cost of the Distant Early Warning (DEW) radar line in northern Canada (\$700 million)	Aircraft, June 1955
1955	6	1	Cold War	"Guided Missiles for the Future" - Group Captain N.R. Footitt: "The whole missile picture has been clouded by exaggerated time scales and misleading publicity pushed out by proponents of "push-button" war. Even our own missile (Velvet Glove) like all others, has its limitations.	Aircraft, June 1955
1957	8	27	Cold War	Russians launch an I.C.B.M. (Inter-Continental Ballistic Missile)	Fall of An Arrow by Murray Peden
1957	10	4	Cold War	Russia's launch of 184 pound Sputnik satellite raises concern over Russia's rocket engine capability if applied to ICBM's (Inter Continental Ballistic Missiles). Russia had become the first world power - a fact not lost on American and Canadian politicians.	Fall of An Arrow by Murray Peden
1957	11	0	Cold War	Canada & US plan for Prince Albert facility to investigate countering ICBM missiles launched 3000 miles away when current radar range only 400 miles	Aircraft Magazine
1957	11	0	Cold War	Defence Minister Pearkes explains that the new NORAD air defence command would be expected to consult with the Canadian Government by phone before taking action	Aircraft Magazine
1958	1	31	Cold War	US Army 70 foot Jupiter C rocket successfully launched the first 18.13 pound Explorer satellite into orbit. There are now three US satellites and one Russian Sputnik orbiting earth.	Aircraft Magazine - April 1958
1958	6	15	Cold War	The third Soviet satellite weighing 2,925.5 pounds goes into space.	Aircraft Magazine - June 1958
1958	8	21	Cold War	Government Letter by Lt-Gen H D Graham Chief of General Staff to Canadian Chiefs of Staff - "...I think it is wrong to leave the impression with the Minister (Defence) and the Government that our air defence plans is primarily for the defence of Canadian territory when, in fact, any defence of Canadian territory is but a by-product or extra dividend to the main purpose, which is the defence of SAC bases and the northeastern United States....."	Avro Museum RL 853-1958/08
1960	7	15	Cold War	Cabinet concludes that the CF-100 was incapable of policing Canadian skies against intrusions from aircraft similar to the U-2.	Storms of Controversy, by Palmiro Campagna - 1992
1961	1	0	Cold War	John Gellner, RCAF Wing Commander (retired) - "...the Sabre VI and CF-100 are obsolete, they are patently incapable of intercepting the more modern of the Soviet fighter-bombers..."	Canadian Aviation Magazine
1962	0	0	Cold War	An inter-governmental agree with the US in 1961 sees Canada assume control of 26 of 32 Pine Tree Radar Stations on Canadian soil in 1962 (deal for F-101's?)	Wings & Space Magazine
1978	6	19	Cold War	US Defense Intelligence Agency announces Russia's development of a new nuclear bomber expected to be operational in the early 1980's.	Fall of An Arrow by Murray Peden

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1990	6	13	Cold War	The Berlin wall was destroyed - marking the end of the East-West cold war.	
2007	9	21	Cold War	historian uncovers 1964 Soviet Pact war plans to use 131 tactical nuclear missiles and bombs to sideline NATO forces in response to an 'imperialist strike'	Calgary Herald Newspaper
1945	12	0	Jetliner	Jim Bain, Trans Canada Airline Superintendent of Engineering when presented with an Avro Canada proposal for a four engine turbo prop transport design, insisted TCA was now only interested in a twin engine jet design using the new Rolls Royce AJ65 engines (then a secret military power plant not yet available)	
1946	3	5	Jetliner	Fred Smye of Avro sent TCA a letter detailing a 30 seat jet transport for TCA with Rolls Roysce AJ65 engines. "Avro's first proposal for a four engine turbo prop was rejected out of hand on the grounds the new aircraft must be pure jet" - Fred Smye.	Canadian Heritage Calendar
1946	3	27	Jetliner	Avro officials fly to TCA Winnipeg to present proposals to Jack Dymont for either a turbo-prop or turbo-jet transport - "...obvious from the outset of discussions that they were only interested in the twin engine jet..." - Jim Floyd	The Avro Canada C102 Jetliner - J C Floyd
1946	4	9	Jetliner	Letter of intent from TCA President Symington to Avro GM Smye for the purchase Jetliner outlined in Avro brochure with specific conditions - one condition being that Avro could not sell even a modified version of the aircraft to anyone else for a period of three years after acceptance by TCA	Canadian Heritage Calendar
1946	12	12	Jetliner	TCA Superintendent of Engineering Jim Bain insists the jet transport be powered by two Rolls Royce AJ65 engines not yet available	Canadian Heritage Calendar
1947	1	0	Jetliner	TCA President Syminton in response to an Avro Fred Smye request for a contractual quantity of aircraft be set or Avro could not guarantee the price - "...it might be better for all concerned if the project were abandoned..."	The Avro Canada C102 Jetliner - J C Floyd
1947	3	6	Jetliner	Walter Diesher of Avro in a letter to Symington TCA confirms a contractual agreement in which he priced the Jetliner at \$325,000 each on an order of 100 aircraft not including engines	Canadian Heritage Calendar
1947	3	12	Jetliner	Symington of TCA writes Minister C D Howe asking that TCA be released from its Jetliner purchase commitments with Avro	Canadian Heritage Calendar
1947	3	13	Jetliner	Upon receipt of TCA Syminton's letter, C D Howe told Avro's Smye and Diesher that all work on the Jetliner should be stopped as TCA was not prepared to buy the aircraft	Canadian Heritage Calendar
1947	3	15	Jetliner	C D Howe as Minister of Reconstruction and supply authorized \$1.5 for Jetliner development to proceed at a slower pace	Canadian Heritage Calendar
1947	4	0	Jetliner	Avro Canada advised by Rolls Royce that the AJ65 jet engines for the Jetliner would not be available for civil use for years - but they could supply less powerful Derwent V engines. These engines were also heavier, increasing the empty weight of the aircraft. They also used more fuel requiring more fuel tanks and again, more weight. Re-design of the aircraft involved more fuel capacity, a new wing center section, new engine nacelles and new engine controls.	The Avro Canada C102 Jetliner - J C Floyd
1947	5	0	Jetliner	A. V. Roe Canada announces that it is to produce a new twin engine jet passenger plane	Canadian Aviation Magazine
1947	5	0	Jetliner	Trans Canada Airlines announces its new 36 passenger, four engine propped North Star for intercontinental trans-atlantic routes	Canadian Aviation Magazine
1947	10	29	Jetliner	first meeting of TCA's new C102 Special Committee	Avro Canada C102 Jetliner - J C Floyd
1947	12	0	Jetliner	AV Roe, uable to obtain Rolls Royce J65 engines, announces Jetliner change to four Rolls-Royce Derwent Mark V jet engines - the aircraft will be a 40 passenger, 400 mph airliner with a 1200 mile range	Canadian Aviation Magazine

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1948	2	25	Jetliner	TCA Committee issued report to the effect that the C102 was not suitable for TCA routes without major design revisions, that AVRO felt would cause them to start over.	Avro Canada C102 Jetliner by Jim Floyd
1948	2	25	Jetliner	Trans Canada Airlines (TCA) report said Jetliner not suitable for a number of reasons but lack of fuel reserve given as major cause - "...for a flight of 364 miles that would consume 9,400 lbs of fuel, TCA required additional fuel reserves of 20,400 lbs making a fuel total fuel load of almost 30,000 lbs on this short flight - such fuel reserves were never used on any civil jet aircraft operated by TCA or anyone else...While TCA credited the Jetliner with a range of just 300 miles, Trans World Airlines, using their accepted fuel allowances gave the same Jetliner a range of 940 miles..."	Fred Smye Memoirs
1948	2	25	Jetliner	TCA C102 Committee report concludes that the Jetliner is not suitable for TCA routes - one reason being that "the Government's installation of Instrument landing systems at airports was dissapointly slow"	Avro Canada C102 Jetliner - J C Floyd
1948	3	2	Jetliner	Controversy over TCA Jetliner report -	Canadian Heritage Calendar
1948	4	19	Jetliner	New TCA President, Gordon McGregor, advised Avro that Minister C.D. Howe asked TCA to act as "neutral" engineering advisor on C102 project.	Avro Canada C102 Jetliner by Jim Floyd
1948	4	19	Jetliner	New TCA President, Gordon McGregor indicated he would not in any case want TCA to be the first airline in North America to operate a jet transport.	Avro Canada C102 Jetliner by Jim Floyd
1949	1	0	Jetliner	Avro Jetliner reaches final assembly stage...Avro denies an American media report that Trans Canada Airlines (TCA) has ordered a number of the aircraft saying no attempts will be made to secure orders until flight trials of the prototype are made	Canadian Aviation Magazine
1949	1	1	Jetliner	TCA's new North Star aircraft require 300 modifications...it was to the Airline's economic advantage not to ask the Canadair to make the changes because of the high cost of altering the plans. ...time has not permitted the ironing out of all the little defects that became apparent with the manufacture of the prototype of each new model of airplane. As long as these defects did not affect safety, the airlines accepted the airplanes.	Aircraft & Airport, January 1949
1949	5	2	Jetliner	Trans Canada Airlines - letter from J T Bain, TCA Director Engineering to W F English TCA VP Operations - "...a physical examination of the aircraft showed a quality of workmanship which I have never seen surpassed on a prototype aircraft nor indeed by many production aircraft....metal work is beautiful and far surpasses the quality achieved by Canadair in production North Stars.....design shows enough care and foresight to make the C-102 a really modern aircraft...."	Palmiro Campagna - researcher / author
1949	6	24	Jetliner	First run of the Jetliner engines	Avro Canada C102 Jetliner by Jim Floyd
1949	7	1	Jetliner	A month before the Avro Jetliner first flies, Shell Aviation suggests inadequate airport traffic controls make economic operation of jet transport aircraft an impossibility.	Aircraft & Airport, July 1949
1949	7	23	Jetliner	With the main runway closed for service work, the Jetliner's taxi trials a short runway resulted in many delays from burst tires caused by overheated brakes	Canadian Heritage Calendar
1949	7	27	Jetliner	British de Havilland Comet transport completed airborne hop on length of runway. (Twenty Comets would crash in service between 1952 and 1971 )	Avro Canada C102 Jetliner by Jim Floyd
1949	8	1	Jetliner	The Avro Jetliner and DeHavilland Comet compliment each other (the jetliner for short routes - the Comet for long routes)...together they represent the first clean-cut step in the design of modern jet air transport since the first of the Douglas DC series of propped aircraft. "A World Beater" - the DeHavilland Comet	Aircraft & Airport, August 1949



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1949	8	10	Jetliner	Avro Jetliner flies for the first time and becomes the first jet transport to fly in North America - eight years before the first US Boeing 707	Storms of Controversy, by Palmiro Campagna - 1992
1949	9	20	Jetliner	Third flight damage of Jetliner following main gear failure that resulted in belly landing with minimal damage.	Avro Canada C102 Jetliner by Jim Floyd
1949	10	0	Jetliner	'Avro Jetliner Sets New Standard' - custom built to fit short and medium routes on the Trans Canada Airline doemestic main line.....while TCA has made no commitment, the airline was consulted and in fact, wrote the specification which Avro developed	Canadian Aviation Magazine
1949	10	0	Jetliner	Avro trade advertisement for the Jetliner - "... when news of the success of the first Jetliner flight brok, Canada was catapulted into a lead position among air minded countries. The Jetliner is the first commercial aircraft to fly in North America....'	Canadian Aviation Magazine
1949	10	1	Jetliner	Flying the C-102 - Jim Orell - Avro Chief Test Pilot. "...the jetliner has demonstrated such promising qualities that even at this stage of the test program, the indications are that the aircraft will reach and likely even surpass its design aims with little difficulty."	Aircraft & Airport, October 1949
1949	10	1	Jetliner	"...it is not so much a question of whether or not, but rather when." in talking about the introduction of turbojet aircraft E.H. Atkin Chief Designer, Avro Canada	Aircraft & Airport, November 1949
1949	10	4	Jetliner	Jetliner demonstrated for Government, military and the press - C D Howe makes complimentary statement..."I am sure I speak for all those present when I wish every success to the C102 (Jetliner) and its manufacturer, A.V. Roe Canada/" for Canadian	Canadian Heritage Calendar
1949	10	4	Jetliner	Official public appearance of C-102 AVRO Jetliner forty years to the day after the Wright Brothers made their first flight.	Aircraft & Airport, October 1949
1949	10	22	Jetliner	Avro "Gala Day" celebration for the benefit of all AVRO employees and families.	Avro Canada C102 Jetliner by Jim Floyd
1949	10	22	Jetliner	Jetliner exceeds a true airspeed of 500 mph - test: should be complete by the middle of 1950 and Avro expects that Jetliners will be flying commercial routes in 1952.	Aircraft & Airport, January 1950
1949	11	0	Jetliner	Canadian Aviation Magazine Editorial ..."....Canada is most fortunate to up in front with the first pure jet domestic airliner in the world....there is no doubt that the success of this Avro project calls for rousing cheers...."	Canadian Aviation
1949	11	1	Jetliner	Jetliner's first flight test to 30,000 feet	Canadian Heritage Calendar
1949	11	22	Jetliner	Jetliner flew at over 500 miles per hour on test flight at 30,000 feet altitude, qualifying it to cruise at 465 miles per hour in service. However it could not be tested by interested airlines until certified by the Canadian Department of Transport.	Avro Canada C102 Jetliner by Jim Floyd
1949	12	0	Jetliner	The Jetliner flight testing approaches 30 hours while top speed appears better than design expectation some modification may be made to increase the aircraft's range	Canadian Aviation Magazine
1949	12	1	Jetliner	Australian Government express interest in Avro Jetliner, asking that it undergo three months of route trials following the show in Britain in September 1950.	Aircraft & Airport, December 1949
1950	1	1	Jetliner	G.T. Baker, President of American Airlines announced interest in AVRO Jetliner, saying elimination of propellers was an important forward step.	Aircraft & Airport, December 1950
1950	1	1	Jetliner	British European Airways expressed interest in the Avro Jetliner.	Aircraft & Airport, November 1950
1950	1	10	Jetliner	Avro designer, Jim Floyd gave a paper on the Jetliner to the Society of Automotive Engineers in Detroit USA which was preparing a specification for jet transport operation in 1955.	Avro Canada C102 Jetliner by Jim Floyd
1950	2	0	Jetliner	'Test Flying Jet Planes a Problem of Percision' - Canadian Dept of Transport test pilot publishes in depth, two part article: ....	Canadian Aviation Magazine

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1950	2	0	Jetliner	'Progress Report - Avro Jetliner' - increased tankage will give the aircraft a range of 1200 miles with a payload of over 10,000 lbs	Canadian Aviation Magazine
1950	2	0	Jetliner	Avro Assistant General Manager Fred Smye commenting on the Jetliner says "this year will be devoted to extensive flight tests, construction of a second aircraft and a concentrated sales effort"	Canadian Aviation Magazine
1950	3	10	Jetliner	Jetliner flown to Ottawa for demonstration for Government officials - flight time Toronto to Ottawa - 36 minutes	Canadian Heritage Calendar
1950	3	10	Jetliner	The Jetliner flew from Malton (Toronto) to Rockcliffe to do a demonstration. Flight time was 36 minutes, compared to public airline service of 1 hour 40 minutes.	Avro Canada C102 Jetliner by Jim Floyd
1950	3	28	Jetliner	AVRO's Fred Smye re-approached TCA, offering some form of free trial. TCA President McGregor demanded that Avro prove the Jetliner was "theoretically eligible for consideration". (Source - 1956 TCA report by W.H. Bird)	Avro Canada C102 Jetliner by Jim Floyd
1950	4	5	Jetliner	Department of Transport report by Des Murphy: "It is believed that most pilots flying the airplane (Jetliner) in its present stage of development would be agreeably impressed with its general handling and performance.....aircraft was a very docile airplane with no vices"	Avro Canada C102 Jetliner by Jim Floyd
1950	4	15	Jetliner	authority given for the Jetliner to carry non-paying passengers - must carry a sign at the door saying the aircraft is not certified to carry passengers - every passenger to sign a waiver	Canadian Heritage Calendar
1950	4	18	Jetliner	Jetliner flown to New York with TCA President McGregor as first non-paying passenger - aircraft carried 15,000 letters marked "world's first jetmail"	Canadian Heritage Calendar
1950	4	18	Jetliner	Air Trails Magazine - "...Most Americans believe that their nation has the greatest aviation industry in the world ....how then could first honors gor a jet-powered transport go to the Canadians....United States designers had not passed the doodling stage when the Jetliner appeared. Our hat's off to the Canadians..."	Avro Museum
1950	4	19	Jetliner	Jetliner New York demonstration for the press reported in over 500 newspapers - aircraft demonstrated again the following day at the New York S.A.E. Airshow	Canadian Heritage Calendar
1950	4	20	Jetliner	Jetliner scheduled to appear at Society of Automotive Engineers meeting in New York, by which time AVRO officials hope the aircraft will have been certified. In September, the Jetliner is to be flown to Britain for the Farnborough Show, a possible tour of Europe and perhaps on to Australia for trials.	Aircraft & Airport, April 1950
1950	4	24	Jetliner	Dan Beard, American Airlines after a test flight - "you have a good aircraft there, I reckon it could be the DC-3 of the jet era	Canadian Heritage Calendar
1950	4	26	Jetliner	TCA officials and test pilot flew in Jetliner prior to meeting to determine a test program as per the Symington-Smye agreement	Canadian Heritage Calendar
1950	5	6	Jetliner	TCA demands so much analytical data the Jetliner's proposed demonstration at the Farnborough, England airshow had to be cancelled.	Avro Canada C102 Jetliner by Jim Floyd
1950	6	2	Jetliner	to the surprise of everyone aboard, the Jetliner with Gordon Wheeler of Dunlop aboard, rolls over in a gross weight 'dirty' stall flight test	Canadian Heritage Calendar
1950	6	18	Jetliner	Following a contract proposal by Avro and testing by National Airlines personnel, National's president ,G T Baker, commented: "I send two of my most conservative up to Canada for a couple of days to look at the Jetliner and they come back stark raving mad with enthusiasm for it."	Avro Canada C102 Jetliner by Jim Floyd

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1950	6	26	Jetliner	Canadian Air Transport Board Report - Comparative Cost Analysis of the Triangular Route Toronto - New York - Montreal When using Avro Jetliner, or Canadian North Star Aircraft - "...In comparison with such aircraft the Jetliner might still be more attractive however if all factors are taken into consideration, since increased revenues are expected to result from the improved standards of comfort and speed that the Jetliner offers..."	Palmiro Campagna - researcher / author
1950	7	0	Jetliner	Airlines Magazine quotes TCA President McGregor experience as a passenger on the Jetliner flight to New York - "...Once in full flight, the remarkable advantages of jet power became evident. There was complete freedom from vibration...the nose level was astonishingly low .... Although we encountered moderate turbulence, the high speed seemed to reduce the effect and there was a noticeable absence of tail buffeting..."	Avro Canada C102 Jetliner - J C Floyd
1950	7	0	Jetliner	Avro looks to using British Rolls Royce Nene engines in the second prototype 60 passenger Jetliner under construction but designing with the option of using American engines if demanded by US airlines.	Avro Canada C102 Jetliner - J C Floyd
1950	7	19	Jetliner	Avro Sales Manager reported on meeting with National Airlines - "Mr. Baker very much interested -- coming to West Coast on weekend of 15 (Aug) and a proposed contract for purchase of Jetliners would be drawn up to submittal to Avro."	Avro Canada C102 Jetliner by Jim Floyd
1950	8	1	Jetliner	Jetliner Progress - Jetliner completes demonstration flights to New York, Ottawa, and Montreal. G.R. McGregor, President of TCA was on board.	Aircraft & Airport, August 1950
1950	8	1	Jetliner	AVRO Jetliner completes 100 hrs of flight testing "with remarkably little trouble."	Aircraft & Airport, August 1950
1950	8	11	Jetliner	National Airlines' Vice President of Engineering and Planning wrote Admiral Pride of the US Navy asking for co-operation with Avro in discussing performance of Pratt & Whitney and Westinghouse engines for the US version of the Jetliner. (Avro wrote General Electric and Allison about the possibility of using their J47 or J33 engines.) .... Note: Second prototype under construction was adjusted for US airlines. I.E. Longer range and 50 passenger rather than the 30 TCA specified.	Avro Canada C102 Jetliner by Jim Floyd
1950	9	5	Jetliner	Under pressure from C.D. Howe and Avro to take the Jetliner for route assessment TCA wrote listing "questionable items" and concern that the Derwent-powered prototype might not be representative of the more powerful production aircraft to come.	Avro Canada C102 Jetliner by Jim Floyd
1950	9	5	Jetliner	TCA's Jack Dyment in a letter to Avro's Atkin outlining questionable items on the Jetliner prototype that should be put right (TCA demand for huge fuel reserve would now make it necessary to jettison fuel should an emergency landing be required)	Avro Canada C102 Jetliner - J C Floyd
1950	9	13	Jetliner	Avro and TCA met only to come to the conclusion it would be impossible to reconcile differences on how to properly evaluate the Jetliner on TCA routes.	Avro Canada C102 Jetliner by Jim Floyd
1950	9	13	Jetliner	With Government pressure on Avro to produce the CF-100 and limited effort available to the Jetliner, Avro officials met with TCA regarding the upgrades demanded by TCA but conclude the extra work would delay prototype testing and development.	Avro Canada C102 Jetliner - J C Floyd
1950	9	20	Jetliner	National Airlines, having signed a contract for four Jetliners with an option for six more, requested detail of revisions for the prototype.	Avro Canada C102 Jetliner by Jim Floyd
1950	10	0	Jetliner	Avro US Sales Manager, Dixon Speas report to management - "...Department of Transport requirements making passengers of the airplane (Jetliner) sign releases and posting little notices in the airplane to the effect that the aircraft has not yet been licenced by the DOT can only be classified as trifling exhibitions of officious nature...They should be told that it is their responsibility to do everything possible to aid the Jetliner program....."	Avro Canada C102 Jetliner - J C Floyd

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1950	10	1	Jetliner	Avro's Fred Smye in a letter to TCA President McGregor advise that Avro would not offer the Jeliner for route trials and would instead use the aircraft for Avro's own development purposes - TCA's criticisms of the Jetliner and Avro became increasingly negative and began to influence Avro's relationships with government agencies. "It appeared that Avro did not have a single friend in government...." - Jim Floyd	Avro Canada C102 Jetliner - J C Floyd
1950	10	19	Jetliner	Jetliner underwent demonstration flights for 24 United Airlines executives, but suffered damage to one engine. It is flown back to Malton without incident on three engines.	Avro Canada C102 Jetliner by Jim Floyd
1950	11	1	Jetliner	AVRO (Fred Smye) wrote in a letter to TCA (McGregor): "This is but a brief note to confirm our conversation of this afternoon to the effect that we (Avro) will indefinitely delay turning over the first prototype Jetliner to your company for trials." Note: Ongoing negative comment by TCA soured the perspective of other departments of government and the Canadian Department of Transportation became overly cautious as they now bore the responsibility for certifying the aircraft without the support of TCA. Avro looked to US markets.	Avro Canada C102 Jetliner by Jim Floyd
1951	0	0	Jetliner	Avro's airline sales and research revealed the larger second Jetliner prototype design would be suitable for 71% of National's routes, 56% of United's, 86% of Swissair's, 50% of Capital's and 57% of KLM's routes in Europe.	Avro Canada C102 Jetliner - J C Floyd
1951	1	0	Jetliner	Rochester Democrat & Chronicle - "...The Canadian Jetliner's feats accelerate a process already begun in this nationn (US) - a realization that Uncle Sam has no monopoly on genius...."	Avro Museum
1951	1	0	Jetliner	Despite Avro's success in marketing the Jetliner to US and European airlines, C D Howe ordered Avro to close down the Jetliner project "until you are back on schedule with the CF-100"	Avro Canada C102 Jetliner - J C Floyd
1951	1	5	Jetliner	letter by Ray Kelly, Supt Technical Development, United Airlines to Allison Engine Division - "....United Airlines considers the subject Jetliner as a very likely first step towards the proper application fo jet transports to commercial aviation...." -	Avro Canada C102 Jetliner - J C Floyd
1951	1	5	Jetliner	C D Howe pressures Avro to stop promoting the Jetliner as a commercial transport	Canadian Heritage Calendar
1951	1	5	Jetliner	United Airlines in letter to Allison Engines outlined a proposal to test the Jetliner with assistance of "Prototype". A bill was passed by the US Congress to promote development of new types of equipment.	Avro Canada C102 Jetliner by Jim Floyd
1951	1	12	Jetliner	Rochester Democrat & Chronicle: "A commercial jet airliner, built in Canada has smashed all American speed records for aircraft of that type	Avro Canada C102 Jetliner by Jim Floyd
1951	1	16	Jetliner	Letter from A.T. Cowely, Dept of Transport to J R Baldwin Chairman of Air Transport Board....he tells of "all embracing restrictions' on the Jetliner from carrying passengers or commercial freight	Canadian Heritage Calendar
1951	1	22	Jetliner	Jetliner demonstration flight to Tampa and Miami for National Airlines - Captain Edwards of Trans Canada Airlines acted as co-pilot....aircraft broke records for airspeed, ground speed, altitude and rate of climb....Ted Baker, President of National Airlines prepared to buy four Jetliners with an option for six more	Canadian Heritage Calendar
1951	1	27	Jetliner	Letter - from A. T. Cowely, Director of Air Service to J. R, Baldwin, Chairman, Air Transport Board - ".... May I advise that we have laid down all-embraceive restrictions on the use to be made of the Jetliner prototype...' ( a large "Experimental" sign had to be painted on the entrance door and all passengers were required to sign a responsibility waiver and be provided with a parachute) "...I do not feel that we should offically give permission for Avro to carry any load"	Canadian Heritage Calendar

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1951	1	28	Jetliner	St. John, New Brunswick Evening Times Globe: "perhaps we do not yet fully appreciate, in Canada, what a spectacular innovation the Jetliner has become on the international aviation scene, nor the widespread attention it's attracting."	Avro Canada C102 Jetliner by Jim Floyd
1951	2	5	Jetliner	Avro President Fred Smye issues a corporate directive to discontinue ....the promotion of the Jetliner as a commercial transport...any work on the second prototype...and only promote sale of the aircraft as a military type with minimum modification of the basic first aircraft	Avro Canada C102 Jetliner - J C Floyd
1951	2	5	Jetliner	Avro (Fred Smye), on orders of Minister C.D. Howe issued a stop work order on the Jetliner project, to preserve the contract to produce 720 Canucks at a rate of 25 per month. Avro advised National Airlines the deal was off with the hope that Avro might reopen negotiations at a future date. ... Note: C.D. Howe, in response to Dixon Speas, Sales Manager for Avro: "...Avro has too much on their plate in trying to do both the fighter program (Canuck) and the Jetliner program. We are committed to the fighter program and the Jetliner must go on the shelf."	Avro Canada C102 Jetliner by Jim Floyd
1951	3	6	Jetliner	Jetliner delivered to US Wright Field for military evaluation and subjected to tests more applicable to fighters and bombers - Jim Floyd	Avro Canada C102 Jetliner - J C Floyd
1951	3	6	Jetliner	US military at Wright Airforce base evaluate Jetliner for six days - favourable report as a pilot and bombardier trainer!	Canadian Heritage Calendar
1951	3	6	Jetliner	Jetliner delivered to Wright Patterson Air force Base in Dayton, Ohio for six days of evaluation, then to Allison Engines in Indianapolis, and finally to Washington for demonstrations for US Navy, Army and government personnel.	Avro Canada C102 Jetliner by Jim Floyd
1951	3	9	Jetliner	Jetliner demonstration flight to Indianapolis for Allison Corp and then to Washington for the US military	Canadian Heritage Calendar
1951	4	14	Jetliner	Jetliner began de-icing trials and went on to make 22 flights in March, 10 in April, 13 in May, 9 in June, and 21 in July - bringing the total flying hours logged close to 300.	Avro Canada C102 Jetliner by Jim Floyd
1951	4	15	Jetliner	With Canuck production slipping, the second Canuck prototype crashed killing the pilot and engineering observer, Avro shifted Jetliner staff to Canuck production	Avro Canada C102 Jetliner by Jim Floyd
1951	5	1	Jetliner	TCA announces it is thoroughly conversant with current developments in the field of aircraft propulsion, "...few, if any, manufacturers are able to provide such comprehensive information..."	Aircraft & Airport, May 1951
1951	6	0	Jetliner	Avro Jetliner first civilian aircraft to be fitted with Goodyear heated anti-icing units on the leading edge of all flight surfaces	Aircraft Magazine
1951	6	5	Jetliner	Wright Air Development recommended the Jetliner as a trainer and tanker for in-flight refueling for jet fighter aircraft. Note: Avro Management advised that minimal revisions required for military applications is all that is permitted.	Avro Canada C102 Jetliner by Jim Floyd
1951	6	5	Jetliner	Word in the industry is that USAF has set aside 20 Million dollars for 20 Jetliners and is shopping for US built engines for them.	Avro Canada C102 Jetliner by Jim Floyd
1951	6	5	Jetliner	National Airlines President, Ted Baker in a letter to Avro Sales - "We haven't lost interest in the Avro Jetliner and hope that one of these days you will be in a position to take orders and make deliveries."	Avro Canada C102 Jetliner by Jim Floyd
1951	6	5	Jetliner	US Wright Air Development report suggests Jetliner a possible training aircraft for their pilots and bombardiers - its also thought it might be useful as a refueling tanker for their fighters	Avro Canada C102 Jetliner - J C Floyd
1951	6	15	Jetliner	Avro Sales Manager Dixon Speas learns thru Allison Motors that the US Airforce was going to buy twenty Jetliners and had put aside \$20 million in the next year's budget	Avro Canada C102 Jetliner - J C Floyd

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1951	7	0	Jetliner	Avro's Chief Design Engineer - Transports submits lengthy corporate summary of Jetliner project - "...If due to the International situation and the inability of the company to produce the aircraft, the project has to be abandoned, then we should know now and not continue to flog a dead horse until the morale of the people concerned with project has caused them to seek more stabilized work elsewhere."	Avro Canada C102 Jetliner - J C Floyd
1951	7	1	Jetliner	Minister of Defense, C.D. Howe announces termination of Jetliner project. Avro considered continuing it because of possibility of USAF ordering a number for military purposes.	Aircraft & Airport, July 1951
1951	8	1	Jetliner	G.T. Baker, President of National Airlines reported to have said that if the Avro Jetliner were in production, his company would buy at least ten.	Aircraft & Airport, August 1951
1951	11	0	Jetliner	Avro Sales Manager for the US resigned out frustration with the government cancellation of the Jetliner and the US office closed	Avro Canada C102 Jetliner - J C Floyd
1951	11	12	Jetliner	C D Howe sent letter to Avro President Crawford Gordon closing down the Jetliner project completely despite US Airforce interest in 20 Jetliners..."I am determined that the full resources of your company be devoted to the all important problems of getting actual production from the investment that has been made in this (CF-100) program)	Avro Canada C102 Jetliner - J C Floyd
1951	11	29	Jetliner	Editorial - G.J. McIlraith, parliamentary assistant to the Minister of Trade and Commerce (Hansard) - (The governments reasons for purchasing the Comets after spending \$6.5 million with Avro Canada to develop a prototype jet transport (Jetliner) which flew within days of the Comet. "The Avro Jetliner is a prototype and could not be put into service until it has been further developed. (Canadian government (C.D. Howe) sidelined development of the Jetliner despite RCAF requirement for military jet transport.)	Aircraft & Airport, January 1952
1952	1	23	Jetliner	in discussion with Avro, Howard Hughes asks that provide the Jetliner as research vehicle for MG2 fire control system for CF-100	Canadian Heritage Calendar
1952	2	16	Jetliner	Vickers brings its new Viscount for winter trials TCA puts personnel on board as advisors.	Aircraft & Airport, February 1953
1952	4	2	Jetliner	Jetliner sent to Hughes Airfield for modification for monitoring the tests of the Hughes MG2 fire control system destined for the Mark 4 Canuck. Avro hoped the Jetliner's presence would come to the attention of Howard Hughes and his TWA Airlines.	Avro Canada C102 Jetliner by Jim Floyd
1952	4	7	Jetliner	Jetliner flown to Denver Colorado in preparation of demonstration for Howard Hughes	Canadian Heritage Calendar
1952	4	8	Jetliner	Jetliner flown to Howard Hughes private airstrip at Culver city to be modified for testing the MG2 fire control system - aircraft remained there unmodified for six months as Hughe's personal transport	Canadian Heritage Calendar
1952	4	9	Jetliner	Hughes flew the Jetliner and asked to keep it awhile to further evaluate it - if found suitable he would have it built under license by Convair in the US. A tentative specification was written for a TWA Jetliner for the New York - Chicago route.	Avro Canada C102 Jetliner by Jim Floyd
1952	4	24	Jetliner	Avro met with TWA at their Kansas City headquarters to discuss the TWA jet aircraft.	Avro Canada C102 Jetliner by Jim Floyd
1952	5	1	Jetliner	TCA operating 23 North Stars, 27 DC-3's, and placed orders for 5 Lockheed Super Constellations.	Aircraft & Airport, May 1952
1952	5	4	Jetliner	Howard Hughes refuses to give up Jetliner to allow engineers to fit CF-100 fire control system - has aircraft moved to remote corner of field and placed under constant security	Canadian Heritage Calendar
1952	5	5	Jetliner	Avro, following discussions with Howard Hughes and TWA officials issued a summary report on using the Jetliner on TWA Chicago-New York and Chicago-Kansas City routes - Huges contacted Convair and asked them to prepare to manufacture the Jetliner	Avro Canada C102 Jetliner - J C Floyd



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1952	5	5	Jetliner	Favorable report led Hughes to contact Convair regarding manufacturing the Jetliner.	Avro Canada C102 Jetliner by Jim Floyd
1952	5	16	Jetliner	Avro responded to Hughes request for more information.	Avro Canada C102 Jetliner by Jim Floyd
1952	5	16	Jetliner	Avro Jetliner designer James Floyd forwarded additional performance information to Howard Huges on the Jetliner	Avro Canada C102 Jetliner - J C Floyd
1952	8	6	Jetliner	Convair issued a report on manufacturing 20 to 50 Jetliners and if given the go ahead by November 1 the first aircraft could be delivered to TWA by May 1954. US authorities reject the Convair plan because of Convair's military commitment. Note: Hughes proposal for Avro to build the first 30 aircraft for TWA with Hughes' financing infuriated C D Howe.	Avro Canada C102 Jetliner by Jim Floyd
1952	8	6	Jetliner	Convair issued a plan for manufacturing the Jetliner - with approval by Nov 1 they thought the first aircraft could be delivered to TWA by May 1954 - (the US government turned the plan down citing Convair's military commitments) Hughes asked that Avro build the aircraft in Canada financed by TWA	Avro Canada C102 Jetliner - J C Floyd
1952	9	29	Jetliner	Howard Hughes released Jetliner and it was flown back to Toronto via Denver and Chicago	Canadian Heritage Calendar
1952	10	1	Jetliner	Editorial recounts the growing number of assertions by North American airlines and manufacturers of piston engine transport aircraft that jet aircraft are still highly experimental and might be operational by 1958 when U.S. manufacturers have developed them to a practical point.	Aircraft & Airport, October 1952
1952	10	1	Jetliner	Boeing Aircraft announces its new DC-8 transport will fly in the summer of 1954.	Aircraft & Airport, October 1952
1952	11	14	Jetliner	Upon hearing a rumour of the Jetliner proposa by Hughes, a furious Minister C D Howe wrote Avro's President Gordon - "...the C102 is to be moved out of any useful manufacturing space in your plant and put aside until such time as the Government investment in your facilities for Avro has been brought down to a reasonable figure..."	Avro Canada C102 Jetliner - J C Floyd
1952	11	14	Jetliner	Minister Howe, furious about rumors of Hughes' financing the production of Jetliners writes to Crawford Gordon at Avro: "	Avro Canada C102 Jetliner by Jim Floyd
1952	11	19	Jetliner	TCA announces purchase of fifteen British Vickers Viscount 700 transports valued at \$11.5 million.	Aircraft & Airport, December 1952
1953	0	0	Jetliner	Jetliner used to photograph CF-100 weapons and ejector seat tests	Canadian Heritage Calendar
1953	1	1	Jetliner	Editorial: It has never ceased to amaze us that TCA was not pressured into ordering (Avro) Jetliners (we imply no discredit to the Jetliner). With such a big government stake in this project, it was generally accepted that the Canadian air line would not have much say in the matter. Whether this was because Mr. Howe refrained from applying pressure, or because TCA officials had the courage to resist such pressure, we do not know. It is probably to the credit of both that the airline was ultimately able to make its own choice in its own time. In the selection of Viscounts, we think that a sound decision has been made.	Aircraft & Airport, January 1953
1953	3	1	Jetliner	Editorial - 'Comes the Revolution' : Canadian pacific Airlines challenges TCA's monopoly by being first country outside of Britain to adopt turbojet transports (Comets) even before TCA introduces turboprop (Viscounts) to North America.	Aircraft & Airport, March 1953
1953	7	9	Jetliner	Toronto Globe & Mail: "	Avro Canada C102 Jetliner by Jim Floyd
1953	9	1	Jetliner	US Civil Aeronautics Deputy Minister, Frederick B. Lee announced plans to charter Avro C-102 Jetliner to obtain data on turbojet transport operations.	Aircraft, September 1953
1953	9	1	Jetliner	Jetliner demonstrated at Canadian National Exhibition Airshow	Canadian Heritage Calendar

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1953	10	0	Jetliner	With CF-100 production back on track Avro submitted detailed reports to TCA and Government on a more powerful Mk2 Jetliner they called C106 - if authority was given by January 1954, the first aircraft could be delivered by late 1956 - reaction by both parties was less than enthusiastic - C D Howe apparently vexed that the subject of the Jetliner was haunting him again	Avro Canada C102 Jetliner - J C Floyd
1953	12	11	Jetliner	Avro Memo by J C Floyd Avro Design Engineer - "...it was certainly not our inability to build the Jetliner which crucified this airplane.....it did in fact meet the specifications. Politics and indecision on the parts of Government, the Company, and the criminal handling of the Certification problems by the Dept of Transport due to ignorance, and the reticence to take a gamble , were the deciding factors in digging the grave for this aircraft...."	Avro Museum RL 853-1953
1954	6	0	Jetliner	C D How - Minister of Trade & Commerce / Defence Production - "...Canada has every right to be proud of the growth of the Canadian Aviation Industry. While this development has been influenced greatly by our defence requirements, we should not overlook its constantly increasing civilian importance...."	Canadian Aviation Magazine
1954	6	0	Jetliner	Letter to Canadian Aviation Magazine by S. A. Williams, Vice Pres, & General Manager - Railway & Power Engineering - "...It is possible that, had the Avro Jetliner received support in the form of production contracts from the government, Canada may today have been a world leader in the jet transport field..."	Canadian Aviation Magazine
1954	8	0	Jetliner	Government ownership of Trans Canada Airlines and the government domination of commercial air transport should be ended as soon as possible. It is wrong in principle and bad in practice.	Canadian Aviation Magazine
1954	12	12	Jetliner	TCA's first British built Viscount 724 Turboprop arrives in Montreal.	Aircraft, January 1955
1955	1	1	Jetliner	"An Airlines Viewpoint" by J.T Dymen, TCA's Director of Engineering:- "...The jet age has not arrived as soon as expected, and it will not arrive until manufacturers appreciate the hard financial and operational facts of life and provide designs accordingly. The Comet has been here and gone.... we have postponed the widespread use of jets until the 1960's... "	Aircraft, February 1955
1955	7	3	Jetliner	Toronto Globe & Mail - "How long must this country endure the irresponsibility and arrogance of Trade Minister Howe? His most recent eruption, the wanton slander of a private company (Avro), was doubly repugnant because it was made from behind the safe bulwark of Parliamentary immunity....Regrettably, the company can not pursue the slander to its logical conclusion - the courts - not only because of Mr. Howe's immunity, but because its dependent for its existence on Government orders...."	Avro Canada C102 Jetliner by Jim Floyd
1956	3	0	Jetliner	TCA to decide between Boeing 707 and Douglas DC8 transports for delivery in 1961	Canadian Aviation Magazine
1956	11	23	Jetliner	Last check flight of the Jetliner - it being a prototype aircraft there was concern with respect of the lack of spare parts and maintenance.	Avro Canada C102 Jetliner by Jim Floyd
1956	12	0	Jetliner	"The decision to abandon the Jetliner project was made entirely and directly by Mr. C.D. Howe' - Avro VP Engineering, Jim Floyd .	Avro Canada C102 Jetliner - J C Floyd
1956	12	10	Jetliner	Avro Memo by Avro President Fred Smye to Jetliner design engineer James Floyd ordering destruction of the Jetliner - "...with great regret I must say that the Jetliner is not to fly again, but rather is to be dismantled, in an appropriate fashion, as quickly and quietly as can be done, every precaution being taken to attract as little attention as possible, and with the avoidance of any fanfare" (note - only the cockpit section was saved when National Museum said the aircraft was too large to store)	Canadian Heritage Calendar

# Timeline sorted by Section

Printed on 3/19/13

Year	Month	Day	Section	Description	Source
1958	8	26	Jetliner	The Globe and Mail - "...There is no telling what Avro would have achieved in the commercial field if the company had been permitted to go ahead. The engineering genius which produced the Jetliner went on to create the CF-100 and the spectacular Arrow. If the genius had been applied to the Jetliner's successors, the world's airlines might long before now have been beating a path to Canada's door, instead of placing their orders with manufacturers in the US and UK (where even Canadian airlines must buy their equipment)..."	Avro Canada C102 Jetliner - J C Floyd
1958	9	26	Jetliner	Toronto Globe & Mail: "There is no telling what Avro might have achieved in the commercial field if the company had been permitted to go ahead"	Avro Canada C102 Jetliner by Jim Floyd
1959	5	6	Jetliner	French Caravelle went into civil service with Air France - 282 produced by mid 1972.	Avro Canada C102 Jetliner by Jim Floyd
1960	0	0	Jetliner	former Minister C D Howe's government files on the Jetliner are destroyed.	Avo Researcher / Author Palimiro Campagna
1960	4	1	Jetliner	Trans-Canada Airlines offered Canada's first jet service with Douglas DC-8 domestic flights.	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1961	10	8	Jetliner	Canadian Pacific Airlines stepped into jet service with intercontinental Douglas DC-8's	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1962	8	0	Jetliner	the western world's turbine powered commercial fleet in service or on order now numbers 1907 aircraft	Aircraft Magazine
1963	6	0	Jetliner	Boeing Aircraft completes its 1000th jet transport - included are portions of contracts from 1956 for 660 KC-135 tanker aircraft and C-135 transports for the US Airforce....there are now 334 commercial Boeing passenger jets in service	Aircraft Magazine
1963	6	0	Jetliner	Trans Canada Airline advertisements carry the phrase 'Air Canada'	Air & Space Magazine
1964	2	18	Jetliner	Canadian Pacific Airlines reserved assembly line positions for two U.S. SST's (Super Sonic Transports).	Air Transport by L.D. Edwards in Canadian Aviation Magazine Anniversary 1978
1967	0	0	Jetliner	"...The Jetliner is without a doubt the major fiasco in the whole sweep of history of Canadian technology. The decision to abandon the aircraft cost us billions of dollar in export earnings as well as incalculable world prestige..." - Dr. J. j. Brown, Professor of Entrepreneurial History - McGill University	Ideas in Exile - Dr. JJ Brown
1970	0	0	Jetliner	TCA President Mc Gregor in his book 'Adolescence of an Airline', comments on being a passenger on the Jetliner New York flight - "...At no time was it suggested, except by the Avro, that TCA would buy this unsuitable equipment, and grast as the interest of the government in developing an aircraft industry, it was never put forward by Mr. Howe that this should be done at the expense of the integrity of the Airline...."	Avro Canada C102 Jetliner - J C Floyd
1970	3	10	Jetliner	Pilot Don Rogers described his reaction to the destruction of the Jetliner - "...a really beautiful machine - being cut up with saws, axes and hammers, with pieces falling on the hangar floor. I couldn't go in the hangar for a couple of days while they were doing this job because it was a heart-rendering experience..."	Avro Canada C102 Jetliner - J C Floyd
1979	0	0	Jetliner	Government lifts restrictions on air travel because TCA - Air Canada control 78% of all airline traffic	
1998	6	12	Jetliner	Don Rogers, Avro Jetliner Pilot and Manager of Test Flight, was inducted into the Canadian Aviation Hall of Fame	1999 Calendar published by Adlin Group
1963	5	9	Jetlner	Trans Canada Airlines President G R McGregor announces that TCA is looking for short-medium range aircraft because of public preference for jets over turbo prop which is hoped will be replaced by 1966	Air & Space Magazine
1947	5	0	Orenda	AV Roe announces development of two new jet engines - Chinook and Orenda	Canadian Aviation Magazine

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1947	12	0	Orenda	AV Roe announces that its first jet engine, now called the Chinook should be running in Feb/March	Canadian Aviation Magazine
1948	1	15	Orenda	Detail drawing issue of the Orenda engine completed.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1948	3	1	Orenda	The first run of Avro's Chinook gas turbine engine (thrust of 2900 lbs).	Avro Car - Canada's Flying Saucer by Bill Zuk
1948	3	17	Orenda	First run of Chinook engine with a design thrust of 2,600 lbs - twenty months of refinement brought thrust to 3,000lbs	Orenda Newsletter) - July/Aug/Sept 1981
1948	8	14	Orenda	Avro turbo-jet plant avoids strike of 1,000 workers	Canadian Aviation Magazine
1949	2	10	Orenda	first run of Avro's TR-5 Orenda engine to power CF-100's with outstanding 6,250 lbs of thrust - design had started in Sept 1946.	Avro Car - Canada's Flying Saucer by Bill Zuk
1949	3	0	Orenda	commenting on the first test run of Avro Canada's new jet engine being developed for the RCAF ...Defence Minister Claxton cautioned that in other countries rmany months of testing were required before an engine could become an aircraft power unit.... Some engines tested eight years ago are still being improved....	Canadian Aviation Magazine
1949	4	4	Orenda	100 hours running time of the Orenda engine completed.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1949	5	10	Orenda	First Orenda engine delivered design performance.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1949	7	1	Orenda	500 hours running time of the Orenda engine completed.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1949	8	10	Orenda	The new Orenda engines were being installed in a Lancaster for testing, the XC-100 prototype was near completion.	The Dream Lives On by Bill Zuk / Januz Zurakowski
1949	9	23	Orenda	1000 hours running time of the Orenda engine completed.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1949	11	0	Orenda	RCAF order an Orenda engine be prepared for complete testing for the new F86 Sabre being built by Canadair	Canadiain Aviation Magazine
1949	11	0	Orenda	RCAF request Avro prepare an engine for installation on the F-86 Sabre beingbuilt for the RCAF by Canadair....the entent being to test its performance as power for the new Avro CF-100 Canuck	Canadian Aviation Magazine
1949	11	0	Orenda	The keen young engineers responsible for developing the Orenda jet engine deserve congratualtions. They have triumphed over the national inferiority complex....They have confounded the critics who said it couldn't be done. They have pulled off a miracle in developing a turbine power plant that ranks with the best anywhere.	Canadian Aircraft Magazine
1950	3	2	Orenda	First official flight clearance at design rating for the Orenda engine.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1950	5	10	Orenda	2000 hours running time of the Orenda engine completed.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1950	7	13	Orenda	First flight of Lancaster with two outboard Orenda gas turbine engines.	Avro Canada C102 Jetliner by Jim Floyd
1950	8	1	Orenda	Use of Orenda engines in the 100 F-86A Sabres to be built by Canadair will save Canada \$25 million.	Aircraft & Airport, October 1950
1950	8	9	Orenda	First flight of Canadian built Canadair F-86A Sabres (first few aircraft flew on GE J-47s while first Orenda powered Sabre underwent ground trials at the North American plant in California). Note: RCAF purchased 22 North Star Transports sometime prior to this date - even before the Berlin airlift.	Aircraft & Airport, September 1950
1950	10	1	Orenda	Dept of National Defence orders \$100 million worth of F-86 Sabres from Canadair in Montreal - the engines expected to come from Avro Canada...	Aircraft & Airport Magazine

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1950	10	5	Orenda	First flight of the Orenda engine in service type aircraft.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1950	10	20	Orenda	First 100 hours flying of the Orenda engine.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1951	1	1	Orenda	Avro Canada turbine plant of 400,000 sq. feet nears completion.	Aircraft & Airport, May 1951
1951	2	5	Orenda	5000 hours running time of the Orenda engine completed.	The Development of the Avro Orenda Jet Propulsion Engine by D.W. Knowles
1951	8	0	Orenda	Avro develops electrically heated turbine and compressor blades to prevent engine icing	Aircraft Magazine
1952	3	1	Orenda	Orenda engine plant delayed by steel shortages, only has 10% of equipment installed.	Aircraft & Airport, April 1953
1952	6	1	Orenda	Orenda plant scarcely begins operations with 60% of machine tools installed.	Aircraft & Airport, April 1953
1952	7	1	Orenda	Orenda assembly shops moved to new engine plant facility.	Aircraft & Airport, April 1953
1952	9	29	Orenda	C D Howe attends openign of Avro Canada manufacturing plant, testing and storage facility at Malton officially opened with \$66 million in Dept of Defense Production orders, but already producing one Orenda engine per day. The Avro Canada engine plant is a government financed and owned facility managed by Avro Canada on behalf of the Dept of Defense Production.	Aircraft & Airport, November 1952
1952	9	29	Orenda	C.D. Howe, Minister of Defense Production announces opening of the Orenda plant.	Orenda News - July/Aug/Sept 1981
1952	11	1	Orenda	Orenda heat treating facilities moved to new engine plant facility.	Aircraft & Airport, April 1953
1953	5	18	Orenda	Flying a Canadair Sabre 5, powered by an AVRO Orenda engine, American Jacqueline Cochran set a new closed course speed record of 652 mph and in the same aircraft became the first woman to fly an aircraft in excess of Mach 1.0. The aircraft bore no markings, civil or military.	Aircraft, June 1953
1953	7	30	Orenda	First flight of Orenda powered Sabre MK5.	Aircraft, September 1953
1953	9	14	Orenda	Avro Gas Turbine Division undertakes private venture to design new engine, designated PS-13, to power the aircraft that would replace the CF-100 Canuck.	Avro Arrow by The Arrowheads
1953	10	14	Orenda	Hawker Siddeley's Design Council approves design of the PS13 Iroquois following a two day presentation by Orenda engineers	Fall of An Arrow by Murray Peden
1954	1	1	Orenda	Trade magazines speak of new Orenda "Waconda" 20,000 lb thrust turbojet engine.	Aircraft, March 1954
1954	1	13	Orenda	Hawker-Siddeley authorizes private venture of \$3.5 million for Orenda to build Iroquois. Orenda hoped to secure RCAF contracts by demonstrating a prototype engine.	Fall of An Arrow by Murray Peden
1954	2	0	Orenda	1,000 new engines delivered to the RCAF	Avro Canada C102 Jetliner - J C Floyd
1954	2	18	Orenda	Avro Gas Turbine Ltd delivers 1,000th Orenda to RCAF.	Aircraft, March 1954
1954	5	1	Orenda	Iroquois detail design completed.	Avro Arrow by The Arrowheads
1954	7	29	Orenda	A.V. Roe's Gas Turbine Division became Orenda Engines Ltd.	Avro Car - Canada's Flying Saucer by Bill Zuk
1954	12	5	Orenda	The first PS13 Iroquois was delivered for testing.	Fall of An Arrow by Murray Peden
1954	12	19	Orenda	Iroquois was started at 4:24 p.m. and run on its own power.	Fall of An Arrow by Murray Peden
1955	2	1	Orenda	The Canadian F-86 Sabre MK5 was powered by Orenda 10 engines.	

# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1955	2	1	Orenda	Orenda has produced 1,750 engines.	Aircraft, March 1955
1955	2	25	Orenda	Minister of Defense, Ralph Campney, in a request to Cabinet Defense Committee for development of the Orenda PS-13 Iroquois praised the Orenda design team.	Storms of Controversy, by Palmiro Campagna - 1992
1955	3	1	Orenda	Orenda produced another 1,000 engines since celebrating completing the first 1,000 on February 18, 1954.	Aircraft, April 1955
1955	3	2	Orenda	Orenda releases 1,000 workers due to cutbacks in Avro Canuck / Canadian Sabre programs.	Aircraft, April 1955
1956	6	12	Orenda	Iroquois engine successfully completed the first official 50 hour Pre-Flight Rating Test (P.F.R.T.)	Avro Arrow by The Arrowheads
1956	7	0	Orenda	Canadian Aviation Magazine - 'Orenda blazes a trail in titanium - Find many difficulties exaggerated' - developing of techniques has assured metal a place in aviation	Canadian Aviation Magazine
1956	7	3	Orenda	First test of Iroquois afterburner.	Avro Arrow by The Arrowheads
1956	9	19	Orenda	Iroquois achieved 1,000 hour run time.	Avro Arrow by The Arrowheads
1956	12	0	Orenda	3,000 new engines delivered including engines for the new Canadian Sabre	Avro Canada C102 Jetliner - J C Floyd
1957	0	0	Orenda	Orenda learns that Dassault Aircraft of France are interested in the Iroquois for their new Mirage IV fighter	Arrow Timeline
1957	2	0	Orenda	German order for Canadian Sabre 6 aircraft saves Orenda from laying off 350 employees	Aircraft Magazine
1957	2	0	Orenda	A German order for Sabre aircraft saves Orenda from laying off 350 workers	Aircraft Magazine
1957	7	27	Orenda	Iroquois successfully completed 100 hour endurance test at 18,700 pounds thrust.	Avro Arrow by The Arrowheads
1957	9	30	Orenda	Orenda sells manufacturing rights for the Iroquois to Curtiss-Wright of the US along with rights of further development	Arrow Timeline
1957	11	1	Orenda	Iroquois run for government officials at 19,000 pounds dry thrust (no afterburner).	Avro Arrow by The Arrowheads
1957	11	13	Orenda	Orenda Iroquois engine tested at altitude on US B-47 bomber	Canadian Heritage Calendar
1958	10	31	Orenda	France, upon hearing PM Diefenbaker's Sept statement concluded that the Iroquois program had or would cease to exist and therefore not risk obtaining it for their own Mirage program.	Storms of Controversy, by Palmiro Campagna - 1992
1958	11	15	Orenda	The Iroquois on the B-47 was shut down during a full power test when a loud bang was heard and the engine started trailing smoke	Canadian Heritage Calendar
1959	2	20	Orenda	at the time of the Arrow cancellation, the B-47 Iroquois had accumulated 31 running hours	Canadian Heritage Calendar
1959	2	20	Orenda	Iroquois had 31 hours testing on the B-47 at time of cancellation.	Avro Arrow by The Arrowheads
1960	2	0	Orenda	Orenda announces development of small marine diesel engine and will distribute engines imported from the United Kingdom	Canadian Aviation Magazine
1961	3	0	Orenda	"Turbo Lifting Fan Work puts Orenda on Top of VTOL Field"	Aircraft Magazine
1962	6	0	Orenda	Orenda Engines contracted to build 250 General Electric CJ610-1B trainer engines under licence	Aircraft Magazine
1962	10	0	Orenda	Orenda wins \$18,751,325 contract to build General Electric J85-CAN-40 engines, a Canadian version of the CJ610-1B originally intended for the RCAF CT-114 trainer program....	Aircraft Magazine
1963	3	0	Orenda	Orenda records Government defence earnings of \$39 million - an increase of \$4.6 million in the previous year	Aircraft Magazine



# Timeline sorted by Section

Printed on 3/19/13

<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Section</i>	<i>Description</i>	<i>Source</i>
1963	4	0	Orenda	Hawker Siddley Canada Ltd announces research into fiberglass reinforced engine parts - work that was begun six years earlier during development of its Orenda Iroquois engines	Wings & Space
1954	7	1	Other	"Dollars and Pounds" - Group Captain H. R. Footit - "...difficult to put value of a fighter or bomber for their value hinges on a future war and the equipment a future enemy may throw at us..... Modern aircraft follow the production planner's "80% law" which states that each time you double the number of aircraft produced, the man hours per aircraft are reduced 80%... Five hundred fighters could be built for only 22 times the cost of the first two airplanes..."	Aircraft, July 1954