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CLASSIFICATION

UNCLASSIFIED

SYSTEM NUMBER

70987



TITLE

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System Number:

Patron Number:

Requester:

Notes:

DSIS Use only:

Deliver to: FF



A BRIEF INTRODUCTION TO THE HISTORY OF WOMEN IN AVIATION

by

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In The Very Early Days

Women have been involved in aviation since 1784 when Madame Elizabeth Thible went aloft in a Montgolfier balloon over Lyon, France. Generally speaking when women first took to the air in the pioneer days of flight, their efforts frequently met with scorn and ridicule. Flying was a male preserve, and many were determined to keep it so. But from the late 1920's onward, a spirited group of women flyers demanded to be treated as full fledged professionals rather than as publicity-seeking amateurs. Their exploits, particularly in the field of long distance flying, captured the imagination and the headlines of the world. They flew over trackless deserts and ocean wastes in single-engined planes which had a top speed of 80 or 100 mph, armed with only the crudest maps and often simply leaning over the side to see where they were going.

The first powered sustained flight in history was made by the Wright brothers at the end of 1903. By 1911, women, too, were in the air. The honour of being the first woman in the world to earn a pilot's licence belongs to Mme Elise de Laroche, who qualified for the thirty-sixth brevet issued by the French Aero Club (1910). The first British woman to qualify for her pilot's licence was Mrs Hilda Hewlett.

Women pioneers in aviation were making remarkable solo flights. Lady Bailey and Lady Heath were both flying routes between England and Africa in 1928 and 1929. In 1930 Amy Johnson flew alone from England to Australia, and two years later Amelia Earhart crossed the Atlantic from America. At a time in history when women were only just winning social and political rights, flying presented to them an even greater challenge than it did to men. The years 1929-1939 were the decade of the lady pilot. Teenage fictional heroines drove fast cars, speed boats and aeroplanes. Air racing had an enthusiastic following as it combined the thrills and dangers of the early technological era.

The Second World War

By 1939 the romantic era of aviation was drawing to a close. When war was declared in September that year, the Air Transport Auxiliary (ATA) was formed by the Royal Air Force. The first eight women were led by Pauline Gower. As time went by, the minimum 500 hours experience necessary for women to qualify for the ATA was lowered and more women were given test-flights and accepted. As pilots of the ATA they would ferry planes from factories to maintenance units and the RAF squadrons, either for training purposes or for active service. They would also transport dispatches and mail, medical supplies and VIPs. In the beginning they were not allowed to fly anything larger than Tiger Moths and similar light aircraft. Eventually, their ranks were to swell to a hundred; they piloted huge four-engined bombers and the first temperamental jets all over Britain as well as across the Channel to Europe in the last stages of the war.

In 1942 the first American woman came to share the danger, the arduous work and long hours.

From 1942 to 1944, almost two thousand women pilots left their civilian lives as students, secretaries, blackjack dealers and wives with husbands overseas to converge on Avenger Field, Sweetwater, Texas. There, the only all-female cadet air base in history, they slipped into ill-fitting men's GI flying suits and marched into the "Army Way" of life. Six months later, the Women's Airforce Pilots (WASPs) were ready to fly every airplane in America's air arsenal, from the colossal B-29 Superfortress to the lightning-fast P-51 Mustang Fighter. Over seventy of these air heroines were killed or injured flying for their country. They flew 70 different types of aircraft over a distance of 9 million miles. Despite their service, the WASPs were not officially recognized until 23 November 1977 when President Jimmy Carter signed veterans status for the Women's Airforce Service Pilots of World II. They were issued discharges to be presented to the Veterans Administration so that they could finally enjoy those benefits enjoyed by all their male counterparts.

Post World War II

Following World War II, women continued flying primarily in civilian aviation circles. The militaries of the world did not admit women to undergo pilot training until the mid seventies. The United States led the way. In 1973, the first eight female flight students began flight training. In 1974, Lt Barbara Rainey became the first woman naval aviator to gain her wings. She was later to lose her life in a mid-air collision in 1982 while instructing in a T-34. The Netherlands commenced military pilot training in 1978 and Nelly Speerstra became the first female combat pilot trainee within NATO. This was followed by Canada in 1979. Canada opened pilot training as a trial program. There were four initial trial candidates who commenced training in November 1979. In February 1981 three graduated to wings standard and went on to fly as instructors or transport pilots. There followed seven years of recruiting and training female pilot candidates until 1986 when the military concluded the trial, deeming it essentially to have been successful and viable. One year following, all restrictions to the employment of female pilots were lifted and fighters' tactical helicopter squadrons and shipborne anti-submarine warfare helicopter squadrons were opened to women. The first two women, Dee Brasseur and Jane Foster commenced basic fighter pilot training in June 1988 and completed transition training on the CF-18 in June 1989. These two pilots are currently employed on Operational Fighter Squadrons undergoing combat-ready training.

In over 100 years of aviation history, many women have made exceptional personal and professional sacrifices in pursuit of the privilege and right to fly. No doubt, future fledgling aviators owe much to those who have gone before and opened the hangar doors to new horizons for women in aviation.

Into The 1990's and Beyond

As of 1st April 1990, 8 countries are recruiting female military aircrew (although the United States do not recruit them in the Marine Corps, nor do the United Kingdom recruit them into the Royal Navy or the British Army). Of these, 5 countries - Belgium, Canada, the Netherlands, Norway and Spain have legislation which allows them to fly in combat. There are six countries who currently do not recruit female military aircrew at all. Currently the number of operational female aircrew in all countries totals approximately one thousand. This is summarized in the following table.

Title: Current status of recruiting and number of military pilots trained in NATO Airforces.

Country	Recruiting		Allowed in Combat	Approximate No. of Pilots
	Yes	No		
Belgium	1983		Yes	0
Canada	1979		Yes	19
Denmark		X		
France				2
Navy	1983			15
AirForce	1983			18
Army	1983			
Germany		X		
Greece		X		
Italy		X		
Netherlands	1978		Yes	16
Norway	1982		Yes	2
Portugal		X		
Spain	1989		Yes	0
Turkey		X		
United Kingdom				0
RAF	1989			
Army		X		
Navy		X		
United States				
Army	1973			220
Navy	1973			212
AirForce	1976			Approx. 500
Marine		X		

Objectives

My colleagues and I in the aeromedical panel (AMP) considered it was time to dispel some of the myths related to the female aviator. With the approval of the AGARD National Delegates Board and the Chairman of the AMP, we received the permission to organize a symposium on the principles topics -

- Operational experience of female pilots
- Selection and performance
- Anthropometry
- Aircrew personal equipment
- Physiological consideration

If you were one of the 116 people who attended the meeting, we hope that you enjoyed the meeting contents; if you only received the conference proceedings and there any outstanding questions either not addressed or answered, I would be pleased to hear from you. A letter or Fax 416 635-2104 to me at D.C.I.F.M. will receive a reply.

Acknowledgements

As programme chairman I would like to acknowledge a number of people who made major contributions to the great success of this meeting.

This symposium could not have been carried out without the assistance of Captain Jim Brady of the United States Navy and Colonel Paul Vandenbosch of the Belgium Air Force. They helped me originate the topics, the call and choice of papers and very ably co-chaired the meeting. I have also to thank Air Commodore John Ernsting, Mrs. Patricia Rothwell and Mrs. Cathy Sutton for their opinion and advice on the final programme before we went out for the call for papers. I have to thank Major John Winship and Mademoiselle Dany Michel at AGARD Headquarters for all their hard work in getting the pink forms out on time and collating all the camera ready papers so that there was no delay in distribution of the conference proceedings.

The three female operational pilots established the quality of speakers for the entire meeting and I would like to thank Commander Lynn Hutton, U.S.N., Major Dee Brasseur, Canadian Air Force and Lieutenant Mireille Winnubst from the Royal Netherlands Air Force for taking time off from their squadron duties to present their fascinating experiences. I would also like to thank all the remaining presenters for not only their quality of papers, but ensuring that they spoke within their prescribed time. We presented 28 papers in two days including questions and answers and stayed on time, a fine achievement.

This was my first experience at organizing an AGARD symposium. I did not realise how much paperwork was involved in the job. The majority of this fell on the shoulders of my very capable and efficient Administration Clerk Sergeant June Parris who already has a full time job. Not only did she type all five camera ready manuscripts for the Canadian papers in this conference proceedings, but also volunteered to type two additional ones which may not have met the deadline of going to press otherwise. We all owe her a vote of thanks.

Lastly I have to thank Major Dee Brasseur and Lieutenant Commander Blower for their assistance in helping me put together this brief history of women in aviation in which I have relied heavily on the books "The Sky's the Limit" by Wendy Boase and "Those Wonderful Women in Their Flying Machines" by Sally VanWagenen Keil.

