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TO CARAVELLE WITH LOVE

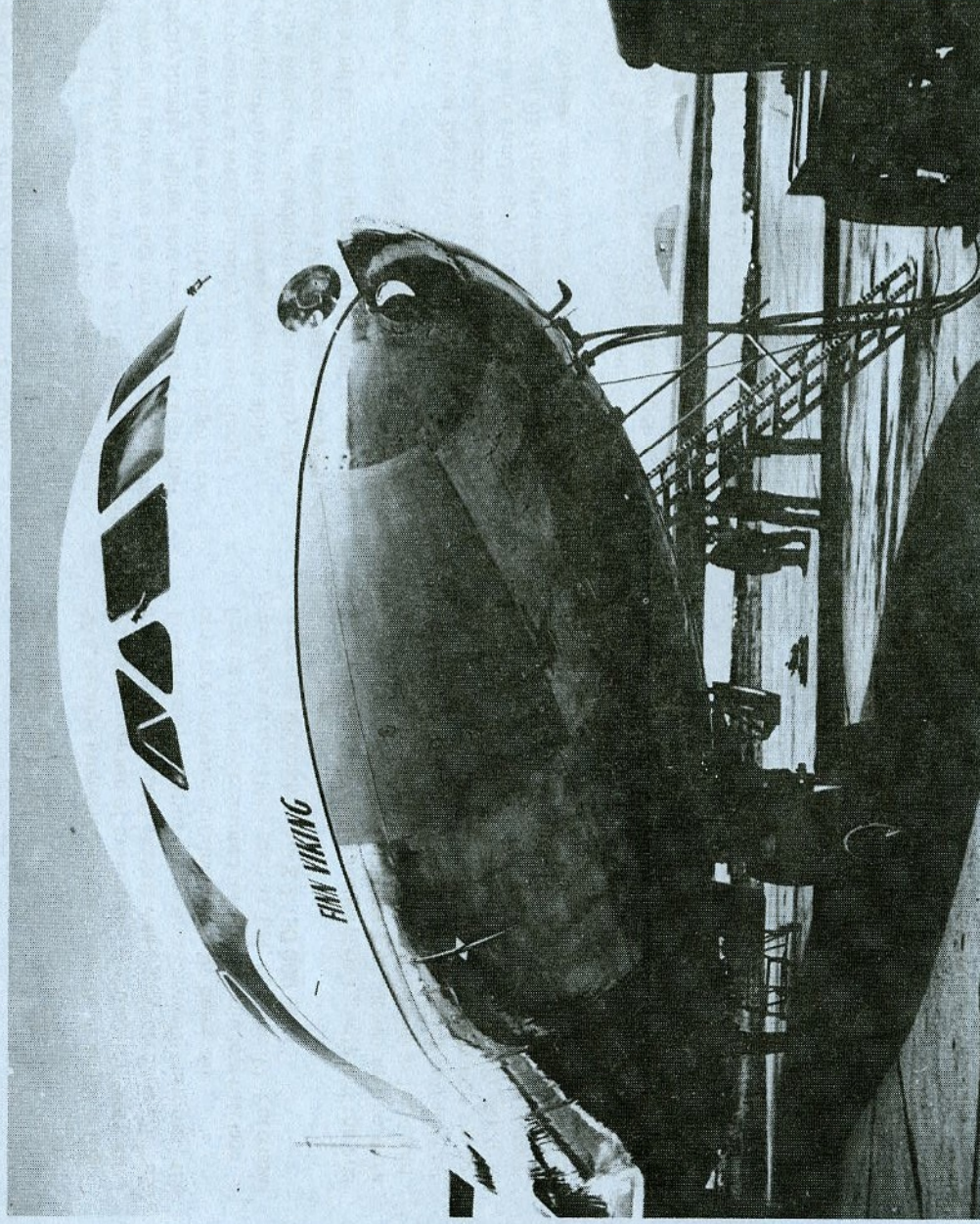


Fig. 1. A gallic nose

On September 25, the SE-210 Caravelle will make its last scheduled flight for SAS, thus ending an era. We therefore thought it fitting to devote this 100th and last AFM Bulletin to an eulogy over our dear French Friend who is now about to depart from us after 15 years, 5 months and 15 days, missed and mourned by us all.

In the beginning

As everybody knows, the name Caravelle goes way back into history to that day when a certain Chris Columbus decided to give his newly developed Area Nav concept a field test. This prototypal model worked on the principle that to go e.g. east, you headed west. Not surprisingly, Chris had some difficulty finding a sponsor but a rich old lady finally dishied out the necessary doubloons in return for some favours Chris would rather not talk

about. From his Friendly Neighbourhood Used Ships Dealer, Chris picked three vehicles, caracelles, with low time on the sails and high density seating for charter work. One he named »Pinta» which means »pint» and reflects on a favourite pastime of his, one he called »Nina» - another favourite pastime - and the third he called »Santa Maria» after a hit tune of that now so distant day. Finally he determined his Present Position - not always an easy thing to do - punched in his waypoints, advanced the sails and was off. Fate later intervened in the form of an unknown parameter called America and the rest is history.

Some 400 - 500 years later, the Caravelle was reborn, this time in southern France. The question of parentage is, typically enough, a bit confused and probably known

with certainty only to those most intimately involved, but it seems that one partner was known as Quest-Aviation and the other Sud-Est Aviation. Their marriage, as Sud-Aviation, was consummated in 1957 but in 1970 the family name was once more changed to the more stylish Société Nationale Industrielle Aérospatiale, or SNIAS for short.

The offspring was conceived in January 1953 by order of the Secretariat d'État à l'Air and on May 27, 1955, the first prototype, christened the Santa Maria, took off on her maiden flight. She was followed by a second prototype on May 6, 1956.

In retrospect it is interesting to note that when comparing the original Santa Maria with her 20th Century counterpart the somewhat surprising fact emerges that the former was probably shorter, lighter and carried less cargo than the latter. Naturally, the original had a much larger crew, but creature comforts were probably minimal. Range and fuel consumption were, however, considerably better, while speed was decidedly not. Incidentally, the experts now concede the Santa Maria was probably not a Caravelle at all but a ship generally referred to as a nao.

Development

To merely say that the birth of the Caravelle created a stir would be a gross understatement. Even though preceded by the Comet and a few experimental jet airliners, the Caravelle was the first real herald of the jet age and promised an entirely new mode of travel.

Technically, the Caravelle was equally advanced. In addition to the failsafe concept, she incorporated such a novelty as hydraulically actuated flight controls without any mechanical links with the cockpit controls, a feature that was not taken up by the American manufacturers until the Boeing 747. Another feature was the brake parachute with which the earlier models were equipped in lieu of engine thrust reversers. She also became a fashion setter by carrying the engines at her derriere, a feature many times copied since.

The initial models, called I and IA, were powered by Rolls Royce RA 29 Mk 522 or Mk 522A's respectively. Type approval was received on April 8, 1959. The series encompassed 24 aircraft, all of which were eventually converted to Caravelle III standards.

The Caravelle III first flew on December 30, 1959, and was equipped with Rolls Royce Mk 527 engines except one aircraft which, at least for a time, flew with General Electric CJ 805 - 23 C engines.

Development continued with Caravelle VI-N, VI-R, 10R and the Super Caravelle, the last two marks having Pratt & Whitney JT8D-1 engines.

The design culminated with the Caravelle 12 which is a considerably altered and refined design. The fuselage is stretched by 4.23 meters over the original and it can seat a maximum of 139 passengers. The engines are Pratt & Whitney JT8D-9, developing 14 500 lbs of thrust versus 10 500 lbs of the Rolls Royce RA 29 Mk 522.

A total of 274 Caravelles had been built when production ceased - the last built being a Caravelle 12 which was delivered to operators all over the world and, according to statistics, well over 200 are still in use today - a good measure of the reliability of the aircraft and a good assurance that there will be Caravelles playing the skies for many years to come.

THE CARAVELLE IN SAS

The rise and fall

SAS became interested in the Caravelle at an early stage and after a period of evaluation, specification work etc., a first contract for 6 aircraft was signed on June 28, 1957. This actually made us the second Caravelle customer, the only previous one not unexpectedly being Air France. It also accounted for some really low fuselage numbers in our fleet, such as 3, 4, 6, 7 and 11. Purchase price was approximately \$ 2 150 000 each .

The number of SAS-Caravelles grew rapidly and the end of 1960 saw 13 on hand. After that, deliveries became a little more sporadic with one in 1962, two in 1964 and one in 1966. The last few aircraft were not outright purchases but long-term leases. Prices had then gone up considerably and the last aircraft cost \$ 2.850.000. All in all, 21 aircraft were delivered to SAS. Two of those unfortunately came to grief, one near Ankara and the other at Hong Kong while in THAI service, both accidents taking a toll of human lives. A third suffered the ignominy of having the landing gear legs come through the wing after a particularly non-Caravelle-like landing and was stricken from the roster.

As a result of these accidents, the greatest number of Caravelles in our fleet at any one time was 19.

In 1969, three of the leased aircraft were returned to Sud Aviation and in 1971 a further two were sold to the Swedish Air Force. Another aircraft was sold to a French operator in 1973.

Originally, it was planned that SAS would terminate Caravelle operations in 1971 - 1972 but these plans were changed in 1970 when it was visualised that operations would continue throughout the decade. To this end a modification program was outlined which would involve such major items as modification of the cockpit from a three- to a two-man crew, new electronics etc. Before any appreciable number of modifications could be incorporated, however, plans were, once more reversed, DC-9's purchased and the Caravelle era scheduled to come to a close during the latter part of 1974. That time has now come.

What will become of our remaining Caravelles? Naturally, we would like to see them live out their days on some easy kind of service but unfortunately it has not been possible to find new homes for all of them. Three just might find permanent resting places in museums but the rest will probably be reduced to scrap after SAS has stripped them of everything worth salvaging.

Sic transit gloria mundi!

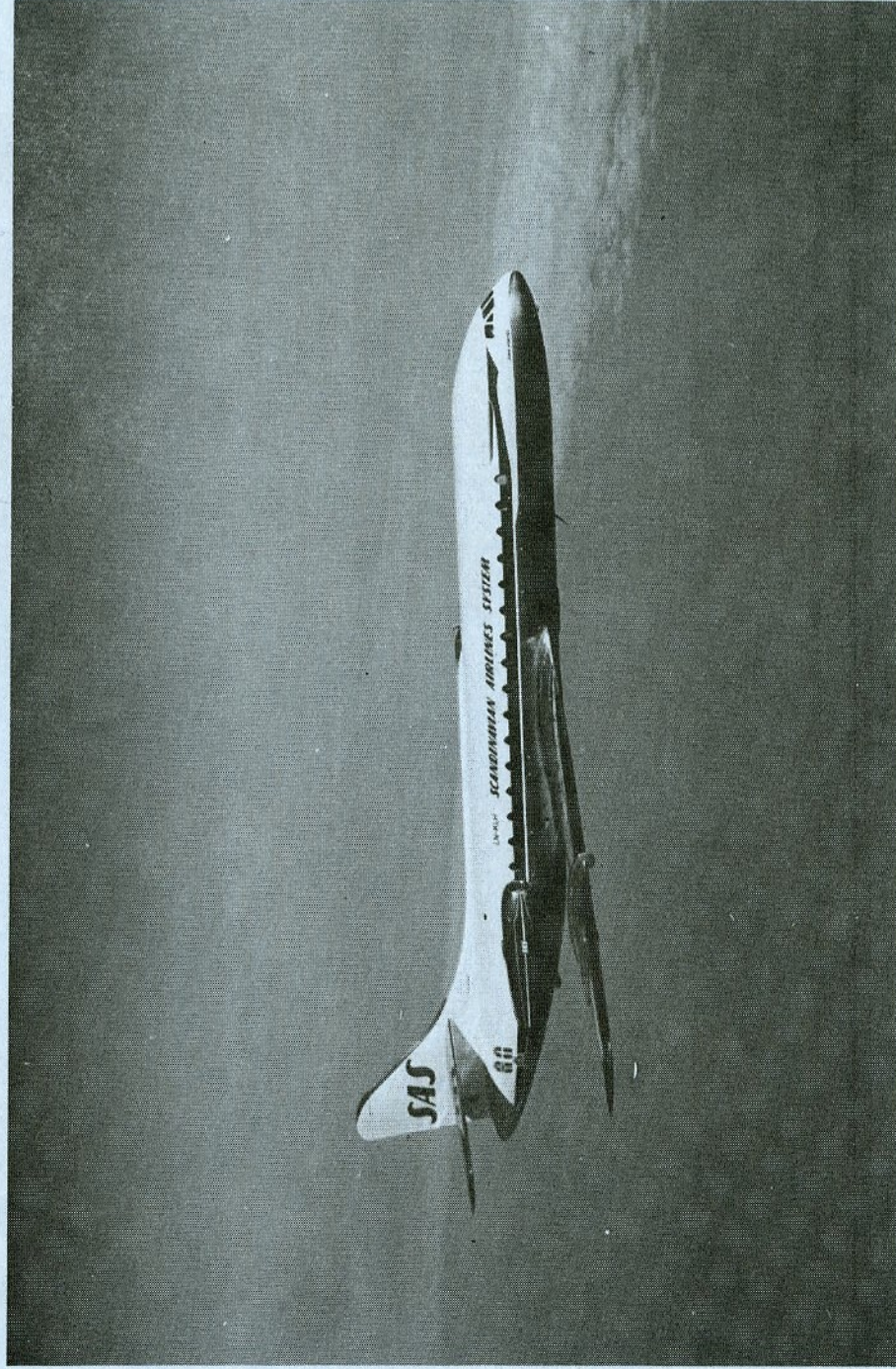


Fig. 2. LN—KLH, our first Caravelle in flight in connection with the first delivery 1959.

On operation

The first SAS-Caravelle was LN-KLH, delivered on April 13, 1959. It landed at Bromma after a 3-hour flight from Toulouse - the pilots being Capt. Gösta Carls and Capt. H.E. Fugl-Svendsen. The new aircraft at once caused a great furore both among our own staff and the general public. Its quiet smoothness and freedom of vibrations far surpassed anything else in the business and breathless representatives of the newsmedia allowed as how a coin could actually be stood on its rim on a serving table, recorded music enjoyed in flight etc. The speed was greater than that of most WW 2 fighters, the landings (mostly) incredibly smooth and then there was the sensation of seeing no engines on the wings. There was one first and one tourist class cabin, the former seating 20 passengers and the latter 50 for a total of 70.

After an initial period of flight training, modifications and getting ready in general, the inaugural flight took off from Scandinavia (CPH) to Middle East (BEY) on April 26, 1959 with Captain H.E. Fugl-Svendsen as Pilot-in-Command.

As more and more Caravelles arrived, they were put to work all over Europe and the Middle East, touching such diverse points as Khartoum, Tromsø, Teheran and Lisbon.

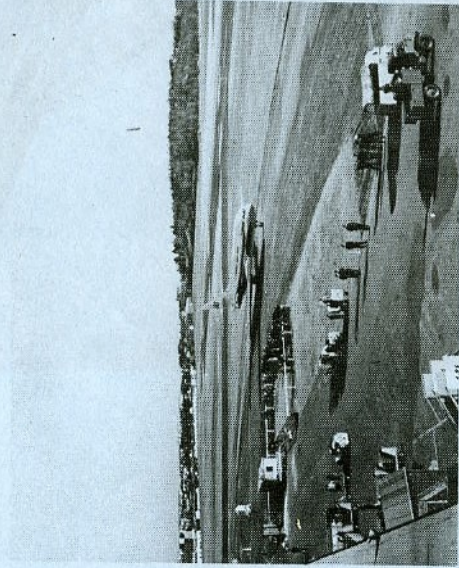


Fig. 3. The first SAS Caravelle arrives at Bromma, April 13, 1959.

Gradually, the demand for greater capacity increased, resulting in versions for e.g. 74, 81, 86 and finally 94 passengers. The days of champagne and caviar were then definitely over.

Gradually more modern aircraft surpassed the Caravelle in speed, range, capacity etc and the route net began to contract until she was mostly operating within Scandinavia. This was reflected in the daily utilization which dropped from a high of 6-6.5 hours to 3-3.5 hours. And now this fateful statistic has dropped to zero.

In purple orchid service

Mention must also be made of THAI Caravelle operations. These began in 1964 and eventually encompassed 5 aircraft. They were configured in first class only and seated a total of 72 passengers. THAI operated these aircraft into exotic Bali as well as such places as Hong Kong, Tokyo, Manila etc. All Caravelles were returned to SAS in 1970, having been replaced by DC-9's and, later, DC-8's.

Statistics - vital and otherwise

There are people who consider statistics damn lies and although we have checked the following information carefully, the magnitude of some of the figures make them quite difficult to fathom. One dares, for example, hardly breathe in these days of various energy saving schemes, that our Caravelle fleet has consumed a staggering 2 500 000 000 liters of kerosene but so is the case.

Total time for the entire Caravelle fleet is approximately 480 400 hours which is equivalent to 55 years in the air or

- 216.7 million kilometers or
- 540 170 times around the world at the equator or
- 285 round trips to the moon.

Highest time aircraft was OY-KRC with 34200 hours and appr. the same number of landings.

It is estimated that 13.5 million passengers have been carried and a total of 441 000 landings made.

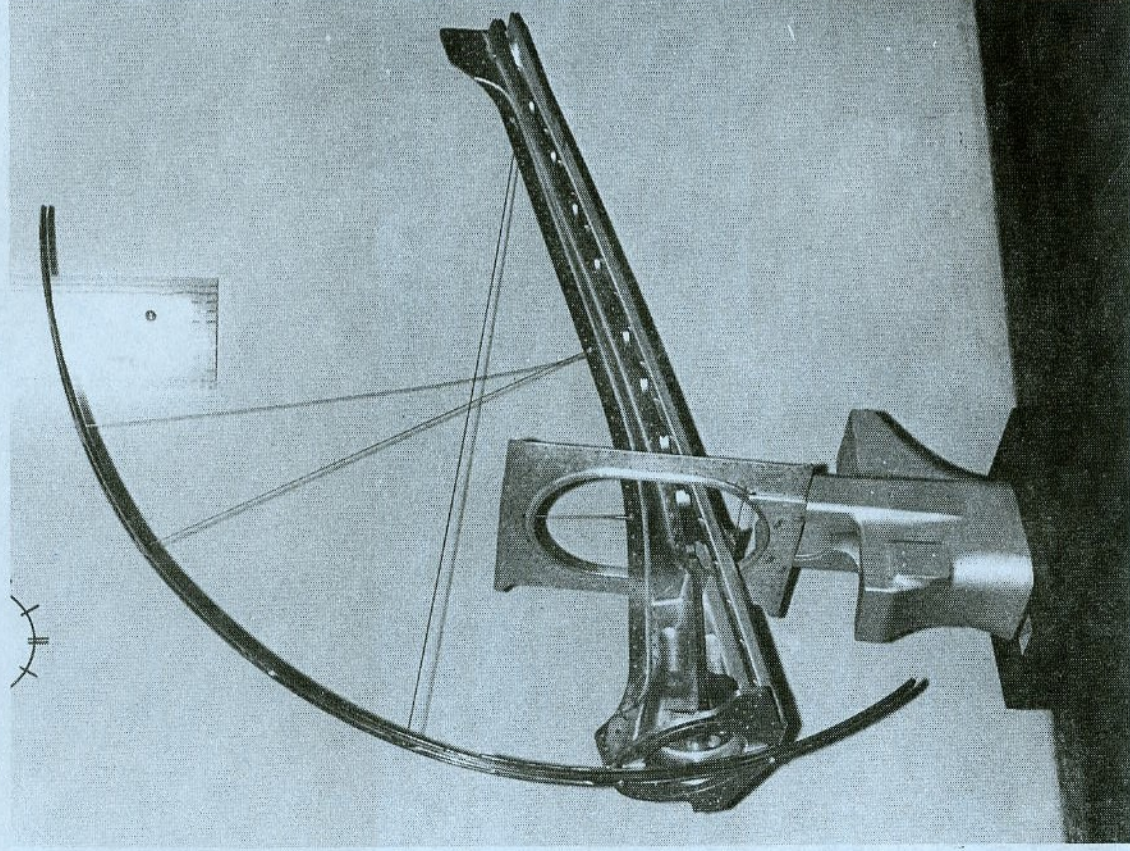


Fig. 4. The famous »Candelabre» turned into a piece of art.

Mademoiselle Caravelle

Airplanes, like ships, are usually accorded a feminine gender and there is no doubt that our French friend is a femme, at least when one applies the traditional, chauvinistic male views. Not only is she sexily graceful of contour but she has also been known to possess a not inconsiderable capricious charm. Switches, for instance, did not always work when first flipped, frequencies had to be re-selected, instruments tapped and if the RPM did not rise fast enough when starting the engines, a sure and immediate cure was to press the stall warning test button. Can you tell a Caravelle pilot from the regular, Brand X-type? Just ask him for the time - if he taps his watch before answering you have your man.

As time passed by and our mademoiselle began to add middle-age weight, it was at times a bit difficult for her to keep up with the youngsters, especially in climb. On one particular occasion, a fully laden aircraft was clawing for air after takeoff from Paris, enroute to Stockholm. The tower kept asking the crew to expedite the climb until the pilot handling the communication finally blew a fuse and blurted out: »We cannot climb any faster, zis is a French aircraft, m'sieu». Not very kind perhaps but quite effective.

With time she also developed a faiblesse for cracks in the landing gear fittings. This once caused a complete collapse of a main gear while taxiing in Copenhagen and many costly visits to Bordeaux to change the »Candelabre». The candelabre became a very widespread issue within the Company but since very few people actually knew what this famous item looked like, regard the photographic likeness in Fig 4, for a candelabre turned into a piece of modern art. Incidentally, this »sculpture» is on permanent display at the Linta works.

Into the sunset

Few aircraft have had such a devoted following as the Caravelle - not only those who flew her but everyone who was in any way associated with her seemed to be imbued by the »Caravelle Spirit». Many crewmembers remained faithful to her for extended periods of time, one Swedish captain even for the entire fifteen years she was with us. Parties have been held in her honor, clubs named after her, speeches made, toasts raised and stories told and re-told. Towards the end she could perhaps not, like an ageing mistress, quite fulfill all the purposes for which she was originally acquired but she always commanded our respect, love and gratitude.

Adieu cherie, we'll miss you.

