



Under the

Finnish sky

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The Civil Aviation Administration
1999
annual report



Operational standards high

Air safety in Finland in 1999 remained good, the financial result for the CAA remained reasonable and the quality of operations — as measured by delays to air traffic caused by air traffic control, and the standard of airport service — was excellent.

The otherwise exceptionally good and productive year for the CAA and air transport as a whole was overshadowed by the long, five week strike by our air traffic controllers in February and March. During this period it was only possible to provide air navigation services through the efforts of the supervisors. These make up only 10 % of all air traffic controllers. For this reason the number of controlled flights had to be restricted to about half and the scheduling of flights had to be severely regulated under special arrangements. It was the common goal of the CAA and the airlines to channel available resources to those flight operations which could not reasonably be made up for by other forms of transport. I have to say that as unfortunate and regrettable, and for the many people involved unjustly inconvenient, as the strike was, we succeeded well in directing our scant resources - taking into account the circumstances and the needs of society as a whole. The strike ended after the third proposal reached by the state conciliator. The settlement was for four years, and in terms of its effects on costs was higher than the general level, at least for the first two years.

The estimated effect of the strike on the annual number of air passengers was about 3.5 %, and the effect on the CAA's financial performance was FIM 25 million. Most of all, the strike affected domestic flights of less than 400 km, which to all intents and purposes ceased during the dispute. Traffic to Oulu and airports further north decreased by 26 % during the weeks of

the strike, for which Lapland tourism in particular, was forced to suffer. As a result of the traffic arrangements we introduced it was possible to limit the effects on foreign flights almost exclusively to the nearby countries of Sweden and Estonia. Travel in this sector fell by 18 %. Other international traffic, on the other hand, grew more or less normally in February, by 8 %. Air travel overall fell by 1 % from February of the previous year. Charter flights grew by 4 %. However, the schedule arrangements during the strike period did cause problems.

In 1999 Finnish GDP growth as measured by volume slowed from the previous year's 5.2 % to 3.5 %. It was mainly because of this that the growth trend for air traffic - excluding the effects of the strike - slowed down by the end of the year to 6 %, having been 10 % the year before. The actual growth was 3.5 percentage points slower, that is, 2.4 %. The actual growth in international traffic was 5 %, while domestic air travel declined by 3.4 %. The total number of air journeys on international flights was 7.3 million, while the number for domestic flights was 2.9 million.

Demand for air transport across Europe grew by 8 %, or 2 percentage points faster than the normalized trend for Finland. In proportion with the difference between Finland's economic growth and that of the whole EU area, the trend for Finnish air traffic growth in 1999 can be regarded as slow by European standards. It seems as though the tendency of air traffic demand to change in relation to general economic growth is gradually decreasing. The rule which has prevailed in Finland as well as the wider world for decades, that air traffic changes in pace with general economic trends by a knock-on factor of two, seems to be gradually

dwindling towards one and a half, and will eventually reach a point where it is roughly in step with general economic growth.

As demand for air transport develops, so regional differences will become great. The accelerating globalization of trade and production, along with the many other structural and demographic changes, will have a powerful effect on air traffic. In Finland, a land remote from the outside world and with long internal distances, air transport will continue to expand faster than overall economic growth for a long time to come. The geographical fact is that two thirds of the EU's 350 million inhabitants (read purchasing power) live within a radius of 350 km of Brussels or a number of other major European cities. Within a corresponding radius from the capital of Finland live fewer than one percent of the EU's population, and even within that circle, they are separated by sea in many directions.

A well functioning, comprehensive air traffic system — in the same way as advanced telecommunications — is extremely important for the Finnish business community. Because of geography, the small demand base and the structure of our business sector, the strategic value to the Finnish economy of those airlines whose business is based primarily on serving Finland and demand coming into Finland, far outweighs their market value. Because a well managed strategic utility has no market value or expected value on the stock exchange — other than what is reflected in those companies which these strategic support activities indirectly help — it is necessary for the management of the strategic enterprise and its chiefs at ownership level to exercise multidimensional thinking and understanding of the national economy as a whole.

As far as the Civil Aviation Administration is concerned, its primary aim is to maintain air safety. Air safety in Finland remained good during 1999. The number of occurrences reported to the flight safety authorities was slightly lower than normal, at around 460, of which 240 related to commercial aviation. There were 35 reports concerning CAA actions, in air navigation services or airport operations, which represented about 6 % of all reports and was fewer than for the year before. Commercial aviation was involved in 15 of the reported incidents which concerned the CAA. The reported cases related to anomalous procedures or hazardous situations. There was one inci-

dent which was classified as seriously dangerous during 1999, at Lappeenranta, in which deficient traffic information resulted in a glider and a commercial aircraft came to about 100 metres from each other.

On average there are about one or two air navigation incidents which are classified as entailing a degree of risk in Finland each year, which corresponds to the experience of advanced aviation countries. Of course, international comparisons are at present far from perfect because reporting thresholds and severity classifications for incidents are inconsistent. The Finnish Civil Aviation Administration has developed its occurrence reporting procedures and is striving to maintain an operational culture in which the reporting threshold is extremely low and where analysis of such situations does not seek to apportion blame.

After deductions and extraordinary items the financial result for the CAA was once again in profit, by FIM 85 million. Considering the circumstances of 1999, we can regard this as good. It exceeds the long term earnings goal of 4 % of basic equity set by the ministry of transport for commercially-run government owned infrastructure management enterprises. Revenues were hit during 1999 by the strike and by the abolition of duty free shopping for internal travel within the EU - each to the tune of about FIM 25 million.

The charges for CAA services, that is airport and route utilization fees, were raised by an average of 1 % — well below the general inflation rate. Cost based structural changes continued to be made in pricing, so that charges for domestic transport were raised by about 6 % and those for international traffic reduced by about 1 %. Airport fees for domestic traffic, are, however, still lower than those for international traffic.

Under an EU Commission decision, the place of origin of a flight should not be cause for any difference in landing fees for Finnish airports. The CAA sought an understanding from the Commission that airport charges could be priced according to what national legislation would allow — on commercial principles, within the framework of the overall profitability of the institution — taking into account at the same time the fact that manoeuvring fees for international traffic in Finland are among the lowest in Europe. This understanding was not received, the Commission instead by its demand for equal pricing regardless of

type of traffic. From the beginning of 2001 the CAA will have to raise its landing fees for domestic traffic to the same level as for international flights. This is regrettable for Finland's internal air traffic. There is no intention to lower the fees for international flights in this regard, since they are already among the lowest in Europe.

It is the CAA's long-term operational policy that, in a country such as Finland, there is no need to try to achieve more than a moderate return on capital for the maintenance of a basic infrastructure. If productivity benefits arise within the aviation infrastructure as a consequence of rising demand and improvements in operations, there is every reason to continue reducing airport fees in Finland and for airlines operating from Finland. For geographical reasons, a large proportion of air routes take on the nature of creative and reinforcing basic services for regional production and service enterprises. The Commission's call for equal pricing will to some extent weaken the CAA's ability to support what we Finns regard as a regionally justified service structure.

As a result of the development investment carried out at the airports and other improvements, the users' assessments of service standards at airports have improved in recent years, and the same trend continued at many airports during 1999. For the third consecutive year, the quality of service at the country's main airport, Helsinki-Vantaa, was rated in user surveys as one of the best in Europe.

Air traffic punctuality is the most important gauge of airport and air navigation service quality. It is the internal goal of the CAA that, weather permitting, no more than 2 % of flights at Helsinki-Vantaa should be delayed as a result of CAA activities, and that no more than 1 % should be more than 15 minutes late. The corresponding punctuality target for other Finnish airports is 0.5 %. This target was achieved in 1999. Delays caused for air traffic control reasons declined to less than half of the 1998 level. A significant factor in this development was the air space reform introduced in July. Helsinki-Vantaa is, in fact, one of the most punctual airports of its size.

Fewer than 8 % of flights at our main airport were delayed for air navigation reasons. Of this, 6 % percentage points were caused by air space regulatory meas-

ures beyond Finland's borders, and 1.7 % were caused by the CAA. Of those caused by the CAA, 1.2 percentage points were delayed by regulatory measures by regional air traffic control, including those caused by weather conditions, and 0,5 percentage points resulted from local restrictions at Helsinki-Vantaa airport when capacity limits were exceeded momentarily. Not much can be done, in fact, about delays caused by the airport itself before the third runway comes into service in 2002; rather, their share will increase with the expansion in traffic, but it is still possible to keep Finnish regional air traffic control's regulatory needs to a low level. Delays reflected from beyond Finland's borders will probably remain as before over the next few years, although an enormous amount of attention is being paid to this issue in every possible European forum.

Capital investments during 1999 rose to their highest level of all time, mainly thanks to two huge projects, the second phase of the expansion of the overseas terminal at Helsinki-Vantaa airport and the construction of the third runway. The terminal will be completed at the end of the year, but runway construction will continue until 2002, and only after then will the level of investment revert to normal.

Despite these enormous investments, the cessation of duty free sales and the exceptionally high pay settlement, we believe that we can continue in the future to provide a high standard of service as well as carry out at least a moderate, realistic reduction in tariffs — assuming that air traffic continues to grow by the order of 5 to 6 %.

The outlook for air traffic and the airports in 2000 is fair. At this moment it seems as though the collective bargaining contracts that have been signed exceed productivity growth in the industry. This might cause slight price pressures, because hardly anyone wants to water down the service standards which have been achieved, and in various sectors there is pressure for a number of reasons rather to raise the number of staff than reduce it. Of course, wage levels can exceed productivity growth for one or two years, but over the long term this is unendurable. This fact is widely understood among the entire staff of the Civil Aviation Administration.

Mikko Talvitie
Director General



The Civil Aviation Administration

I N B R I E F

We provide and develop safe, competitive airport and flight navigation services as well as the supporting commercial operations, to an internationally high standard

we maintain the network of Finnish airports and the air navigation system

our customers are suppliers to the air travel industry and air passengers

we are the official Finnish aviation authority

we are responsible for the country's air safety operations as well as air traffic policy, in conjunction with the Ministry of Transport and Communications and the Ministry of Foreign Affairs

we are a commercial enterprise financed by our users, and we act independently. The Council of State sets the operational and profit targets for the Civil Aviation Administration.

H i g h l i g h t s o f

1 9 9 9

	1999 1000 FIM	€	1998 1000 FIM	€	change %
Turnover	1 103 176	185 541	1 080 997	181 811	2 %
Operating costs	794 790	133 674	746 098	125 485	7 %
Operating profit	88 142	14 824	101 058	16 997	-13 %
Result for the accounting period	84 970	14 291	95 588	16 077	-11 %
Investments, total	567 248	95 404	463 083	77 885	22 %
Land areas	39	7	2 420	407	-98 %
Machinery and equipment	177 234	29 809	109 662	18 444	62 %
Airports	194 343	32 686	160 633	27 017	21 %
Buildings	185 409	31 184	183 327	30 833	1 %
Other investments	10 223	1 719	7 041	1 184	45 %
	number		number		
Passenger movements, total	10 211 075		9 965 443		2 %
Domestic traffic (dep+transfer)	2 871 689		2 972 758		-3 %
International scheduled traffic (dep+arr+transfer)	6 033 510		5 652 995		7 %
International charter traffic	1 305 876		1 339 690		-3 %
International, total	7 339 386		6 992 685		5 %
Other traffic	11 908		13 488		-12 %
Flights, total	350 880		357 036		-2 %
Domestic traffic	70 475		78 253		-10 %
International traffic (scheduled+charter)	108 198		104 118		4 %
Overflights	14 784		17 828		-17 %
International flights, total	122 982		121 946		1 %
Other civil flights	113 735		109 872		4 %
Military flights	43 688		46 965		-7 %
Accum. staff working years in 1999	1 755		1 722		2 %
Airports	1 255		1 260		0 %
Air navigation services centers	131		123		7 %
Head office	246		228		8 %
Internal service units	123		111		11 %

1 3 m i l l i o n

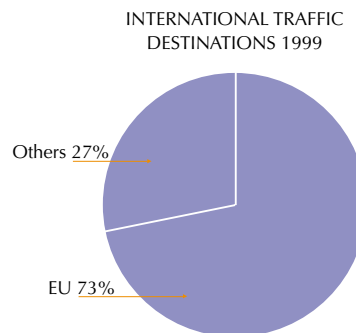
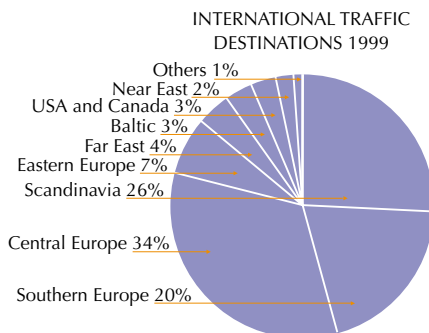
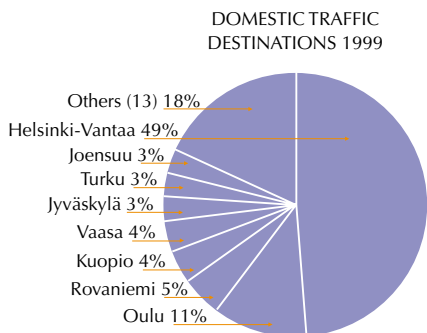
A I R P A S S E N G E R S

More than 13 million passengers passed through the CAA's 25 airports during 1999, representing a growth over the previous year of about one percentage point. The airports showing the biggest growth in air transport were Tampere-Pirkkala (15 %), Rovaniemi (6 %) and Oulu (5 %). The number of passengers at Helsinki-Vantaa airport rose by 2 per cent over the previous year, amounting to 9.6 million.

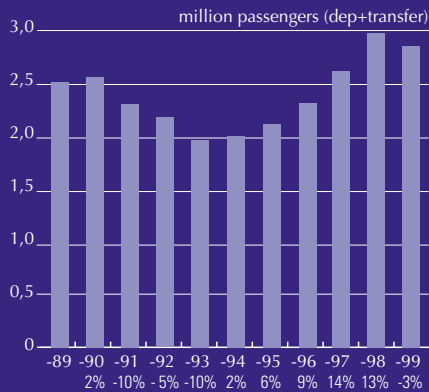
The number of passenger flights in Finland amounted to 10.2 million, which was 2 per cent higher than in 1998.

The number of international passenger flights rose by 5 per cent over the previous year, to 7.3 million. The number of passengers on international scheduled flights rose by 7 per cent to 6.0 million, while the number of passengers using international chartered flights fell by 2 per cent to 1.3 million.

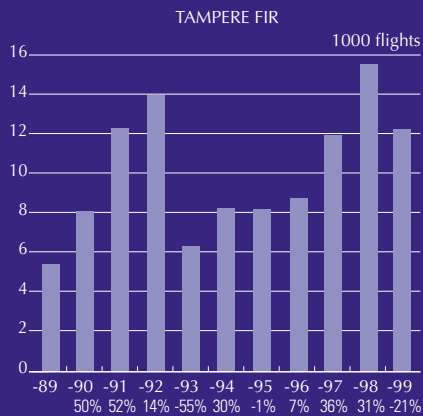
The number of domestic passenger flights fell by 3 per cent to 2.9 million, the reason being the air traffic controllers' strike during the early spring, when domestic flights were cut back significantly. The airports that witnessed most growth in domestic transport were Oulu (up 9 %) and Tampere-Pirkkala (up 5 %).



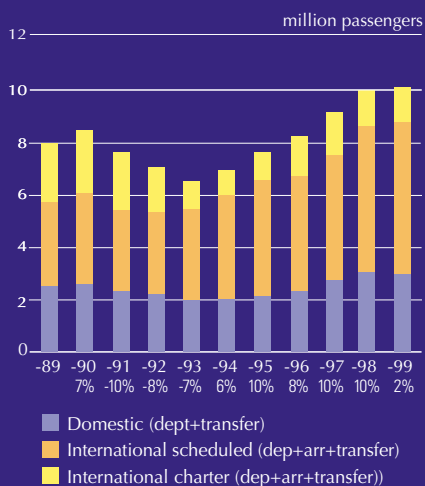
DOMESTIC SCHEDULED TRAFFIC 1989-1999



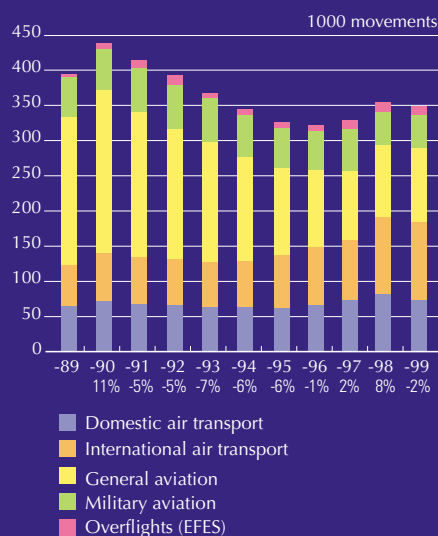
OVERFLIGHTS 1989-1999



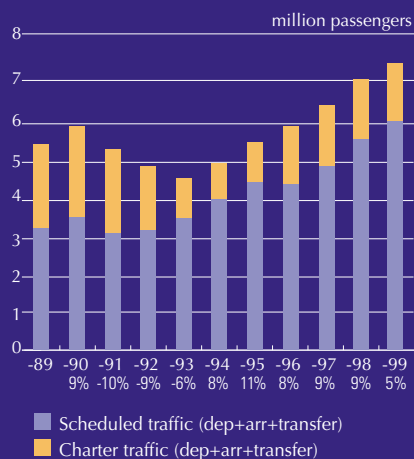
AIR TRANSPORT 1989 - 1999



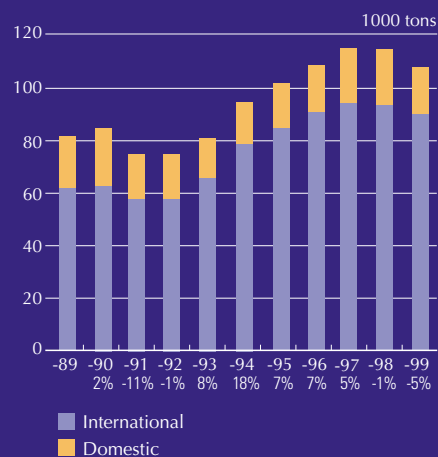
MOVEMENTS 1989 - 1999



INTERNATIONAL TRAFFIC 1989-1999



FREIGHT TRAFFIC 1989 - 1999



“Although we come from old seafaring stock, good flight connexions are vitally important for us Alanders.”>



The Åland

approach

i s e a s y

Åland is a familiar stopping off place for those travelling to Sweden by sea, but you can also reach the island province by air - in fact this has been possible since 1937 when Mariehamn airport was built. The new president of the provincial government got to know the airport during his student years, when he could take cheap student flights to Turku. Now, 20 odd years later, Roger Nordlund arrives at the airport about once a week, flying on business to Helsinki, Stockholm or Brussels.

“Although we come from old seafaring stock, good flight connexions are vitally important for us Ålanders, for psychological reasons, as well,” says the young president. “If neces-

sary we can quickly get by plane to a hospital in Turku, and good flight connexions are essential for business representatives. Above all, the airport enables tourists and conference visitors who are used to flying to come to our islands.”

These peaceful islands often play host to Nordic and international seminars, while new tourists are lured here from continental Europe to fish or perhaps play a day's golf.

“Åland is a growing and developing community and we have tourism to thank for our well being,” Nordlund says. “And nowadays Ålanders themselves travel a lot, too. I hope their needs are taken into account as the airport develops.”



AIRPORTS 1999

	PASSENGERS		LANDINGS		
	Domestic	International	Air transport	Military aviation	Others
Helsinki-Vantaa	2 803 097	6 760 931	75 156	1 059	3 307
Oulu	633 389	56 195	6 600	1 241	3 120
Rovaniemi	294 110	52 299	2 839	6 117	3 850
Turku	186 789	158 209	7 517	549	9 949
Vaasa	207 532	105 719	6 043	504	3 191
Kuopio	250 003	12 436	2 981	6 073	2 100
Tampere-Pirkkala	119 283	103 746	5 042	6 525	7 188
Jyväskylä	189 140	20 005	3 558	3 462	6 860
Joensuu	152 979	8 507	1 727	74	2 336
Kittilä	110 128	17 808	897	382	525
Kruunupyy	112 405	5 380	1 924	590	1 856
Ivalo	111 378	3 949	799	331	447
Mariehamn	104 240	9 436	3 449	0	1 473
Kajaani	111 056	839	1 030	234	998
Kemi-Tornio	99 809	635	1 241	19	1 430
Kuusamo	84 282	909	700	19	176
Pori	55 469	20 055	2 308	102	12 715
Lappeenranta	62 288	4 067	2 235	104	3 263
Savonlinna	44 467	2 905	1 097	15	307
Varkaus	31 275	220	1 154	13	511
Enontekiö	3 718	3 470	82	0	6
Helsinki-Malmi	1 301	169	37	123	39 800
Kauhava	138	27	35	12 008	609
Utti	23	0	3	1 541	641
Halli	10	5	3	2 603	393

AIR NAVIGATION SERVICES CENTRES 1999

	CONTROLLED FLIGHTS	OVERFLIGHTS
South Finland (Tampere)	215 260	12 282
North Finland (Rovaniemi)	35 799	2 502

I m p r o v e m e n t s i n

MANAGEMENT AND OPERATIONS

A NEW MODEL FOR BETTER MANAGEMENT

The CAA has been operating under a new management model since the beginning of 1999. This consists of three separate management teams - **the business operations board, the safety board and the environmental affairs board**. Although some of the same personnel in fact work in more than one team, this three tier arrangement has made for clearer working and given the senior management of the CAA the opportunity to become more deeply familiar with the matters being dealt with. The Director General's responsibility for the entire operations of the Civil Aviation Administration is reinforced by the fact that he is the chairman of each executive.

The business operations board deals with the CAA's general management issues, their development and the quality of services. The safety board, or the committee for safety and quality, takes care of safety management for the entire organization. The committee's tasks include analysis of exceptional situations, drawing up conclusions and initiating any resulting measures that might be necessary. The committee makes sure that the various units of the CAA are audited. In addition it prepares approval for new systems. The approval proper is undertaken by the Air Safety Authority.

The environmental affairs board is primarily responsible for the management and supervision of issues relating to noise and emissions at the airports. During 1999 the board concentrated on developing an environmental management system. This system is being created in stages and will be completed to a certain extent during 2000.

SAFETY MANAGEMENT THROUGHOUT THE ORGANIZATION

Safety management at the CAA extends to all its operative units - the airport and air navigation departments have their own subordinate management teams and every airport and air navigation centre unit has its own safety team. Information and analysis travels quickly, efficiently, and in all directions within the organization.

The Civil Aviation Administration's safety management system is the proprietary system of the service provider, that is, the company that provides the air navigation and airport services. It is separate from the obligatory supervision handled by the CAA's official body, the Flight Safety Authority. Cooperation is close, however, so that important safety information can be exchanged rapidly. The CAA is constantly improving its safety management system as a normal part of its work.

An important part of safety management is maintaining a low reporting threshold, that is, we try at all costs to avoid accusations when exceptional circumstances occur, and we encourage our staff to make reports, if necessary even about themselves. Occurrences are treated seriously but with understanding. The CAA is in the business of safety, and does not deliberately take risks, either as an organization, a team or a unit, nor does it make compromises when it comes to safety.

The safety and quality executive makes sure that the Civil Aviation Administration analyses all occurrences and sees to it that all situations requiring special attention are dealt with within a week of the event at the latest. Our aim is to use the safety management sys-

tem to ensure that no more than 40 safety irregularities occur each year as a result of the organization's own activities, and that none of these causes any immediate danger to air traffic.

MORE EFFECTIVE FINANCIAL REPORTING

We moved into a new era of reporting when the CAA's financial department adopted a new reporting program, which will gradually be extended to the whole organization. This program speeds up and eases reporting by offering more efficient means for compiling, distributing and analyzing data.

Pilot systems for traffic, financial and personnel reporting were completed by the beginning of the year. The work will continue with refinements to current reporting bases and where necessary with the production of new traffic, financial and personnel administration reports.

THE CIVIL AVIATION ADMINISTRATION ON THE INTERNET

The Civil Aviation Administration is constantly improving its Internet services, with an eye on the needs of both airline passengers and the partners we cooperate with. The excellence of the Internet as a communications tool particularly during exceptional circumstances was felt during the air traffic controllers' strike, for example, when bulletins had to be issued to the media quickly and comprehensively.

The Civil Aviation Administration's Internet pages include home pages for CAA airports, showing their services and contact numbers, up-to-date information on the CAA, job vacancies, and various air traffic related statistics. There are also plenty of useful links for flight passengers.

Information on arriving and departing flights at Helsinki-Vantaa airport is updated on the CAA's web pages every minute, i.e. at the same pace as the airport monitors themselves. We hope to get corresponding information for other CAA airports onto the Internet in the near future.

Year 2000 pages were opened in early autumn 1999 to provide information on the CAA's preparedness and measures for the year 2000 problem.

Weather service was opened in spring 1999. This service is provided by the Civil Aviation Administration and Weather Service Finland Oy, to furnish information that can be of use to flight crew and passen-

gers alike. Weather service, which is open to everybody, presents the prevailing weather situation over Finland in real time, and also provides information on the weather and temperatures in European destinations. These bulletins are updated every half hour.

The purpose of the **flight weather** service, which is especially for pilots, is to make it easier for them to draw up their flight plans. In addition to providing aviation weather observation and forecasts the service also gives information on rainy areas, for example, with radar images updated every half hour.

The **image bank** is another new electronic service which allows anyone interested to make use of the Civil Aviation Administration's picture material.

The **environment site** opened on the Internet in January 2000. It provides up-to-date information on the environmental effects of air traffic and the CAA's environmental protection work. Special issues relating to Helsinki-Vantaa airport are also dealt with on the web.

The Civil Aviation Administration's Internet address is www.ilmailulaitos.com

SMOOTH MILLENNIUM CHANGE - FOR AVIATION TOO

The Civil Aviation Administration's project for ensuring the smooth functioning of its systems and equipment during the change of millennium was begun in good time, in 1997. About 250 matters which required inspection or correction were discovered during the inventory phase, of which about 90 were critical from an operational point of view.

The Year 2000 project group worked in cooperation with Finnair, IATA, the international air transport association, and ICAO, the international civil aviation organization. IATA representatives visited our head offices and Helsinki-Vantaa airport to inspect our organization for Year 2000 compliance in April and June 1999.

During the millennium changeover the Civil Aviation Administration's management and special operative emergency teams stood by at head office and the main airports throughout the night to ensure that everything ran smoothly, and all the airports were prepared for action in the event of any malfunction. In the event, the year changed safely and without any irregularities of any kind - thanks to the extraordinarily thorough preparatory work.



P a s s e n g e r a n d c o m m e r c i a l

S E R V I C E S



Almost every passenger terminal at the Civil Aviation Administration's 25 airports has been renewed during the first nine years of its operations as a commercial company, while some airports, such as Kittilä, have already undergone their second round of expansion and renovation. In line with the CAA's objectives, the standard of Finnish terminals now matches the volume and quality of air traffic, and passengers regard pleasant terminals as being an integral part of the functioning chain of air travel services.

The importance of airport service quality has come to the fore at local level, with the airport becoming the hallmark of a fully developed region, both for the region's inhabitants and its business representatives. Local authorities have been willing to invest in their own airports, and since the government has also begun to regard them as valuable centres for promoting local business and travel, it has been possible in recent years to carry out terminal renovation work on the three tier principle. This means that the financing has been provided by the Civil Aviation Administration, the local authorities around the airports and the ministry of labour.

T h e a i r p o r t

A T T H E T O P

The Civil Aviation Administration's flagship and Finland's primary airport, Helsinki-Vantaa, has for the past couple of years come out close to the top in IATA's (International Air Transport Association) quarterly passenger survey. In May 1999, IATA published a summary of worldwide opinions sampled in 1998, in which Helsinki-Vantaa emerged as the world's number one airport among business and leisure travellers alike.

Even during the temporary building work disruptions, Helsinki-Vantaa scored the highest points among respondents for its pleasant atmosphere and ease of moving around. It also came top in the sections covering signs, quality of service, safety, restaurants and shops. Nineteen items were covered in all, of which Helsinki-Vantaa came out best in 13.

Work began on improving the quality and services of the airport in 1993, when it was decided to make Helsinki-Vantaa a high quality European airport. Underpinning the endeavour was extensive cooperation with the airport staff and all the other service providers at the facility. The first phase of the expansion of the international terminal was completed in 1996, which added significantly to passenger comfort. Helsinki-Vantaa's placing in the international surveys began to rise, so that by 1997 it was in fact Europe's number one and the world's second best in the IATA survey.

INTERNATIONAL TERMINAL RENOVATION COMPLETED

The expansion to the international terminal at Helsinki-Vantaa represented the biggest investment in the CAA's history. The total cost of the second phase, including spending on ground transport systems amounted to FIM 435 million, and the work was com-

pleted in summer 1999. The doors of the new facilities were opened to the public at the beginning of November.

The expansion work adds almost 18,000 m² to the airport. The first phase of the venture saw the completion in 1996 of new departure gates with passenger bridges, shopping facilities and a congress centre on the terminal's air side. Now, three years later, we have new departure and arrivals halls, a connecting passageway between the domestic and international terminals, office facilities and new ground transport arrangements. As a result of the expansion, the international terminal can now handle nine million passengers a year.

The expansion work was awarded soon after the opening, as the Steel Building of the Year. Steel, glass and a granite floor in varying shades of grey create a relaxing mood in the triangular departure area of the new space, providing a suitable counterbalance for the busy traveller. The departure hall is mainly used by Finnair and its partners and it can cater for 1,200 passengers an hour.

For the time being, all passengers arriving from abroad pass through the arrivals hall that lies below the departure lobby. To their surprise, they are greeted by a display above the baggage conveyors that deals with forests and trees. It was finished just before the EU summit hosted by Finland in December. The exhibition, arranged by Suomen Metsäyhdistys, the Finnish forestry association, is on show until the end of 2000 as part of the Helsinki City of Culture programme.

The departure hall includes a sales kiosk and currency exchange. New services on the arrivals floor are a hamburger restaurant, an airport information point and a currency exchange point. Airport car rental services are located in the passageway connecting the in-





ternational and domestic terminals, at the international terminal end.

Building work goes on into the new millennium at Helsinki-Vantaa, with the alterations necessary as a result of the Schengen agreement, which comes into force in 2001, already begun in the international terminal. Next it is the turn of the domestic terminal for expansion.

TRAFFIC ARRANGEMENTS

Traffic and parking arrangements at Helsinki-Vantaa airport were renewed in conjunction with the expansion of the international terminal. The extensive construction work was completed in July, although the approach roads laid by the highways board were already opened for traffic in late June.

These new traffic arrangements, with their traffic signs and signposts have made it easier for motorists as well as pedestrians to move around in the airport area. A new parking road leads off from Lentoasemantie about 200 metres before the domestic terminal to all the airport car parks (P1-P4), which relieves congestion outside the terminals.

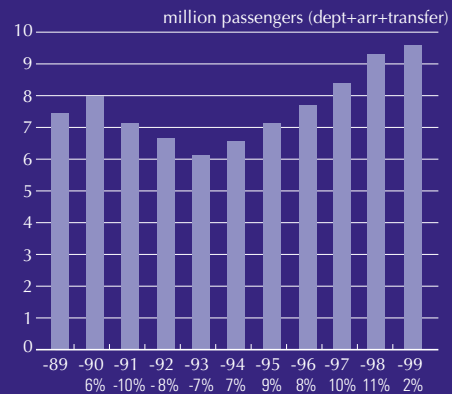
The forecourt to the international terminal has been given a stylish new look with new ramps and bridges. The taxi rank has been moved directly in front of the terminal, while buses have gained extra spaces as well as new covered platforms outside the terminal. Domestic passengers have also had their wish granted, with sheltered taxi access right in front of the terminal. Waiting and social facilities have also been provided for taxi drivers at the taxi rank.

NEW PARKING SPACE ON THE WAY

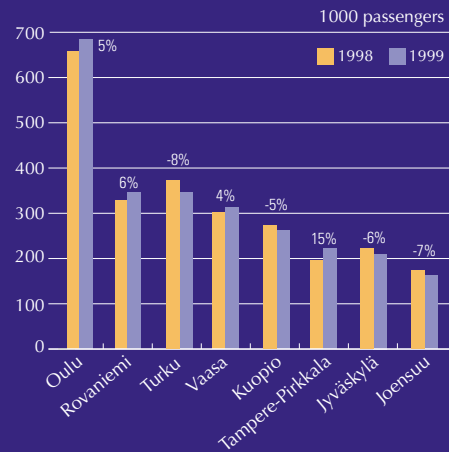
At present there is space for about 8,000 vehicles in the Helsinki-Vantaa terminal area, the remote parking area, and for the use of car rental firms and for staff. Because the constant increase in passenger volumes and jobs at the airport will soon lead to a shortage of parking space, the Civil Aviation Administration has decided to build a third car park. The work began in autumn 1999 and the building is scheduled for completion in autumn 2000.

The new facility will be able to accommodate almost 2,000 cars and will be available to cater for airline passengers as well as CAA and Finnair staff. The seven story car park will be on Lentäjäntie and will have direct access to the office building next door.

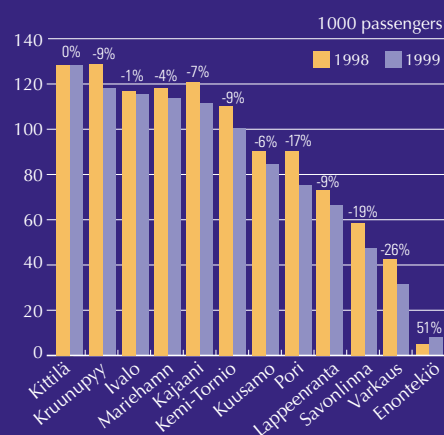
PASSENGER TRAFFIC AT HELSINKI-VANTAA AIRPORT 1989 - 1999



PASSENGER TRAFFIC AT AIRPORTS 1998 - 1999



PASSENGER TRAFFIC AT AIRPORTS 1998 - 1999



Direct to the world

from eastern Finland



“Thanks to its international activities, Varkaus is a lively industrial town where new technology has achieved a firm foothold,” says Heikki J. Hiltunen, European marketing director for Honeywell-Measurex, which manufactures industrial automation systems. “The pure natural surroundings, the lake-land scenery and the low cost of living are what attract skilled people here,” he says.

“Our international business has customers all over the world. I myself put in about 130 days a year travelling, about 100 of which are spent abroad. I fly from Varkaus or from Kuopio, which is an hour’s drive away, to Helsinki, and then take an onward flight to perhaps Brussels, Frankfurt, Zurich or San Francisco. Most of the flying we do for the company is international.

“We bring in a lot of clients to Varkaus to view our production

methods and our products. We organize a couple of major customer events a year, and members of our Group management often pay us a visit. The Varkaus production and development unit also trains a couple of thousand customers and Honeywell employers from all over the world each year. So for such a large group of visitors the image of our “own” airport is also important to us. We want to greet our visitors in style and individually. The new Varkaus airport terminal opens up brand new opportunities for us to do that.

“We are willing to take part in improving the airport and its flight connexions in collaboration with other firms working in Varkaus and the town itself. Personally, I would love to see a major airport south of Kuopio serving a large area, which would have direct flights to some hub airport in the middle of Europe...”

“Because of the large number of visitors we get the image of our “own” airport is important to us.”



LIGHT AND SPACE AT TURKU AIRPORT

The expansion of Turku airport was carried out on the three tier principle, with funding from the Civil Aviation Administration, the surrounding local authorities and the ministry of labour. The total cost of the work was about FIM 24 million.

Completed in June, the expansion provides the airport with even better facilities for serving passengers and local businesses. In particular, industry and the higher educational establishments of the Turku area need the fast overseas connexions and cargo services. In terms of passenger numbers, Turku airport is the second busiest in the country for overseas traffic. In 1999, nearly 345,000 passengers passed through the airport, of whom almost half were making international flights.

The terminal expansion increased the public areas by almost half, while at the same time the domestic and international passenger streams gained their own, distinct lanes. The old public areas were refurbished, while the Lentoravintola restaurant and the duty free shop were renovated. Extra check-in desks have been provided, the baggage handling system has been upgraded and the airport has been given up-to-date VIP facilities.

IVALO AIRPORT IS "EU FIT"

The Ivalo airport expansion and renovation project was also carried out with three tier funding, in which the Inari local authority, the Ministry of Labour and the The Civil Aviation Administration took part. The overall cost was FIM 15 million and the work was completed in time for the EU conference in Inari in July.

Passenger numbers at Ivalo have grown steadily since the 1970s and the airport has in fact been enlarged twice before, in 1988 and 1994. The expansion just completed raises its annual capacity to 150,000. In 1999 116,000 passengers passed through Ivalo airport.

The airport building has been given more space for departing and arriving passengers, and the security check and baggage handling areas have also been enlarged. The air navigation building has been overhauled and provided with a new, higher air traffic control tower.

TRAVEL FIRMS WORKING WITH THE AIRPORT AT KUUSAMO

Kuusamo represents a whole new way of thinking when it comes to making airport improvements. With an open mind, it has set out to work together with the tour operators of the region, with the aim of attracting more travellers to Kuusamo. An example of this fruitful cooperation is the tourist building next to the airport, from which the operators can begin their tour programmes as soon as their clients arrive at the airport.

There are numerous tour operators in the Kuusamo area which organize various kinds of adventure packages for companies as well as individual tourists, and the edifice completed in June has been specifically designed for the requirements of these operators. Several travel firms can work simultaneously from the same two storey building. There are facilities for receiving guests, sauna and conference areas as well as dressing rooms for changing clothing. The snow mobiles and husky sledges can set out straight from the parking areas set aside for them.

The Kuusamo tourist building was financed jointly by the ministry of labour and the Civil Aviation Administration, for a total cost of FIM 3.0 million. The Civil Aviation Administration rents out the building to the travel firms and various bodies. If the Kuusamo experiment proves positive, the CAA is interested in the possibility of forging similar cooperative ventures with local travel firms at other airports, too.

The expansion to the Kuusamo terminal was inaugurated in February, with more space being provided for check-in, restaurant services and the souvenir and gift shop. The number of passengers using Kuusamo has grown by almost 20 % a year in recent years, with more than 85,000 people passing through the airport in 1999.

BUILDING STARTS AT ROVANIEMI AND VARKAUS

Building projects were initiated at both Rovaniemi and Varkaus airports during the financial year, and the new terminal building was completed at Varkaus in February 2000. A new air navigation building with control tower will be finished later in the spring. The

number of passengers using Varkaus airport during 1999 was about 31,500.

Expansion and renovation work began in November on the Rovaniemi airport building, which was erected in the early 1990s. The building will gain almost 3,000 m², while about 4,000 m² are being refurbished. The total cost of the project is FIM 28.5 million, with financing from the Employment and Economic Development Center for Lapland, European Regional Development Fund, the surrounding local authorities and the Civil Aviation Administration. The venture will be completed in November 2000.

DUTY FREE ENDS - A NEW STYLE OF TRADING BEGINS

Duty free sales for travellers within the EU ended at the beginning of July, when the relevant legislation came into force. The Civil Aviation Administration prepared for the abolition by actively influencing the preparation of the new legislation and by negotiating with the customs and taxation authorities on the flexible application of the rules.

In order to maintain the quality of service at airport shops in the new situation, the Civil Aviation Administration asked for and received Ministry of Social Affairs and Health confirmation of an interpretation of the alcohol legislation allowing duty free shops at airports to continue selling alcohol at the taxed price to passengers leaving Finland. Thus the opportunity to buy such beverages was maintained even for those travelling within the European Union.

The abolition of duty free within the EU means in practice that the Civil Aviation Administration has to pay VAT and excise on those products sold at airport duty free shops to travellers within the European Union.

The shops at Helsinki-Vantaa airport occupy a central place as far as the CAA's business activities are concerned. On the other hand, it is at Helsinki-Vantaa itself that we have been best able to adapt to the change because the majority of the traffic between Finland and countries outside the EU passes through this airport. As a result of careful preparation, market planning, and cooperation between the airport and the other companies working there, the effects of the abo-

lition of duty free sales have turned out to be somewhat less than expected. In particular, the introduction of sales of taxed alcohol and cigarettes has alleviated the problem.

We have endeavoured to improve the standards of Helsinki-Vantaa airport outlets by offering sales of cosmetics, perfumes and confectionery to arriving passengers, too. During the autumn, the CAA opened a new shop for domestic passengers at Helsinki-Vantaa.

The effects of the change, however, have been radical for the shops at the provincial airports (Rovaniemi, Oulu, Kruunupyy, Joensuu) because most of the traffic through these is with European Union countries. Duty Free sales are still available at the airports to passengers travelling between mainland Finland and Maarianhamina (Mariehamn) in the Aland Islands.

KAJAANI IS AIRPORT OF THE YEAR

Kajaani was voted Airport of the Year for the second time, having first won the honour in 1994. The selection is based on passenger surveys carried out every year in collaboration with Finnair. Kajaani constantly rates highly in passengers' affections, its best features, they say, being the service-minded attitude of the staff there as well as the general appearance and comfort of the airport.

Veli-Pekka Pitkänen who has been head of Kajaani airport for five years gives credit to his employees: "They are highly committed to their work and their effort in the day-to-day running of the airport is inestimable. They do a phenomenal job, be it in air traffic control, maintenance, terminal services or in administration."

Designed for 150,000 passengers a year, the Kajaani airport facilities are cosy and tidy. This number is expected to increase with the introduction of charter flights in the spring of 2000, while new passengers are being lured to Kajaani through a joint marketing project by the airports of the Nordic Arctic region, which is aimed at international travel operators.

“In order to succeed, a town has to be able to offer the business community a wide range of transport services.”



Speed

is an asset

says city manager Armas Lahoniitty as he pays tribute to Turku airport's excellent links with Helsinki, Stockholm and Copenhagen. "Flight connexions are a major advantage in the present competition between Finnish and European cities. In order to succeed, grow and develop in this competition, a town has to be able to offer the business community a wide range of transport services, among other things.

"We are currently re-creating the Turku region as an important logistical centre, in cooperation with businesses, the higher educational establishments and the surrounding local authorities. Our aim is to make even better use of the already excellent shipping, railway and road connexions, to expand air cargo traffic and to combine all the various forms of transport. The Turku and Naantali harbours, the new motorway, the electrified railway and the technically highly advanced airport are all helping us to achieve this. In addi-

tion, a large tract of land has been reserved around the airport for freight terminals and so on.

"Turku's strong areas of expertise — for which rapid travel and transport services are also extremely important — are in the medical and foodstuffs industries, biotechnology, and information technology, as well as in the research and training these activities need. Our university lecturers and researchers as well as the more than one thousand overseas students also need regular flight connexions."

The city manager's wish list for new direct flights includes London and the other Baltic states, with which Turku, as an active player in the region wishes to upgrade its contacts.

"The airport has been an important element for Turku in an historic sense, too," Lahoniitty points out. "After all, it was here, at Artukainen, that Finland's first land-based civil airport was built in 1935."





Apron and manoeuvring area

S E R V I C E S

Development of maintenance equipment in collaboration with Finnish equipment manufacturers is part of the Civil Aviation Administration's everyday work towards promoting air safety. Finland is one of the most northerly countries in the world to undertake regular, large scale air traffic, and the protracted snowy winter, which includes severe weather variations, sets its own demands on maintenance work and the equipment that handles it. It is the CAA's goal to ensure that no delays or hazardous situations whatever occur as a result of maintenance work.

The Civil Aviation Administration has been involved in developing maintenance equipment since the 1960s, and its

cooperation with Finnish manufacturers ensures that the design of the machinery takes account of the special needs of CAA airports; the Finnish conditions subject this equipment to constant hard wear and tear. For example a snow blower might suffer as much punishment in a single winter in Finland as the equivalent machine at a continental European airport would throughout its entire lifetime.

The equipment manufacturers benefit from their cooperation with the Civil Aviation Administration, because we test the machines for them and we can give them expert advice which they can make use of in their exports too.

RUNWAY BUILDING

Helsinki-Vantaa's third runway is being built to accommodate increasing amounts of air traffic. When the new runway becomes available at the beginning of 2003, it will increase the capacity of the airport from 43 operations (take-offs or landings) an hour to more than 70.

Building was begun at the beginning of 1997 and the work completed so far mostly includes the foundations and foundation reinforcement. More than 80 % of the earth moving has been carried out.

The embankments used for compressing the layers of clay that lie in the soft ground beneath the manoeuvring areas were completed during the summer. The process takes two years, after which the embankments can be removed and work can begin on the subsurface drains, storm drains and hard-standing. Reinforcing the areas of soft ground therefore dictates how long the entire project will take.

All the manoeuvring areas on load bearing ground will be entirely constructed during the compression process. Building began in autumn 1999 with the piping work, and a third of the load bearing area will be completed during 2000.



A FLURRY OF BUILDING

It was desired that the building of the taxi ways for the new runway should take place during the quietest season for air traffic, so the main runway at Helsinki-Vantaa was closed at the midsummer holiday for seven weeks. Now there will be no need to disturb the flow of traffic when the new manoeuvring areas are joined up to the present ones.

The construction work involved building six new taxi ways at the airport, renewal of the approach area and runway lights for the instrument landing system and thorough overhaul of the asphalt surfacing. A total of 40,000 m² of manoeuvring space was built. A pipe was also run beneath the main runway to contain the cables, water pipes and pressure drain for the third runway. The work was carried out around the clock and the project was completed to the hour amid an extremely tight schedule in the middle of August.

The strict timetable was necessary partly in order to restrict the noise levels caused by the closure of the main runway, to as short a time as possible. Even so, residents particularly in the Tikkurila area understandably regarded the noise caused by these exceptional circumstances as a nuisance. One important extra benefit of the parallel runway is that in future it will not be necessary to use the side runway (which is more prone to noise) constantly, even when the main runway is being re-surfaced.



A i r n a v i g a t i o n

S E R V I C E S

Air traffic safety related indicators as a whole are moving in a positive direction in the air navigation sector. Although the total volume of traffic increased, the number of incidents or occurrences concerning commercial aviation as registered by the aviation authorities declined in comparison with the year before. The Civil Aviation Administration's safety management system plays an extremely important role in the maintenance and development of air traffic safety.

A vital area of safety management, for both air navigation and airport sectors, is the internal reporting and feedback system. It is this that rapidly provides all the

relevant personnel at the CAA with the information about irregularities, observations and necessary improvements concerning air traffic safety. This reporting and feedback system, known as PHI, has been in use with the air navigation services for more than two years and has proved itself in international comparisons to be exceptionally functional and highly advanced.

Designed by the Civil Aviation Administration, the system has a low reporting threshold and provides plenty of practical material for improving operations and eliminating problems.

EVOLVING SAFETY MANAGEMENT

If it can be assumed or has been demonstrated that the normal margin of safety has not been reached because of an observed irregularity, the aviation authorities require that an incident report be made on the matter. The incident report handling system, where it relates to the CAA's operations, has been developed and the follow-up system improved during the financial year. The system is now more comprehensive and is fully in line with the principles which the air navigation services have decided to adopt throughout Europe.

As regards safety management, the air navigation services have adopted a new kind of operational model, the safety review. This is carried out when it is intended to introduce critical new systems or procedures. The purpose of the safety review is to identify possible error situations and their consequences. The more serious the consequences that can be expected, the more comprehensive is the safety review carried out during the various phases of design, preparation and introduction of the new system.

During 1999 a safety review was carried out in conjunction with the modifications to Helsinki-Vantaa and Southern Finland air space, and the introduction of the new air traffic control radar system at Rovaniemi.

AIR SPACE REFORM IMPROVES SAFETY

Air lanes and procedures concerning Southern Finland and Helsinki-Vantaa airport airspace were changed in July. The new procedures will ensure effective and flexible management of the increasing amount of traffic as well as air safety at Finland's primary airport.

The changes came into effect according to plan. The air lanes were altered to mainly one way systems, enabling aircraft to reach their cruising altitudes more quickly. Landings are also carried out more smoothly. The reforms are particularly helpful to the operations of Helsinki-Vantaa air traffic approach control because the regional controllers at Tampere can arrange incoming flights into a queue and feed this into the approach sector as and when the runways are able to accommodate the aircraft. Regional air traffic controllers now have a new computer programme to help them, which automatically calculates the aircraft approach order at Helsinki-Vantaa airport.

The aim of the air space reform is also to reduce the delays experienced by passengers. Statistics for Helsinki-Vantaa airport for the second half of the year

show this to have been successful, and since its introduction in July we have been able to control the delays to air traffic extremely well.

DELAYS IN DECLINE

There are three main causes of air traffic delays in Finland: traffic regulation in Europe, regulatory measures by area traffic controllers in Finland or congestion at approach or aerodrome control, which may be caused by bad weather at the airport. Weather conditions, particularly in winter, which the Civil Aviation Administration can do little to help, account for some of the delays. It is the goal of the CAA, weather permitting, to see that air traffic over Finland needs no regulation at all.

According to European comparisons, air traffic delays over Finland are among the lowest. Whereas in 1999 about 21 % of flights in Europe were delayed (17 % in 1998), the corresponding proportion for Finland was 8 % (9 %). Of the delays occurring in Finland, only 1.5 % (3.5 %) resulted from regulatory measures from Finland itself, while the rest were caused elsewhere in Europe.

The July peak in the delay figures was caused by a computer fault at the Southern Finland air navigation services centre, which was not related to the air space reforms underway at the time.

The number of delays in Finland caused by European air traffic control measures were at the same level as the previous year. An increase in delays as a result of the Kosovo crisis was reflected in Finland between March and July.

PREPARING FOR THE THIRD RUNWAY

The third runway for Helsinki-Vantaa airport is the biggest single development project in the CAA's history. The aim is to open the runway, which is currently under construction, to traffic at the end of 2002. The air space reform has also helped in preparing for the opening of the new runway — reform has, for example, helped in the planning of flight procedures and the noise abatement programme. The CAA has purchased a simulator especially designed to help in the analysis of various air traffic alternatives.

The simulator can be used for planning airport activities as well as air space management. This powerful and extremely rapid device can create models even of large volumes of traffic in just a few minutes. For example, it can calculate whether there is enough spa-

ce for aircraft in the apron area and can tell when more space has to be made available. It can also quickly assess whether flight procedures are functioning properly and whether air traffic control methods are effective amid an increasingly complex air traffic environment.

ROVANIEMI GETS EUROPE'S MOST MODERN RADAR

A new air traffic control radar system, representing Europe's most up-to-date technology, went into service at the Northern Finland air navigation services centre at Rovaniemi in December. It forms part of the FATMI programme for the gradual renewal of Finland's entire air navigation equipment and programs.

The system at Rovaniemi consists of radar and flight planning management programs, equipment and work stations. The system comes with six radar stations, which provide air traffic controllers with a more comprehensive picture of air traffic over northern Finland. The system has been supplied by the French Airsys-ATM company.

AIR NAVIGATION ON A EUROPEAN SCALE

Finland's membership of the Eurocontrol system (the European Organization for the Safety of Air Navigation) is likely to become official in the spring of 2000, as soon as parliament has discussed and approved the matter. The Civil Aviation Administration has been participating in the organization's Europe-wide project for improving air safety for several years now. The most salient projects during the financial year

have been the redistribution of radio frequencies and the ACAS system for warning of mid-air collision hazards.

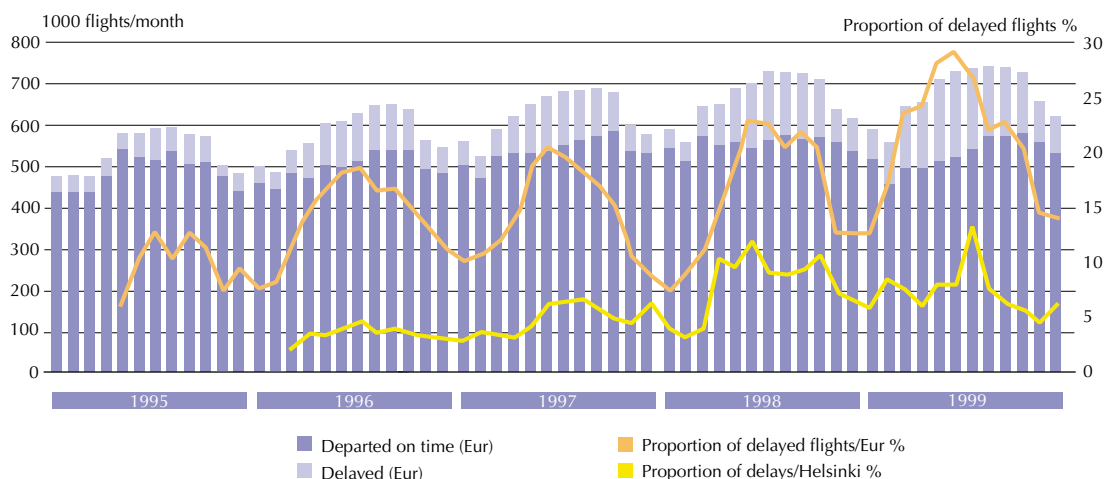
The new waveband distribution concerns VHF radio, which air traffic control uses for talking to aircraft. The new 8.33 kHz channel spacing made new, free VHF channels available so that necessary extra air traffic control sectors can be set up for the crowded air space over continental Europe, thus making better use of air space.

The use of radio sets equipped for the new channel spacing at certain altitudes became compulsory in seven continental European countries in October. Finland, together with the other Nordic countries and other countries on the European periphery, supports the decision but requires the new waveband sets to be used in its airspace only when an aircraft flies through Finnish airspace into the airspace of the continental European countries in question.

ACAS (Airborne Collision Avoidance System) is designed to warn of mid-air collision hazards, and began to be phased in at the beginning of 2000. Finland too, is observing Eurocontrol's decision on the transition phase and timetables.

The ACAS system is a supplementary safety net for air transport, which can prevent a hazardous situation becoming a mid-air collision: it warns the pilot in the case of a possible collision with an aircraft fitted with a transponder and gives instructions on how to avoid a crash. Under the Eurocontrol decision, operators are obliged to procure the necessary equipment and provide pilots with the appropriate training.

DELAYS CAUSED BY ROUTE REGULATIONS IN EUROPE AND HELSINKI, 1995 TO 1999





THE ENVIRONMENT

The Civil Aviation Administration has beefed up its environmental reporting by opening its own environment site on the Internet. This contains up-to-date information on the environmental effects of aviation and the CAA's work for environmental protection. The net also presents environmental issues particularly in relation to Helsinki-Vantaa airport. You can find this information at www.ilmailulaitos.com/ymparisto/

FEWER AFFECTED BY NOISE IN THE HELSINKI-VANTAA AREA

The Civil Aviation Administration has updated its noise assessments for Helsinki-Vantaa airport. The report calculated the effects of noise in the 1998 situation and made an estimate for 2000. It was possible for the first time to take advantage of possibilities provided by the GEMS aircraft noise and route monitoring system when calculating noise. The flight path material used in the simulation was based on the recorded data, and the results could be examined against noise measurements. The calculated and the measured noise levels for autumn 1998 are closely in line with each other.

In 1998 there were 43,000 people living within an area subject to more than 55 decibels of noise (L_{DEN}), which was less than half the equivalent number for 1990. The estimate for 2000 takes into account the flight path changes introduced in July 1999 and the noise suppression kits fitted to Finnair's DC-9-50 aircraft. It appears that the noise area will shrink by about 30 % and the number of residents living within the area affected by noise will fall by up to 50 %.

Noise levels at Helsinki-Vantaa will also be positively affected by a CAA decision which took effect in December 1999 forbidding takeoffs for noisy so-called noise level 2 type aircraft at night. In accordance with ICAO regulations this type of aircraft is to be removed from service completely by the beginning of 2002.

The main Helsinki-Vantaa runway had to be closed for repair for seven weeks during the summer of 1999, during which time aircraft noise increased temporarily in the direction of Tikkurila and in northern Helsinki.

NOISE LEVELS AT PARTNER AIRPORTS CHARTED

Noise assessments were prepared for Rovaniemi and Kuopio airports during 1999, which means that such assessments have now been completed for all airports working with the CAA and the Air Force. The results

will help local authorities in their area planning, for example. The extent of the noise-affected areas at both Kuopio and Rovaniemi airports is dictated in large part by the activities of the Air Force; the noise effects of civil aviation are minimal.

COLLABORATION CONTINUES WITH KUOPIO UNIVERSITY

The Civil Aviation Administration is continuing its work on developing a computing model for aircraft emissions in collaboration with Kuopio University. The aim of the work is to provide more reliable data on aircraft energy consumption and exhaust emissions over Finnish territory. The results of the measurements are published annually in conjunction with corresponding information for other forms of transport. (www.VTT.fi/yki/LIPASTO)

EMISSIONS AND THEIR EFFECTS, NOW AND IN THE FUTURE

In summer 1999, the UN's IPCC (Intergovernmental Panel on Climate Change) published the world's first report on the effects of specific industries on the atmosphere. The report examines the effects of air traffic emissions in a variety of scenarios up to 2050.

According to the study, carbon dioxide emissions from aviation account for about 2 % of those produced by mankind as a whole and 13 % of those produced by all forms of transport. Aviation accounts for 3.5 % of the warming caused by all of mankind. However, this proportion is expected to grow with the increase in traffic, despite improvements in aircraft efficiency. Thanks to aviation, the UV radiation strength in the northern hemisphere has fallen by about 0.5 %; at the same time, though, other human activity has caused a thinning of the ozone layer and an increase in radiation of 4 %.

During the year the CAA has also kept a close watch on developments in EU environmental regulations and on the dialogue over applying the Kyoto agreement on the atmosphere to aviation.

ENVIRONMENTAL HANDBOOK UNDERWAY

Assessing environmental effects is the cornerstone of the work the Civil Aviation Administration is carrying out on creating an environmental system. The environmental committee set up a working group to draw up an environmental management system on the lines of the ISO 14001 standard. A tangible outcome of this work is that an environmental handbook is now being compiled.

MORE COMPREHENSIVE WATER MONITORING

The airports department has drawn up a report on surface and groundwater monitoring at airports. Continual surface and / or ground water monitoring is underway at seven CAA airports. The report, which appears in the Civil Aviation Administration series of publications, includes water monitoring programmes plus a short review of the state of the water and the use of de-icing chemicals (glycol, urea, acetate) over a ten year period. The work also includes a plan for improving the current monitoring programme and for monitoring to begin at four airports.

At the behest of the North Karelian environmental centre, a study was carried out on increased nitrate levels in the groundwater at Joensuu airport, as well as the possibilities for reducing them. At the same time a programme was drawn up for monitoring the groundwater in the area around the airport. Joensuu airport stopped using urea, which contributes to nitrate levels, as an anti-skid agent in the spring of 1999.

PERMIT APPLICATIONS

The Uusimaa district environmental centre made a decision in December to extend the siting permit for Helsinki-Vantaa's new runway until the end of 2002. It was necessary to apply for an extension to the permit because of a transition provision under the health protection Act introduced on January 1, 1995. Under this provision, which is disadvantageous for long-term building projects, work specified in the siting permit

has to begin within five years of the enactment of the health protection legislation or the permit lapses. Because of the change in the legislation, the CAA has only three years to complete a building project that technically requires six years.

The terms of the siting permit include requiring the Civil Aviation Administration to compile reports on noise prevention and the spread of nitrogen oxides at Helsinki-Vantaa airport.

The decision by the superior Water Rights Court on the terms by which the run-off waters from Helsinki-Vantaa airport into the water table can continue, was handed down in October. At the same time a permit was granted for piping off run-off water from the area of the third runway and the necessary terms for the permit were set. These terms included the obligation to monitor the quality of surface and ground water in the vicinity of the airport and to inspect whether the embanked basin for treating the run-off from the third runway is functioning properly. The permit is valid until the end of 2007.

“It is important for the airport to know the local community’s strategy for organizing tourism.”



To Europe in traditional style

One of Kainuu's biggest problems at the moment is its declining population. "We have to get the appeal back," says provincial governor Hannes Kempainen of the Regional Council of Kainuu. "Actually there are signs of a return; some Oulu and Helsinki businesses are interested in working in this community and have noticed the skilled people we have here."

Alongside the traditional paper mills of Kainuu have arisen several new specialist electronics firms. Services are the primary employer but tourism is growing to become the true mainstay of the province. "Tourism offers the people of Kainuu the opportunity to stay in their own area, which is why one of our most important tasks is to increase entrepreneurial activity in this field too. We have just received EU funding for helping women entrepreneurs in the travel business, and our

partners in the project are Italy and Estonia!

"Kainuu offers tourists ten beautiful local districts, each replete with cliffs, forests and lakes. Russian tourists in particular are inspired to come here by charter flight to take advantage of the winter fishing. Our primary travel project, though, is concerned with skiing - and it's our goal to make Kainuu one of the world's best cross country skiing areas. The all-year practice 'ski pipe' at Vuokatti has been a success, so the next thing is to build a summer and winter chute for snowboarders.

"It is important for the airport to know the local community's strategy for organizing tourism, internationalization and logistics. When we want to discuss developing tourism with the travel organizers, the airport acts perfectly in the 'convener's' role."





P E R S O N N E L

The health and welfare of staff are important matters both for the employer as well as the employee. Awareness of resources, staff motivation, high work morale and a sense of development in the job all contribute to ensuring a safe and high standard of service for the CAA's customers. Our principles for promoting personal health and welfare are written into the occupational safety programme, our policy for maintaining occupational ability, the personnel strategy and into other

agreements and guidelines.

During the year the CAA renewed its operating model for psycho-social support in cases of accident or hazardous situations, a decision was taken on the use of the physical exercise budget and a wide-scale survey of staff morale was undertaken at the end of the year. The results will be published and discussed during 2000.

Staff structures, health and welfare are reported on in more detail in the CAA's annual personnel report.

ACCUMULATED WORKING HOURS

The accumulated working hours tally, which measures labour input, amounted to 1,832 man-years of work for the CAA Group during the financial year (1,777 in 1998). The accumulated working hours method reports service duration which takes account of part time working and unpaid leave.

Accumulated working hours at the Civil Aviation Administration amounted to 1,755 man years of work (1,722), of which 1,738 (1,684) were carried out in operational activities and 17 (38) in investment projects. Accumulated working hours for operational activities include 22 man-years which were lost as a result of a labour dispute. Accumulated working hours for the airports amounted to 1,245 (1,260), for the air navigation services centres 131 (123), internal service units 115 (111), Flight Safety Authority 66 (57), and 180 (171) at other units at head office.

The average age of staff at the Civil Aviation Administration was 41.7 years (41.6). The proportion of women rose to 28.5 of staff (27.6 %).

Total wages and remunerations paid to CAA Group staff amounted to FIM 337 million (FIM 326 million in 1998). Salaries and remunerations paid to the Group's Board members and the managing director amounted to FIM 1,438,000 (FIM 1,202,000). Total wages and remunerations to staff of the CAA itself amounted to FIM 328 million (FIM 318 million). FIM 850,000 (FIM 797,000) were paid in total as salaries and remunerations to the Board members and managing director of the CAA proper.

EQUAL OPPORTUNITIES REPORT AND PLAN

During the financial year the CAA carried out its first equal opportunities report, which looked at the staffing and pay structure at the CAA during 1998 from the point of view of equality.

The Civil Aviation Administration's Board accepted the equal opportunities plan for the CAA for the period 1999-2003 on the basis of this report. The aim of the plan is to even out the gender structure of the staff and to ensure that the pay structure continues to take account of equality issues. The plan calls for the equality perspective also to be taken into account in staff training, the provision of information and working conditions.

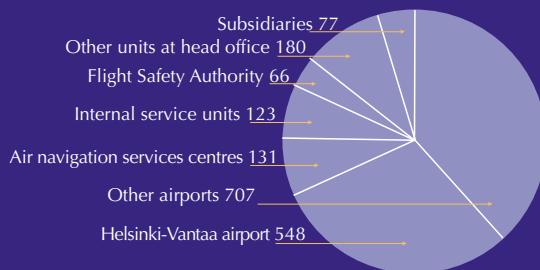
ESTABLISHING THE AVIA COLLEGE

During 1999 the CAA carried out the preliminary work of overhauling the training which the establishment provides. A common training centre called Avia College is to be set up during 2000 to cater for the training and development needs of the CAA's occupational groups, with the aim of inducing uniformity in the training and making it more methodical and effective. Application will be made to the ministry of education for the college to have the status of a special occupational training establishment, and a few specific courses will be examination-based.

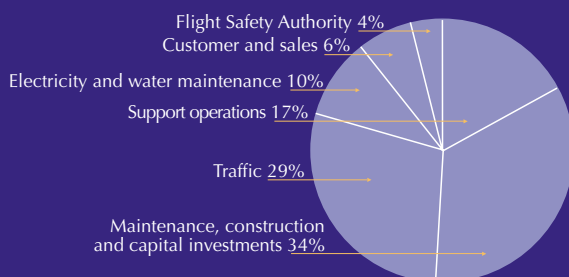
Staff working years CAA group

Enontekiö airport	4
ANS Center South Finland	112
Halli airport	8
Helsinki-Malmi airport	17
Helsinki-Vantaa airport	548
CAA head office	180
Internal service units	123
Ivalo airport	36
Joensuu airport	24
Jyväskylä airport	48
Kajaani airport	23
Kauhava airport	15
Kemi-Tornio airport	26
Kittilä airport	15
Kruunupyy airport	25
Kuopio airport	60
Kuusamo airport	14
Lappeenranta airport	24
Flight Safety Authority	66
Mariehamn airport	23
Oulu airport	64
ANS Center North Finland	19
Pori airport	31
Rovaniemi airport	59
Savonlinna airport	16
Tampere-Pirkkala airport	63
Turku airport	56
Utti airport	8
Vaasa airport	41
Varkaus airport	6
Suomen Lentoasemapalvelut Oy	76
Lentoasemakiinteistöt Oyj	1

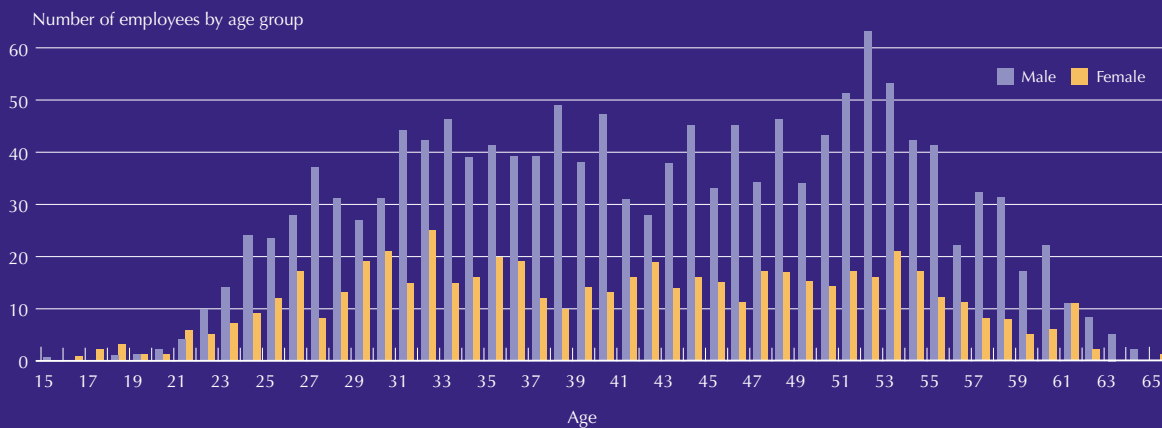
STAFF WORKING YEARS
CAA GROUP 1999



STAFF WORKING YEARS
PER SECTOR
CAA GROUP 1999



PERSONNEL: AGE AND SEX DISTRIBUTION 1999



The Civil Aviation Administration presented its proposals for establishing Avia College at the end of 1999 and is still working on more specific proposals for course curricula and operating expenses. In addition to seeking education ministry approval, the CAA is also applying to the Flight Safety Authority for a training permit in accordance with aviation regulations for the college.

THE AIR TRAFFIC CONTROLLERS' STRIKE

The background to the five week long winter strike by air traffic controllers was a difference of opinion between the CAA's management and the air traffic controllers' union, Suomen Lennonjohtajien Yhdistys (SLJY), which had continued throughout the 1990s, over pay awards and overall working hours. Labour contracts in both 1994 and 1996 came about as a result of a settlement signed after strikes had been threatened.

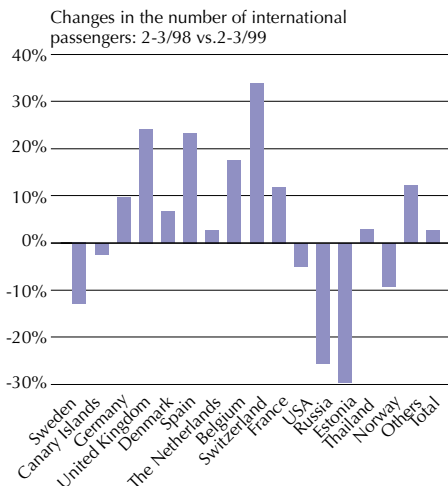
When the new labour contract was once again negotiated at the end of 1998, the demands laid down by SLJY for the basis of the contract differed so radically from the general national policy on incomes that the Civil Aviation Administration could not see its way to accepting them. Nor did further talks headed by the federation of transport and special occupations employers produce results, and air traffic controllers issued a strike warning at the beginning of January. The sta-

te labour conciliator made two further proposals for an agreement, which were accepted by the CAA but rejected by SLJY. The air traffic controllers' strike began on February 1st 1999, having been postponed by two weeks by the ministry of labour.

During the strike the air traffic control services were handled by supervisors, who, with the aid of precise traffic planning, were able to manage almost half the commercial traffic. The strike ended on March 8th 1999 with an agreement worked out between the parties by the state conciliator. The new labour contract, which is valid until October 2002 agreed on pay rises and overall working hours for air traffic controllers at specific airports. At the same time it was decided to set up a committee to work out the optimum number of air traffic controllers at each airport whilst taking into account the need for air traffic control services, the future air space reforms and changes in procedures. In addition it was agreed to set up a working group to work out possible standby arrangements for the Southern Finland ANS centre and Helsinki-Vantaa airport.

In addition to the aforementioned committees, the ministry of transport and communications set up a working group on March 9th 1999 to draw up proposals for improving the working atmosphere and related modes of cooperation at the air navigation unit. The working group submitted its report at the beginning of 2000.

THE EFFECT OF THE STRIKE ON THE NUMBER OF INTERNATIONAL PASSENGERS





I n t e r n a t i o n a l C O O P E R A T I O N

Finland's chairmanship of the EU affected the Civil Aviation Administration's activities in many ways, as much in the office of international affairs as in the air navigation department and the Flight Safety Authority. During the chairmanship term, a CAA representative acted as chairman of the EU traffic council's committee for aviation affairs.

IMPORTANT PROJECTS UNDERWAY

During its chairmanship Finland pushed for what it regards as the important establishment of the European Aviation Safety Authority (EASA). EASA would draw up European air safety norms and would issue type approval for aircraft.

Finland's goal has been to initiate dialogue on the setting up of this authority with the states of the Joint Aviation Authorities (JAA) which are outside the EU. However, the Commission still wants to examine whether EASA should be made an internal EU organization after all. Some member states still support the model for an international organization, while others are prepared to study the Commission's proposal. At any rate, all the member states wish to speed up reorganization into a more harmonious official body within Europe. The Council is now waiting for the Commission to present a more specific presentation of the various alternatives.

The project for a common European air traffic region comprising the states of the EU, central and eastern Europe, Iceland and Norway proceeded positively during the chairmanship. An agreement with ten central and eastern European countries is almost ready and negotiations for Cyprus to join in have begun.

Negotiations for the EU to join Eurocontrol (the European Organisation for the Safety of Air Navigation) have reached the final stretch but the dispute between Great Britain and Spain over the status of Gibraltar is proving an obstacle to membership. Finland's membership of Eurocontrol is proceeding to plan and

will be ratified in the spring of 2000.

The reduction of air traffic delays and congestion in Europe has come up for discussion within the Transport Council. Eurocontrol plays a pivotal role in solving these problems. Better planning of air space use is seen as being vitally important.

Concerning aircraft noise, in spring the Transport Council approved the 'hushkit' rule, which seeks to put a cap on the number of ageing jet aircraft that use noise suppressers or operational measures to bring them up to the latest noise standards as set by the International Civil Aviation Organization. The USA has opposed this rule, due to come into effect in May 2000, nor has common understanding been reached despite negotiations. In December the Transport Council announced its support for a project within the ICAO for creating new, tighter noise standards, in which case the hushkit rule would lose its significance.

BILATERAL AVIATION MATTERS

Changes to the air traffic agreement between Finland and Canada were made in spring on the basis of which Finnair began summer flights to Toronto. Air Canada inaugurated code share flights to Finland in collaboration with SAS and Lufthansa.

Traffic agreements were initialled between Finland and Australia and Finland and Hong Kong. In discussions between the Civil Aviation Administration and Japan and Thailand, agreement was reached for more flexible traffic opportunities for specified airlines.

There'd be no

Saariselkä

without the airport,



and there would be no Ivalo airport without Saariselkä, comments local community official Voitto Tervahauta philosophically, from the windy peak of Kaunispää hill. The popular ski resort and the airport have expanded at the same pace over the past twenty years or so, Saariselkä accounting for more than two thirds of the 300,000 overnight stays in the district of Inari in 1999. During the same period 116,000 passengers passed through Ivalo airport.

“Tourism is everything to the district of Inari - you can see that, for instance, in the way it took part in the financing of the airport expansion. Happily, too, there has been an increasing amount of cooperation between the tourist operators and those involved in the traditional livelihoods of forestry and reindeer hus-

bandry. Adding tourist services to the daily life of a reindeer farm allows the family to carry on making a living out of reindeer. We have also learned to see the benefits of protecting the forests, because we can offer our guests vast tracts of wilderness and unspoilt nature!”

Mr. Tervahauta looks optimistically to the future, with the wish that there would be a steady stream of visitors to the northern reaches throughout the year. After all, there is plenty to see in Inari in summer as well as in the dark, sunless winter months. “Lake Inari has an enormous amount to offer; fabulous scenery, fishing, canoeing. A boat could sail the lake in summer, and when it got stuck in the ice in winter, it could become a hotel.”

"Tourism is everything to the district of Inari."





Front (from left) Mona Björklund and Tuulikki Petäjäniemi

Rear (from left) Matti Puhakka, Pekka Hurtola, Mikko Talvitie and Seppo Simola

R e p o r t

OF THE BOARD

Objectives for 1999 and how they were met

The Council of State set the following service, operational and profit objectives for 1999:

It is the aim of the CAA to make sure that aviation is as safe, efficient, appropriate and economical as possible.

The CAA must take care of the supply and development of its services in accordance with the requirements of profitable business practice. In offering and developing its services, the needs of clients, including the military aviation authorities and the general public, must be taken into account. Finnish airports and the air navigation system shall be maintained and developed as a unified whole, in accordance with the demand for services. First and foremost, the CAA must endeavour to ensure the necessary services for regular, scheduled traffic.

It is the aim of the Civil Aviation Administration to make the most effective use of land in the vicinity of airports as far as air transport and the public are concerned, the primary concern being well-functioning airports.

The profit target set for the CAA by the Council of State for 1999 was FIM 66 million. The actual profit for the financial year was FIM 84.9 million.

AIR NAVIGATION AND AIRPORT SAFETY

Air navigation and airport safety remained good during 1999. A total of 12 incident reports concerning commercial aviation and five relating to airport operations were made. Judging from the resulting investigations, one of these cases was classified as a serious incident, five were regarded as slightly hazardous and 11 were merely deviations from normal practice. The incident which was regarded as serious occurred at Lappeenranta, when a commercial aircraft was forced to avoid a glider at 100 metres' distance.

Overall, the number of incident reports and their seriousness remained at the level of 1998. It is difficult to present a precise analysis because the classification system for such incidents is still being worked out, while reporting has been made more effective. As far as classification and incident reporting, as well as rapid analysis of them is concerned, the CAA is in the front rank of developed countries. Eurocontrol is unifying its procedures, which will eventually make it possible to compare countries.

The reporting and feedback system works well and the CAA's own reports are always completed within a week of the incident report at the latest. Serious incidents and usually those assessed as slightly hazardous are thoroughly investigated separately by the Accident Investigation Board as well. A total of five air navigation and airport incidents were examined by the Board.

AIR TRAFFIC DELAYS

After safety, the Civil Aviation Administration's most important gauge of service is the number of delays to air traffic. These may be caused by the airlines as well as the air navigation services or by maintenance work at the airports. The CAA can influence delays through the air navigation services and the airports. In 1999, 8 % of flights in Finland were delayed as a result of air navigation or airport operations. The equivalent figure for 1998 was 9 %. Of the delays, 1.5 % (3.5 % in 1998) occurred as a result of regulatory measures issued in

Finland. This figure corresponds to the internal target set by the CAA for 1999.

The most significant reform to affect the standard of service was that concerning the air space in Southern Finland and at Helsinki-Vantaa airport, the aim of which was to ensure the effective and flexible management of air traffic, thereby also reducing delays. The reform became effective in July and contributed dramatically to the reduction in delays at the end of the year.

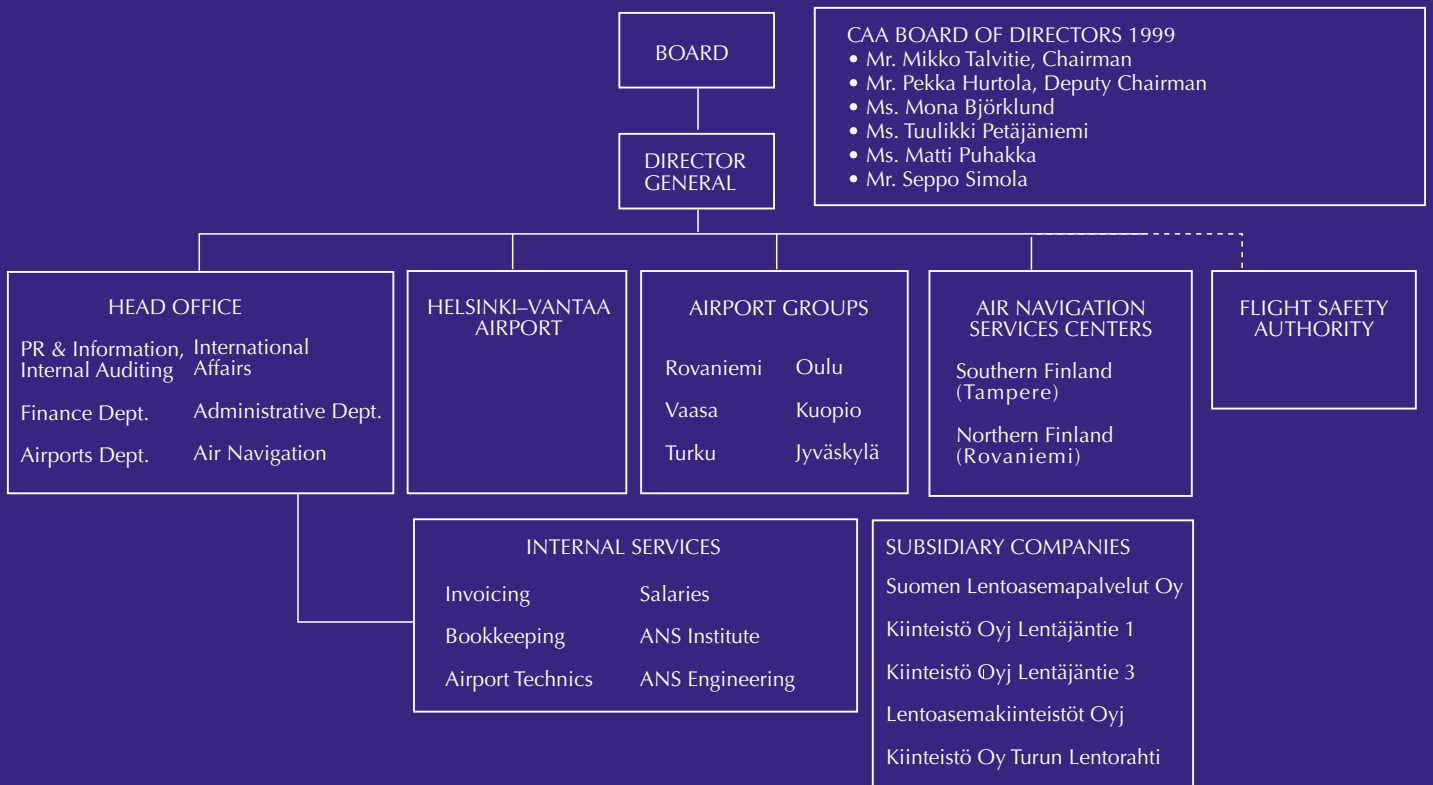
OPERATIONAL EFFICIENCY

The operational efficiency of the CAA did not improve during the financial year because of the fall in the volume of operations during the strike. The number of operations in relation to staff working years fell by 4.6% in 1999. As a corresponding proportion the number of passengers remained at the 1998 level. Opening hours for airports and other services remained at the level required for commercial and military aviation. The charges levied by the CAA for its services remained highly competitive in international terms and among the lowest of the Nordic countries.

BRISK DIALOGUE

The CAA is engaged in active dialogue with its clients and other partners with which it cooperates. The main thrust of these discussions in recent years has been in issues relating to the quality of service and means to improve services. In 1999 the CAA discussed measures for improving air traffic with the local authorities surrounding its airports, among others. The aim of this cooperation has been to influence the quantity and qualitative development of air traffic. Investments for improving service standards at provincial airports have been carried out in conjunction with the local authorities and the ministry of labour on the so-called three-tier principle, thus bringing about solutions which would not have been financially justified purely on the basis of traffic volumes.

CAA Finland Group Organization



A FUNCTIONING SERVICE NETWORK

The network principle is an important premise for the Civil Aviation Administration as it develops its services. It means that the network that provides Finland's airport and air navigation services is a single entity. This principle has often been in evidence particularly in connexion with international contacts.

The CAA adapts its operations to the needs of its clients. Although domestic scheduled traffic often requires financially awkward opening hours, customer

wishes have been taken into account and we have been able to run traffic at the desired times.

Projects were continued during the year which were designed for the commercial exploitation of land bought by the CAA in the vicinity of its airports. These projects are in the areas around Helsinki-Vantaa and Oulu airports. Most of these projects will be carried out within 5 to 10 years or so.

The development of air traffic and other changes in our operating environment

THE DEVELOPMENT OF AIR TRAFFIC

In 1999 the development of air traffic was affected by a five week strike in February and March. Although it was possible during this time to handle almost 90 % of international traffic, the effect on domestic traffic was considerable, because it was only possible to run about 20 % of these to timetable. Particularly badly affected by the strike was traffic development at individual airports relying only on domestic flights. Nor did passenger numbers on domestic flights return to their pre-strike growth trends, this indeed, being a result of a contraction in supply. Nor was the trend in international traffic as great as the relatively powerful growth in the economy might have led us to expect.

During 1999 the number of passengers passing through CAA airports increased by 1.1 %. The number of domestic passengers fell by 3.4 %, while the number of passengers taking international flights rose by 5.0 %. International scheduled traffic, however, increased by 6.7 %, while charter flights abroad went down by 2.5 %: The number of air passenger flights

overall rose in 1999 to almost 9.6 million, an increase of 2.5 % over the previous year. The amount of controlled flight kilometres increased by 2.2 % during the year.

The number of operations for commercial aviation fell by 4.4 % to about 125,000 a year. For domestic traffic, the reduction was 9.9 %, while for international traffic there was an increase of 3.9 %. The number of operations for private and military aviation remained at the 1998 level. At the end of the year those companies operating domestic flights in particular rearranged their routes, which in addition to the strike further reduced the number of operations in domestic traffic.

No overflights had to be restricted because of the strike. The number of overflights fell in 1999 by 17.1 % mainly because of changes to routes between Tallinn and Stockholm, which meant that they no longer entered Finnish air space at all. However, this change did not affect the number of overflight kilometres, which increased during 1999 by almost 10 %.

The number of gateway passengers passing through Helsinki-Vantaa airport grew during 1999 by 5.5 %.

PRICING OF AIR TRAFFIC SERVICES

The CAA continued its consistent pricing policy in 1999 and raised its traffic tariffs moderately so that the overall effects of the changes were lower than the expected inflation rate. Preparations for membership of Eurocontrol meant that Finland too had to introduce navigation fees for domestic traffic. The aim is to gradually raise fees, which were charged for the first time in 1999, to correspond to costs and to equal the amounts charged for international traffic. The most important changes in tariffs appear in the following table.

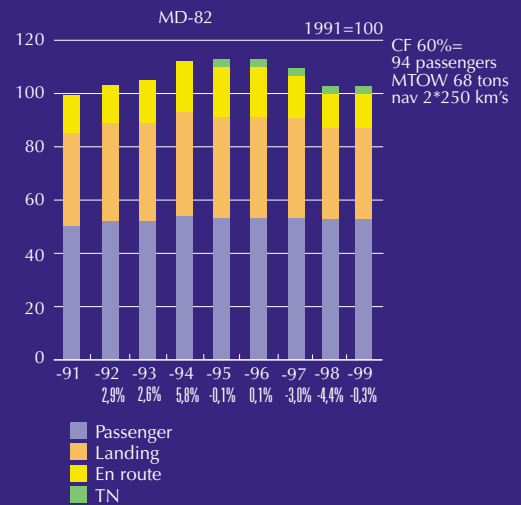
Charge	Tariff change (%) 98/99
Domestic passenger charge	0%
Domestic landing charge	+5,0%
International passenger charge	0,0%
International landing charge	-1,0%
Air navigation service charge	+4,0%
Navigation charge for international traffic	-9,6%

Other changes affecting the tariff structure were introduced during the year. In particular it is worth mentioning the change in the parking charge for aircraft, as a result of which the charge for night time parking of aircraft was removed completely. The bulk discount system which had been in use for years was abandoned completely from the beginning of 1999 on the decision of the European Commission.

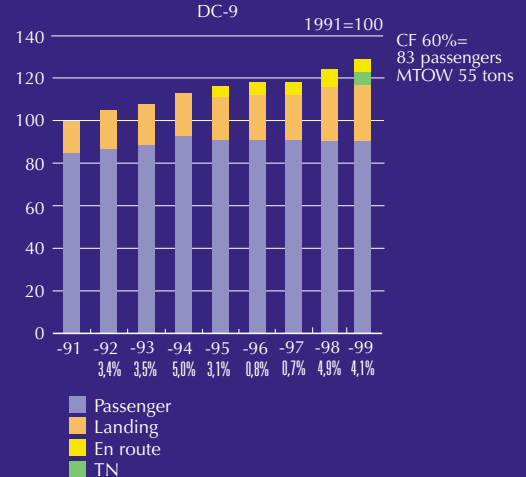
The effects on airline costs of the tariff changes shown varies according to whether the company is engaged solely in domestic transport or whether it is also an international carrier. Charges for companies carrying only cargo or post rose more than for those which also undertake passenger transport. The revenue increase for domestic traffic was 6 % and for international traffic it was -1 %. On average, the tariff changes raised CAA revenues by 1 %.

Helsinki-Vantaa airport retained its position as one of Europe's cheapest airports and also as one of the most competitive primary airports in Scandinavia in terms of its airport charges.

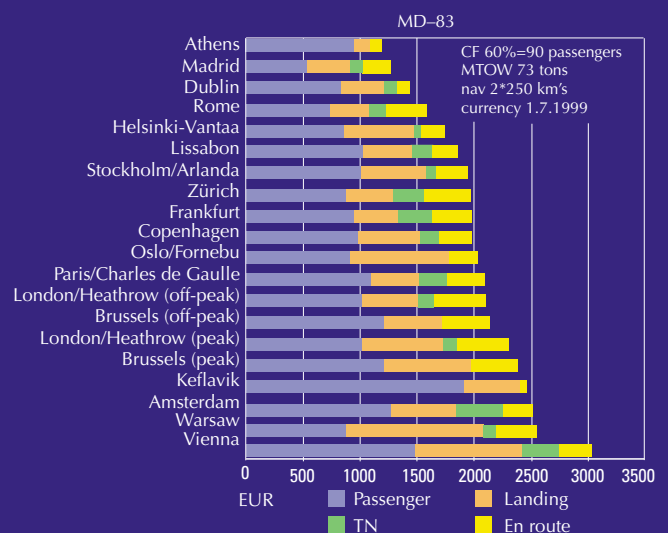
AIR TRAFFIC CHARGES IN INTERNATIONAL TRAFFIC 1991-1999



AIR TRAFFIC CHARGES IN DOMESTIC TRAFFIC 1991-1999



AIR TRAFFIC CHARGES 1999



Financial result for 1999

FINANCIAL RESULT FOR THE CAA GROUP

The CAA Group consists of the CAA and its Group subsidiaries Kiinteistö Oyj Lentäjantie 1, Kiinteistö Oyj Lentäjantie 3, Suomen Lentoasemalvelut Oy, Kiinteistö Oy Turun Lentorahti and Lentoasemakiinteistöt Oyj.

Turnover for the CAA Group during the financial year was FIM 1.105.5 million (FIM 1.080.9 million in 1998), earnings on other operations reached FIM 6.5 million (FIM 58 million). Turnover for the CAA Group increased by 2.3 %. Operating profit for the CAA Group was FIM 94 million (FIM 103.1 million) and the book result was FIM 84.9 million (FIM 102.2 million).

FINANCIAL RESULT FOR THE CAA

The Council of State set the profit target for the Civil Aviation Administration at FIM 66 million for 1999. The CAA's profit for 1999 was FIM 84.9 million. Despite the difficult operating conditions the profit target was exceeded during the year, largely as a result of the positive effect which the strong economy had on international traffic.

The dampening effect on profit of the abolition of duty free sales was to some extent less than expected, because it was possible to compensate for some sales with taxed sales. The overall effect of these factors gave a better than budgeted result, although it was FIM 10 million lower than for 1998.

The Civil Aviation Administration's turnover in 1999 was FIM 1.103 million, corresponding to a growth of 2.1% over the previous year. Operational revenues accounted for FIM 758.5 million of turnover (69 %) while commercial revenues amounted to FIM 351 million (31 %).

Operating profit increased by 4.1 % from the previous year although it fell almost FIM 3 million short of budget. Although airport fees for domestic flights were raised considerably, these revenues remained — largely as a result of the strike — at the same level as the year before, leaving a gap of FIM 10.1 million in budgeted revenues. Airport charges for international

traffic did not really exceed the previous year's level at all and the budgeted figure was exceeded by only FIM 4.2 million (1.1 %). This was mainly because of the reduced airport service charges for international traffic. Revenues from overflights (FIM 37 million) exceeded the budgeted figure by FIM 3.4 million and remained at the previous year's level. However, navigation fees from other traffic increased by more than FIM 6 million, as a result of the navigation charges introduced for domestic traffic at the beginning of 1999.

Revenues from commercial services (FIM 351 million) fell slightly from the year before (1.7 %). Revenues from duty free sales fell the most (29.4 %), and to some extent it was possible to compensate for these with extra earnings on taxed sales. However, revenues from sales exceeded the budgeted sum by 17.7 %.

The CCA's operating costs in 1999 amounted to FIM 795 million (FIM 753 million in 1998), which exceeded the budgeted amount by FIM 42 million. The previous year's figure for operating costs was exceeded by 6.5 %. In the main the overrun was caused by extra expenses resulting from the strike, which were greater than the savings on wage costs, as well as the higher than expected costs of preparing for the millennium change. Also entered into the costs were one-time expenses amounting to FIM 18.4 million.

Considerable cost overruns were also caused by unstable weather during the late autumn when more snow-melting agents were used than budgeted for, as well as purchases for the busier than expected sales at the Helsinki-Vantaa airport shop.

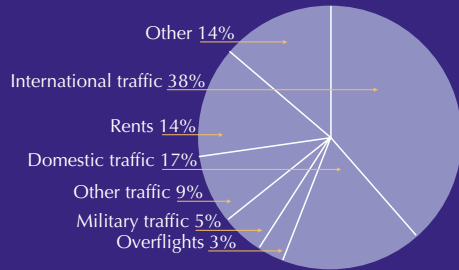
Depreciations fell below the 1998 level, to FIM 226.7 million. Besides the planned depreciations, further depreciations of FIM 1.3 million were made. In addition to the above, the CAA increased the accumulated balance sheet depreciations by FIM 20.2 million..

The Civil Aviation Administration's profit on commercial operations for 1999 was FIM 88 million (FIM 101 million in 1998). Extraordinary revenues included the Group's internal sales profit from two individual sales involving the sale of a plot of land to Kiinteistöosakeyhtiö Lentäjantie 1 and two buildings to Lentoasemakiinteistöt Oyj.

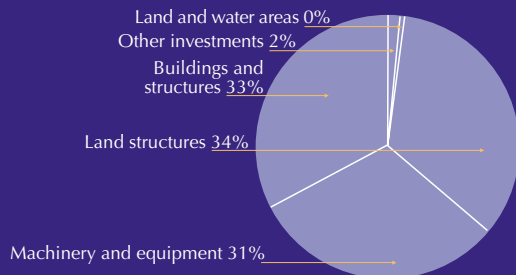
Income distribution for the CAA

	1999 Million FIM		1998 Million FIM	
Turnover and other business activity income	1109,7		1086,8	
Production cost of services	-365,3		-324,9	
Financing income	18,9		20,4	
Extraordinary income	20,9		0,0	
Amount to be distributed	784,2	100%	782,3	100%
Preliminary taxation	108,2		103,3	
Social security fee	13,1		12,7	
Unemployment insurance fee	6,7		6,2	
Real estate tax	5,4		4,7	
Other public expenditures	1,9		2,3	
1. Public expenditure	135,4	17%	129,2	17%
Wages	327,4		317,7	
Preliminary taxation	-108,2		-103,3	
Contribution to pension fund	58,8		61,1	
Social security and unemployment insurance fees (-13,4)			(-18,9)	
Other personnel costs	7,5		6,5	
Education	8,6		10,0	
2. Personnel	294,1	38%	292,0	37%
Financial costs	22,8		18,3	
3. Financiers	22,8	3%	18,3	2%
Fixed assets	226,8		239,6	
Changes in reserves	20,2		7,6	
Undivided profit	85,0		95,6	
4. Infrastructure development	331,9	42%	342,8	44%
Amount to be distributed in relation to the number of movements and passengers				
Number of movements	350 880		357 036	
Number of passengers	10 211 075		9 965 443	
Amount to be distributed				
per movement	2 235		2 191	
per passenger	77		79	

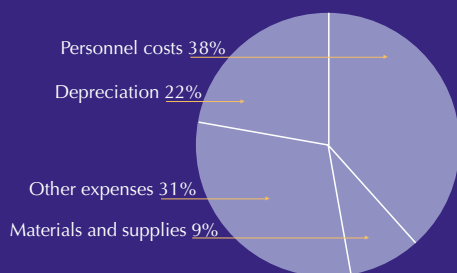
INCOME 1999



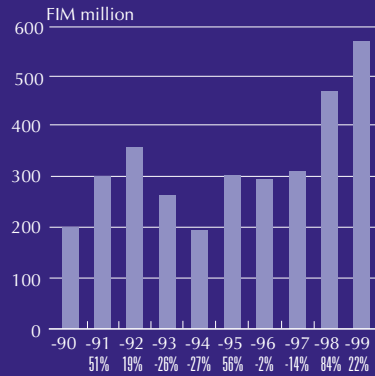
INVESTMENTS 1999



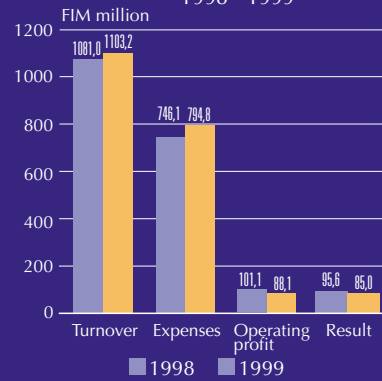
EXPENSES 1999



INVESTMENTS 1990 - 1999



COMPARISON OF THE RESULT 1998 - 1999



Investments

Investments reached a total of FIM 567 million. The total amount of investment as set by the Council of State was FIM 600 million. Construction of the third runway for Helsinki-Vantaa airport and the second phase of the international terminal raised the total amount of investment spending. The new terminal, opened in November, significantly improved the quality of service at Helsinki-Vantaa, with the opening of the new arrivals and departure lobbies.

Investments were also made to improve operations at other airports, the most significant of these being the expansions to Turku and Ivalo terminals, both of which were carried out in collaboration with their surrounding local authorities. The most important capital investment projects to be started during the year were the new parking facility for Helsinki-Vantaa airport, the expansion to the Rovaniemi airport terminal and the new terminal for Varkaus airport. The new FATMI air navigation system went into operation at Rovaniemi area control center.

Financing

The government budget granted the CAA the authority to raise a long term loan of up to FIM 200 million. The CAA made no use of this authorization at all. However, the CAA did raise a loan of FIM 196.2 mil-

lion with the European Investment Bank on the basis of a lending agreement for FIM 650 million signed in 1988. At the turn of the year FIM 300 million of this loan provision had not been taken out. Authority for raising this loan was provided in the 1998 government budget.

Net cash flow on commercial operations for the CAA Group was FIM 292.2 million (FIM 407 million in 1998). The reduction in net cash flow was affected by a reduction in operating profit, an increase in working capital tied up in operations and higher interest costs. The corresponding net cash flow for the CAA's business operations was FIM 290.7 million (FIM 397.8 million). At the end of the year the Group's liquid cash reserves and financial market investments stood at FIM 282.6 million, which was FIM 116.5 million lower than at in the beginning of the year.

The CAA Group's long term loans at the end of the year amounted to FIM 730 million, of which the CAA's share was FIM 496 million. During the year the average interest rate paid on borrowed capital by the CAA was 3.3%.

Personnel

During the year the average number of people employed by the CAA was 1,755 (1,722 in 1998). The corresponding number for the CAA Group was 1,831 people (1,794).

SALARIES AND OTHER REMUNERATIONS PAID DURING THE YEAR WERE AS FOLLOWS

	CAA group		CAA only	
	FIM 1000		FIM 1000	
	1999	1998	1999	1998
Board members and managing director	1 402	1 202	850	797
Other staff	313 673	299 484	306 813	292 634
Profit bonus		5 555		5 555
Holiday pay	14 389	14 770	14 196	14 583
Change to holiday pay provision	5 839	4 446	5 553	4 160
Benefits in kind	525	454	518	451

The outlook for 2000

The Finnish economy will continue to grow strongly in 2000. The more modest growth in air traffic which began at the end of 1999 will continue into 2000. Excluding the effects of the 1999 strike, it is estimated that domestic and international traffic will increase by 5 % in 2000, this estimate being based on GDP growth of 3 %. The effects of the abolition of duty free sales within the European Union area will be felt in full. The Civil Aviation Administration's financial result for 2000 will be weaker than for 1999. The amount of investment will be below that of 1999.

Work will begin during the year on alterations to Helsinki-Vantaa airport which will allow air traffic to be integrated into the Schengen area procedures when Finland joins the agreement on March 1, 2001. This means the creation of a section of terminal, separate from the present international terminal, purely for those travelling to countries outside the Schengen area. The estimated cost of the project is FIM 49 million. Construction of the third runway will continue at full speed during the year, and in addition, the air navigation system will continue to be developed, for example with the adoption of the new FATMI air navigation system at Helsinki-Vantaa airport.

The Flight Safety Authority's goals for 1999 and how they were met

The Ministry of Transport and Communications approves and sets the operational goals for the CAA's regulatory division, the Flight Safety Authority. In 1999, these goals were achieved as follows:

The central objectives of the Flight Safety Authority's international cooperation involved its active participation within the EU in the preparations for setting up the European Aviation Safety Authority, EASA, its cooperation with the Joint Aviation Authorities, JAA, and its activities in the Eurocontrol safety regulation commission.

Assisting the European Commission in the preparations for establishing EASA was a special committee composed of delegates from member states, in which Finland was represented by the Flight Safety Authority. Advancement of the EASA project to the negotiating stage was one of the primary goals of Finland's EU chairmanship. On the proposal of the Commission, however, it was decided at a meeting of the council of transport ministers in December 1999, that before the negotiations should begin, the benefits and disadvantages of setting up a European organization, as opposed to an international one, should be examined once again.

The Flight Safety Authority represented Finland on various committees and working groups of the JAA and SRC.

In Finland, the central objective was to implement the Joint Aviation Requirements, as agreed through international cooperation, regarding commercial air transport, pilots' licences and medical fitness.

The joint European JAR-OPS requirements came into force for IFR, OFF SHORE and HEMS helicopter operations in August 1999. The IFR requirements for small aircraft operations were postponed until April 2000. Implementation of VFR regulations

for aeroplane and helicopter companies operating small aircraft by day was postponed until April 2001.

Some of the joint European requirements concerning pilots' licences (JAR-FCL 1) already came into effect in July 1999. The aviation authority already took over sole responsibility for administering the pilots' licence theory test the previous year. During the year under review, the multiple choice questions contained in the test were assessed and developed in collaboration with aviation organizations. However, most of the requirements concerning licences and medical fitness (JAR-FCL 3) came into effect at the beginning of 2000.

During the year attention was given to the recommendations relating to the Flight Safety Authority's operations which came up in the audit of the Civil Aviation Administration's air navigation services.

The recommended measures are being carried out. The Flight Safety Authority has made sure that the principal features of the CAA's safety management system handbook are prepared according to plan and that they fulfil requirements. Preparation of the handbook is slightly behind schedule.

Important goals have also been the improvement of customer service and increasing the efficiency of operations, as well as the clarification of the Flight Safety Authority's role and public image.

During 1999 a handbook of operational and quality guidelines was compiled for the Flight Safety Authority's internal use. The Flight Safety Authority began an information column in the main trade publication and opened its web site for publishing information on current topics and aviation regulations. The Flight Safety Authority has also actively kept watch on any publicity relating to its field and if necessary replied to it or issued information on it through the mass media.

INCOME STATEMENT 1.1.1999 - 31.12.1999

	GROUP 1999 FIM thousand	1998 FIM thousand	CAA 1999 FIM thousand	1998 FIM thousand
NET TUOVER	1 105 508	1 080 864	1 103 176	1 080 997
Other operating income	6 506	5 778	6 506	5 778
EXPENSES				
Raw materials and consumables				
Purchases during the financial year	88 089	90 191	87 880	90 128
Variation in stocks	-404	-415	-345	-415
External services	199 684	163 278	209 023	172 077
MATERIALS AND SERVICES	287 369	253 054	296 558	261 790
STAFF EXPENSES				
Wages and salaries	327 481	317 906	317 978	310 159
Social security costs				
Pension expenses	60 480	62 381	58 826	61 102
Other social security expenses	19 391	19 269	18 662	18 749
TOTAL STAFF COSTS	407 352	399 556	395 466	390 010
DEPRECIATIONS AND REDUCTION IN VALUE				
Depreciation according to plan				
Buildings and structures	69 827	73 128	64 292	69 697
Machinery and equipment	107 507	104 907	104 719	102 927
Ground structures	55 639	64 932	55 537	64 932
Intangible rights	2 056	1 864	2 056	1 864
Goodwill - group	344			
Other long-term outgoings	147	241	147	199
DEPRECIATIONS	235 520	245 072	226 751	239 619
Other operating charges	87 782	85 845	102 765	94 298
OPERATING PROFIT	93 991	103 115	88 142	101 058
FINANCING INCOME AND EXPENSES				
Income from group undertakings			32	32
Income from other investments held as non-current assets	45	3	45	3
Share of associated company profits	110	52		
Other interest and financial income	24 990	24 044	18 827	20 406
Interest and other financial expenses	-33 630	-24 915	-22 784	-18 302
	-8 485	-816	-3 880	2 139
PROFIT BEFORE EXTRAORDINARY ITEMS	85 506	102 299	84 262	103 197
Extraordinary items				
Extraordinary income			20 912	
PROFIT BEFORE APPROPRIATIONS AND TAXES			105 174	103 197
Appropriations				
Change in depreciation reserve			-20 204	-7 608
			-20 204	-7 608
Income taxes	-60	-183		
Change in calculated tax liability (+/-)	-123	-142		
PROFIT BEFORE MINORITY SHARE	85 323	101 974	84 970	95 589
Minority share of profit for financial year		-351	249	
PROFIT FOR THE FINANCIAL YEAR	84 972	102 223	84 970	95 589

1.1.1999 - 31.12.1999 **BALANCE SHEET**

	GROUP 1999 FIM thousand	1998 FIM thousand	CAA 1999 FIM thousand	1998 FIM thousand
ASSETS				
NON CURRENT ASSETS				
Fixed assets				
Intangible assets				
Intangible rights	11 535	11 738	8 019	8 221
Goodwill	1375			
Other capitalised long term expenses	78	225	78	225
	12 988	11 963	8 097	8 446
Tangible assets				
Land	223 830	223 649	221 985	223 649
Buildings and structures	1 512 503	1 173 327	1 299 963	1 057 179
Machinery and equipment	501 900	420 341	491 205	413 985
Ground structures	616 834	589 890	615 653	589 386
Advance payments and building in progress	441 836	521 454	439 640	449 017
	3 296 903	2 928 661	3 068 446	2 733 216
Investments				
Participating interests	335	201		
Holdings in group undertakings			37 690	34 191
Other shares and similar rights of ownership	2 373	1 941	2 373	1 941
Other investments	118 977	74 953	118 977	74 953
	121 685	77 095	159 040	111 085
CURRENT ASSETS				
Current assets				
Stocks				
Finished goods for sale	3 291	2 887	3 232	2 887
	3 291	2 887	3 232	2 887
Debtors				
Trade debtors	88 714	79 931	88 184	81 376
Amt owed by particip. int. undertakings			583	12
Prepayments and accrued income	40 605	42 649	42	71
Other debtors	42	71	34 628	40 068
	1 29 361	1 22 651	1 23 437	1 21 527
Investments				
Other investments	169 406	334 169	165 406	324 169
Cash in hand and at banks	16 321	37 115	2 727	4 242
	3 749 955	3 514 541	3 530 385	3 305 572
LIABILITIES				
Capital and reserves				
Basic equity	1 097 236	1 097 236	1 097 236	1 097 236
Own non-restricted capital	1 262 131	1 262 131	1 262 131	1 262 131
Retained earnings	267 003	193 280	260 123	193 035
Profit / loss for the financial year	84 972	102 224	84 970	95 588
	2 711 342	2 654 871	2 704 460	2 647 990
Minority share		6 573	8 002	
Appropriations				
Depreciation reserve			39 512	19 308
Obligatory provisions		2 160		2 160
		2 160	39 512	21 468
Creditors				
Long term				
Amounts owed to credit institutions	730 319	570 500	496 209	370 000
Membership fees	2 932	1 759	3 528	2 356
Imputed tax liability	333	210		
	733 584	572 469	499 737	372 356
Short term				
Loans from financial institutions	76 833	35 000	70 000	30 000
Advances received	1 262	4 576	1 202	4 576
Trade creditors	84 794	101 178	83 474	95 575
Amounts owed to group undertakings			1 273	600
Other creditors	26 863	47 773	26 310	47 287
Accruals and deferred income	108 704	88 512	104 417	85 720
	298 456	277 039	286 676	263 758
	3 749 955	3 514 541	3 530 385	3 305 572

FINANCING STATEMENT 1.1.1999 - 31.12.1999

	GROUP 1999 FIM thousand	1998 FIM thousand	CAA 1999 FIM thousand	1998 FIM thousand
CASH FLOW OF BUSINESS OPERATIONS				
Operating profit	87 747	102 587	88 141	100 782
Amendments to operating profit	233 102	247 268	224 590	241 779
Change in trading capital	-28 456	57 460	-18 182	53 090
Interests and charges paid	-31 400	-23 914	-22 784	-18 302
Dividends received	45	3	77	35
Interests received	31 269	23 801	18 828	20 406
Taxes	-60	-183		
Total	292 247	407 022	290 670	397 790
CASH FLOW OF INVESTMENTS				
Land and water areas	39	2 420	39	2 420
Buildings and structures	218 928	247 687	185 409	183 327
Machinery and equipment	184 288	110 521	177 234	109 662
Ground structures	195 135	160 668	194 343	160 633
Shares and interests	3 927	2 194	3 903	2 052
Intangible rights	4 087	6 273	4 087	4 480
Other long term expenditure	2 233	474	2 233	509
Income from sale of capital assets	-1 703	-412	-22 615	-332
Total investments in capital assets	606 934	529 825	544 633	462 751
Change in financial market investments	44 024	4 972	44 024	4 972
CASH FLOW OF TOTAL INVESTMENTS	650 958	534 797	588 657	467 723
				-69 933
CASH FLOW BEFORE FINANCING	-358 711	-127 775	-297 987	-6 993
CASH FLOW OF FINANCING				
Increase (+) / (-) decrease in long term loans	160 627	225 000	126 209	150 000
Withdrawals (+) / (-) payments on short term loans	47 025	-30 000	40 000	-30 000
Increase in own equity	1 000	2		
Owners share of profits	-28 500	-21 982	-28 500	-21 982
Total	180 152	173 020	137 709	98 018
CHANGE IN CASH FLOW	-178 559	45 245	-160 278	28 085
Cash/liquidity 1.1.	360 284	315 039	328 411	300 326
Cash/liquidity 31.12.	181 725	360 284	168 133	328 411

NOTES ON THE FINANCIAL STATEMENTS

1. Group accounting principles

The financial statement for 1999 has been drawn up in accordance with the accounting principles for state enterprises and groups of enterprises as laid down in the Council of State decision (1023/98) of 17 Dec.1998.

All the companies belonging to the Group as well as the associated company Nurminen Airport Services Oy have been included in the financial statement. The associated company Turku Touring Oy has not been included because of its minimal influence on the Group's equity.

More specific information on companies belonging to the Group appears in the appendix under the heading "CAA Group Companies."

Internal transactions within the Group and internal receivables and liabilities have been eliminated.

Cross ownership of shares has been eliminated using the past-equity procedure. Minority shares have been removed from the Group's own equity capital and revenues and shown as a separate item on the balance sheet. The associated company has been included using the equity method. The Group's share of the associated company's profits in accordance with its share of ownership is presented under financing items. The tax debt derived from appropriations has been amended retrospectively.

Accounting principles used in the financial statements

Capital assets are accounted for according to acquisition costs. Planned depreciations are calculated within the Group according to a uniform principle governing the economic lifetime of the capital asset. Inventories are valued at fifo-principles. Investments held as liquid assets are valued according to their purchase price or at their lower market price.

Foreign receivables and creditors have been converted into Finnish currency at the Bank of Finland's median rate prevailing on the day of closing the books. All exchange rate differences have been included on the profit & loss account.

The financial statements concerning the electricity grid and electricity sales appear separately in the notes to the financial statements, as required by the Electricity market Act.

Notes to the profit and loss account

2. Salaries for the financial year

Performance based	GROUP		CAA	
	1999	1998	1999	1998
	Thou. FIM	Thou. FIM	Thou. FIM	Thou. FIM
Salaries and remunerations for the Board of Directors and Managing Director	1 438	1 202	850	797
Other salaries	315 586	299 484	306 813	292 634
Performance bonus		5 555		5555
Holiday pay	14 438	14 770	14 196	14 583
Change in holiday pay provisions	5 467	4 446	5 553	4 160
Benefits in kind	525	454	518	451
Total	337 453	325 911	327 930	318 179

Holiday pay provisions include holiday pay earned since the beginning of the relevant year (9 months), holiday pay, holiday bonuses, unspent annual holidays and saved time off.

3. Social costs

Pension costs	60 480	62 404	58 826	61 102
Unemployment insurance payments	6 940	6 213	6 718	6 152
Other personnel costs	12 447	13 054	11 944	12 597
Total	79 866	81 671	77 489	79 852

CAA staff are covered by the state national pension scheme. Performance based pension payments calculated according to the 1999 salary bill in compliance with insurance mathematics accounting principles for full coverage are entered in full in the income statement. The state treasury set the pension contribution rate at 18.15 % (1998; 18.62 %).

The CAA Group employed an average of 1,831 people during the financial year (1998; 1794). The corresponding figure for the CAA itself was an average of 1,755 (1998; 1,722) people, of whom 1,738 (1998; 1684) were engaged in operational duties, while 17 (1998; 38) were employed on capital investment related projects.

At the end of the financial year there were 1,928 people employed by the CAA Group (1998; 1832). The number of permanent staff employed by the CAA at the end of the financial year was 1,608 (1998; 1489), while the number on fixed-term contracts was 244 (1998; 277).

In 1999 the number of individual working years performed by the personnel was 1,755 (1998; 1,722). The effect of the strike was -22 working years.

4. Extraordinary income

This item includes property transactions between the CAA and Kiinteistö Oyj Lentäjantie 1 and Lentoasemakiinteistöt Oyj. Contributions for the mentioned real estate affairs were FIM million 18.8 and FIM million 2.1

Notes to the balance sheet

5. Intangible and tangible assets and depreciations

Applied economic lifespan and depreciation percentages were as follows:

	Years	Depreciation - %	
Intangible assets			
Intangible rights	5	20%	straight line
Goodwill group	5	20%	straight line
Other long term expenditure	5	20%	straight line
Tangible assets			
Buildings and structures	10 - 40	2,5 - 10 %	straight line
Machinery and equipment	3 - 20	6,7 - 46,7 %	reducing balance
Earth structures	10 - 40	2,5 - 10 %	straight line

In addition to mandatory planned depreciations, the following additional depreciations have also been entered into the financial statement.

Buildings and structures

Demolition costs relating to car park buildings at Helsinki-Vantaa airport	Mil. FIM 0.9
Demolition costs relating to Varkaus airport terminal project	Mil. FIM 0.1

Ground structures

Immediate write-off of non-performing auxiliary runway at Oulu airport	Mil. FIM 0.2
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Changes in balance sheet items:	GROUP		CAA	
	1999 FIM thousand	1998 FIM thousand	1999 FIM thousand	1998 FIM thousand
Intangible rights				
Acquisition costs 1.1	25 865	21 429	22 349	19 109
+ Increase during financial year	1 853	5 122	1 853	3 925
- Decrease during financial year		-686		-686
Acquisition costs 31.12.	27 718	25 865	24 202	22 349
- Accrued planned depreciation 31.12	-16 184	-14 127	-16 184	-14 127
Book value 31.12.	11 535	11 738	8 019	8 221
Goodwill				
Acquisition cost 1.1.				
+ Increase during financial year	1 719			
- Decrease during financial year				
Acquisition cost 31.12.	1 719			
- Accrued planned depreciation 31.12.	-344			
Book value 31.12.	1 375			

	GROUP 1999 FIM thousand	1998 FIM thousand	CAA 1999 FIM thousand	1998 FIM thousand
Other capitalised long term expenditure				
Acquisition cost 1.1.	5 775	5 775	5 775	5 775
+ Increase during financial year				
- Decrease during financial year				
Acquisition cost 31.12.	5 775	5 775	5 775	5 775
- Accrued planned depreciation 31.12	-5 697	-5 550	-5 697	-5 550
Book value 31.12.	78	225	78	225
Land				
Acquisition cost 1.1.	223 649	221 229	223 649	221 229
+ Increase during financial year	39	2 422	39	2 422
- Decrease during financial year	142	-2	-1703	-2
Acquisition cost 31.12.	223 830	223 649	221 985	223 649
Buildings and structures				
Acquisition cost 1.1.	1 556 106	1 526 943	1 425 384	1 396 338
+ Increase during financial year	431 883	49 038	329 693	48 920
- Decrease during financial year	-25 427	-19 874	-25 150	-19 874
Acquisition cost 31.12.	1 962 563	1 556 106	1 729 927	1 425 384
- Accrued planned depreciation 31.12	-450 059	-382 780	-429 963	-368 205
- Book value 31.12.	1 512 503	1 173 327	1 299 963	1 057 179
Accrued difference between total and planned depreciation 31.12			28 045	18 808
Machinery and equipment				
Acquisition cost 1.1.	1 191 174	1 097 672	1 174 985	1 082 206
+ Increase during financial year	190 197	132 916	183 070	132 057
- Decrease during financial year	-11 699	-39 414	-11 699	-39 278
Acquisition cost 31.12.	1 369 672	1 191 174	1 346 356	1 174 985
- Accrued planned depreciation 31.12	-867 773	-770 833	-855 152	-761 000
- Book value 31.12.	501 900	420 341	491 205	413 985
Accrued difference between total and planned depreciation 31.12			11 467	500
Ground structures				
Acquisition cost 1.1.	1 139 912	1 106 939	1 139 226	1 106 253
+ Increase during financial year	82 596	34 073	81 804	34 073
- Decrease during financial year		-1 099		-1 099
Acquisition cost 31.12.	1 222 508	1 139 912	1 221 030	1 139 226
- Accrued planned depreciation 31.12	-605 674	-550 021	-605 377	-549 840
- Book value 31.12.	616 834	589 891	615 653	589 386
Other shares				
Acquisition cost 1.1.	2 143	898	36 132	34 080
+ Increase during financial year	565	1 245	3 932	2 051
- Decrease during financial year				
Acquisition cost 31.12.	2 708	2 143	40 063	36 132
TOTAL				
Acquisition cost 1.1.	4 144 624	3 980 885	4 027 500	3 864 990
+ Increase during financial year	708 854	224 815	600 391	223 449
- Decrease during financial year	-36 983	-61 076	-38 552	-60 939
Acquisition cost 31.12.	4 816 494	4 144 624	4 589 339	4 027 500
- Accrued planned depreciation 31.12	-1 945 731	-1 723 312	-1 912 373	-1 698 723
- Book value 31.12.	2 870 763	2 421 312	2 676 966	2 328 776
Accrued difference between total and planned depreciation 31.12			39 511	19 308
Total depreciation on fixed assets, FIM thousand				
- according to plan			225 499	220 789
- additional depreciations			1 251	14 712
- construction in progress				4 118
Total CAA planned depreciations 1999 and 1998			226 750	239 619

GROUP 1999 FIM thousand	1998 FIM thousand	CAA 1999 FIM thousand	1998 FIM thousand
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6. Investments

	Book value		Book value	
Subsidiary shares				
Kiinteistö Oyj Lentäjantie 1			25 645	22 145
Suomen Lentoasemapalvelut Oy			400	400
Kiinteistö Oyj Turun Lentorahti			5 000	5 000
Kiinteistö Oyj Lentäjantie 3			5 646	5 646
Lentoasemakiinteistöt Oyj			1 000	1 000
			<u>37 690</u>	<u>34 190</u>
Shares in associated companies				
Acquisition cost 1.1.	201	150		
Additions	134	51		
Acquisition cost 31.12.	<u>335</u>	<u>201</u>		
Other shares and similar rights				
Shares	2 373	1 941	2 373	1 941
Total shares and similar assets	<u>2 708</u>	<u>2 143</u>	<u>40 063</u>	<u>36 132</u>
Other investments				
Investments in financial markets 1.1.	74 953	69 981	74 953	69 981
Additions during financial year	44 024	4 972	44 024	4 972
Investments in financial markets 31.12	<u>118 977</u>	<u>74 953</u>	<u>118 977</u>	<u>74 953</u>
Other investments in total	<u>118 977</u>	<u>74 953</u>	<u>118 977</u>	<u>74 953</u>

7. Companies of the CAA Group

			Profits		
Group companies			1999	1998	
Kiinteistö Oyj Lentäjantie 1			1 100	298	
Suomen Lentoasemapalvelut Oy			32	533	
Kiinteistö Oyj Turun Lentorahti			14	-4	
Kiinteistö Oyj Lentäjantie 3			702	-1 894	
Lentoasemakiinteistöt Oyj			-26		
Associated companies	No. of shares	Group's holding in per cent	Book value	Group's capital holding	Result for financial year
Nurminen Airport Services Oy	75	25	150 000	311 423	440 508
Turku Touring Oy	8	1,3	23 783		

8. Substantial items in receivables carried forward

Receivables carried forward for the financial year include the Justice Ministry's share of financing in investment projects of FIM 10,829 thousand, value added tax credits of FIM 6,675 thousand, and interests receivable on cash deposits of FIM 5,566 thousand.

	GROUP 1999 FIM thousand	1998 FIM thousand	CAA 1999 FIM thousand	1998 FIM thousand
9. Additions and reductions in equity items				
Equity capital				
At beginning of financial year	1 097 236	1 097 236	1 097 236	1 097 236
+ additions / reductions				
At end of financial year	1 097 236	1 097 236	1 097 236	1 097 236
Other equity				
At beginning of financial year	1 262 131	1 262 131	1 262 131	1 262 131
Retained profits	295 504	203 539	288 623	215 016
Shareholder dividend	-28 500	-21 982	-28 500	-21 982
Share of depreciation difference entered into profit provisions for previous financial year		11 876		
	267 004	193 280	260 123	193 035
Profit for the financial year	64 453	94 251		
Change in depreciation difference entered into profit for financial year	20 519	7 973		
Profit (+) loss (-) for financial year	84 972	102 224	84 970	95 588
At end of financial year	1 614 106	1 557 635	1 607 224	1 550 754
Total capital	2 711 342	2 654 871	2 704 460	2 647 990
10. Appropriations				
Accumulated depreciation difference			39 511	19 308
Compulsory provisions			2 160	2 160
The costs of making computer systems Year 2000 compliant came out of compulsory provisions for 1998.				
11. Long term liabilities				
Debt repayable after five years or longer				
Loans from financial institutions	425 405		336 209	
12. Substantial items of accrued expenses				
Expenses accrued by the CAA during the financial year include holiday pay charges plus social costs of FIM 70,746 thousand; the Labour Ministry's share of investment project financing of FIM 13,283 thousand.				
Expenses accrued by the Group during the financial year include holiday pay charges plus social costs of FIM 71,581 thousand; the Labour Ministry's share of investment project financing of FIM 13,283 thousand				
13. Funding from the state budget				
Financing for services rendered				
For services sold to the Air Force			29 262	29 988
Reimbursement for standby duties			27 200	27 200
For services sold to the Border Guard Service			450	450
For services sold to the Meteorological Institute			1 323	1 293
Maintenance of rescue services			500	2 294
Subvention for vocational training			4 000	6 039
			62 735	67 263
Unearned income				
For carrying out capital projects			12 898	25 017
For operational procedures			674	14 942
			13 573	39 959
14. Personnel covered by state funding				
Number of staff			55	79
Paid salaries and remunerations			5 860	7 861
15. Funding from local authorities				
Unearned income				
For carrying out capital projects			3 000	9 850
16. Funding from the EU				
Unearned income				
For carrying out capital projects			7 374	203

	GROUP 1999 FIM thousand	1998 FIM thousand	CAA 1999 FIM thousand	1998 FIM thousand
17. Guarantees, pledges and liabilities				
Guarantees on behalf of Group companies :				
For Kiinteistö Oyj Lentäjäntie 1	115 000	115 000	115 000	115 000
For Kiinteistö Oyj Lentäjäntie 3	80 750	85 000	80 750	85 000
Kiinteistö Oy Turun Lentorahti	9 692	10 500	9 692	10 500
Lentoasemakiinteistöt Oyj	35 500		35 500	
Pledges on own behalf:				
Kiinteistö Oy Turun Lentorahti	15 000	15 000		
Leasing liabilities				
To be paid during 2000/1999 financial year	1 186	648	266	278
To be paid later	1 250	804	330	188
Total guarantees, pledges and liabilities	258 378	226 952	241 539	210 966

18. Financial statement for Flight Safety Authority regulatory functions 1999/1998

Turnover for regulatory functions is derived from fees for the granting and renewal of various kinds of licences, for training licences for various training organizations and for operating licences for commercial aviation and maintenance companies. Charges are also made for the upkeep of the aircraft registry.

The number of persons employed by the regulatory body at the end of the financial year was 71 (64).

Income statement

	1999 Mil. FIM	1998 Mil. FIM
Turnover	4,9	4,5
Personnel costst	18,0	16,0
Other costs	4,0	4,4
General costs		
office/premises costs	1,1	3,1
air survey costs	2,9	2,8
data services	0,3	0,3
postage	0,7	0,3
General costs, total	5,0	6,4
Operating costs, total	27,0	26,8
Operating surplus/deficit	-22,1	-22,3
Depreciations	0,7	0,6
Profit (deficit) for the financial year	-22,8	-22,9

Changes to balance sheet capital items

	1999 Thou. FIM	1998 Thou. FIM
Intangible rights		
Acquisition cost 1.1.	2 435	624
Additions/Investments -99	63	1 811
Acquisition cost 31.12.	2 498	2 435
-Accrued planned depreciations 31.12.	-1 131	-736
Book value 31.12.	1 367	1 699
Machinery and equipment		
Acquisition cost 1.1.	8 170	7 986
Additions/Investments -99		184
Acquisition cost 31.12.	8 170	8 170
-Accrued planned depreciations 31.12.	-6 936	-6 601
Book value 31.12.	1 234	1 569

19. The CAA in the government budget 1999

During the financial year, FIM 567.2 million was spent on capital investments, whereas the budget estimated expenditure to reach FIM 600 million, assuming that the profit target was fulfilled. The CAA was authorized to make investment related borrowing commitments totalling FIM 600 million. FIM 133.4 million of this authorization was used.

The CAA was granted the authority to borrow FIM 200 million. FIM 196.2 million was borrowed on the basis of loan authorization for 1998, so that none of the loan authorization for 1999 was used.

The CAA was granted the authority to provide directly enforceable guarantees without requiring counter guarantees to its subsidiaries which provide airport and air navigation services and to its property companies concerned with the operations of the CAA as assurance for loans of up to FIM 100 million. During the financial year the CAA gave such guarantees to a total of FIM 95 million.

Key figures

	1996 actual	1997 actual	1998 actual	CAA 1999 budgeted	1999 actual
Turnover, FIM million	840,0	971,4	1 086,8	960,0	1109,5
- change %	11,4	15,6	11,9	-1,2	2,1
Operating profit, FIM million	274,8	310,9	340,6	282,0	314,8
-profit as % of turnover	32,7	32,0	31,3	29,4	28,4
Profit, FIM million	43,8	73,2	95,6	30,0	84,9
profit as % of turnover	5,2	7,5	8,8	3,1	7,7
Return on invested capital-% 1)	1,6	2,5	3,0	1,6	2,7
Solvency ratio-% 2)	84,8	85,2	80,7	76,0	77,7
Investments as % of turnover	34,9	25,9	43,0	51,0	51,1
Number of personnel	1629	1670	1766	1680	1852

Formulae:

1) Net profit - income on financing + financing costs / invested capital (balance sheet total - interest free debt)

2) Own capital + reserves / balance sheet total

20. CAA electricity grid operations

Itemized statement for electricity grid and sales as required by the Electricity Act (386/1995).

Principles for dividing joint costs and balance sheet items

Balance sheet

Other costs

A proportion of Helsinki-Vantaa airport's general costs has been allocated to the electricity grid distribution operations of its power plant to cover running costs. In addition a proportion of CAA GROUP/Head Office expenses has been allocated for electricity supply operations in regard to airport running costs.

Balance sheet

Changes in balance sheet items during financial year 1999-1998

When electricity grid operations began in 1996 the opening balance sheet consisted of fixed assets for carrying out such operations (equipment and buildings). In addition under balance sheet liabilities, assets have been divided into basic equity capital and other opening phase capital.

Buildings and structures

Acquisition cost 1.1.

Additions during financial year

Acquisition cost 31.12.

- Accrued planned depreciations 31.12.

Book value 31. 12.

Machinery and equipment

Acquisition cost 1.1.

Increase during financial year

Acquisition cost 31.12

- Accrued planned depreciations 31.12.

Book value 31.12.

	1999 Thou. FIM	1998 Thou. FIM
Acquisition cost 1.1.	641	641
Additions during financial year	641	641
- Accrued planned depreciations 31.12.	-641	-582
Book value 31. 12.		59
Acquisition cost 1.1.	50 780	47 761
Increase during financial year	630	3019
Acquisition cost 31.12	51 410	50 780
- Accrued planned depreciations 31.12.	-37 773	-35 273
Book value 31.12.	13 637	15 507

Investment projects in progress

Machinery and equipment

550

Other receivables

Financial receivables from the CAA

Short term creditors

Accounts payable relate to purchases for the grid operations. Accrued expenses include obligatory staff holiday provisions and occasional performance related bonuses.

Staff

During the financial year an average of 9 persons (9) were employed on the electricity grid operations.

POWER PLANT

Income statements	GRID OPERATIONS		SALES OPERATIONS	
	1999	1998	1999	1998
	Thou. FIM	Thou. FIM	Thou. FIM	Thou. FIM
NET TURNOVER	11 346	10 235	16 465	16 721
EXPENSES				
Raw materials and services				
Purchases during financial year	216	279	24	4
External services	3 805	3 162	15 894	15 297
Staff expenses				
Wages and salaries	1 615	1 625	209	211
Ancillary staff costs				
Pension expenses	307	307	39	39
Other social security expenses	86	99	12	13
DEPRECIATIONS AND DEDUCTIONS IN VALUE				
Depreciation according to plan				
Buildings and structures	59	59		
Machinery and equipment	2 472	2 323		
Total depreciations and deductions in val.	2 531	2 382		
Other operating charges	2 068	2 041	95	97
OPERATING PROFIT	718	340	192	1 059
FINANCING INCOME AND EXPENSES				
Interest and other financial expenses	-3	-20		
Total	-3	-20		
PROFIT BEFORE APPROPRIATIONS AND TAXES	715	320	192	1 059
PROFIT FOR THE FINANCIAL YEAR	715	320	192	1 059

Balance Sheet	POWER PLANT	
	Grid Operations	
	1999	1998
	Thou. FIM	Thou. FIM
ASSETS		
NON CURRENT ASSETS		
FIXED ASSETS		
Tangible assets		
Buildings and structures		59
Machinery and equipment	13 637	15 507
Construction in progress		550
	13 637	15 566
CURRENT ASSETS		
INVENTORIES AND FINANCING ASSETS		
Debtors		
Trade debtors	960	782
Prepayments and accrued income	144	144
Other debtors	2 605	305
	3 709	1 231
TOTAL ASSETS	17 346	17 347
LIABILITIES		
OWN EQUITY		
Basic equity capital	7 800	7 800
Other capital at start-up phase	5 200	5 200
Retained earnings	2 255	1 935
Profit for the financial year	715	320
	15 970	15 255
CREDITORS		
Short term		
Trade creditors	456	1 419
Other creditors	66	
Accruals and deferred income	854	673
	1 376	2 092
TOTAL LIABILITIES	17 346	17 347

Return on invested capital

Return on invested capital for grid operations was 4.5 % (2.2 %)

Formula:

$$100* \frac{\text{(profit before extraordinary items + interests and other financial costs)}}{\text{invested capital}}$$

PROPOSAL ON THE USE OF PROFIT

The Board proposes that the Council of State approve the Closing of the Accounts for 1999 and that the profit for the financial year of FIM 84, 970, 322 be assigned as profit of FIM 25,000,000 to the state and that the balance of FIM 59, 970, 322 be entered into the profit and loss account for previous financial years.

Vantaa, March 23rd, 2000

Jussi Järventaus
Pekka Hurtola
Mona Björklund
Vilho Hänninen
Matti Puhakka
Tuula Lindberg

The foregoing Financial Statement has been drawn up in accordance with good accounting practice. An auditors' report on the accounts has been issued today.

Vantaa, March 27th, 2000

Seppo Akselinmäki, JHTT
Markku Pajunen, KHT

AUDITORS' REPORT

We have examined the CAA accounts, balance sheet and the closing of accounts, administrative practices and finances of the CAA Group for the financial year 1st January to 31st December 1999. The balance sheet drawn up by the Board and managing director contains income statements, balance sheets and appendices for the annual report of the Civil Aviation Administration and the CAA Group.

The audit has been carried out as comprehensively as required by good auditing practice. The bookkeeping and financial statement principles, contents and method of presentation have been examined and it is affirmed that the closing of the books contains no essential flaws or deficiencies. An audit of the management has confirmed that the members of the Board and the managing director have acted legally within the State Enterprises Act and the Civil Aviation Act.

The management of the Civil Aviation Administration has been organized properly. The bookkeeping has been arranged and conducted in accordance with the regulations and good accounting practice.

The closing of the accounts has been drawn up in compliance with prevailing regulations and good accounting

practice. The closing of the accounts and the financial statement for the CAA Group with appendices, together with the annual report delivered to the Council of State provide an accurate account of the Civil Aviation Administration's finances and the achievement of the targets set for it by Parliament and the Council of State.

In accordance with the Electricity Marketing Act we have examined the separately itemized income statements, balance sheets and appended information for these activities as presented in the notes to the financial statements. We hereby declare that in all essential respects, the accounts have been drawn up correctly in accordance with the Electricity Market Act and the rules and provisions pertaining to it.

We recommend that the financial statement and the financial statement for the CAA Group be confirmed and that the proposal made by the Board in its annual report for the disposal of the profit for the financial year be accepted.

Vantaa, March 27th, 2000

Seppo Akselinmäki, JHTT
Markku Pajunen, KHT

The national aviation authority for

S A F E T Y I S S U E S

The Flight Safety Authority, the independent regulatory unit of the Civil Aviation Administration, supervises the safety of air traffic and other aviation related operations, and of airports and air navigation. As a national aviation authority, the Flight Safety Authority issues Finnish aviation regulations. Its responsibilities include issuing various permits and licences, as well as supervising the operations of permit and licence holders. The Flight Safety Authority approves aviation equipment and maintains a registry of aircraft and endorses aircraft mortgages. The aim is to maintain Finnish aviation safety to an internationally high standard.

The income for these regulatory functions derives mainly from the various licence and authorization fees as well as supervision fees. The overall costs in 1999 were FIM 24,2 million and income was FIM 4,9 million. The deficit in the Authority's costs is covered by other activities of the CAA.

SAFETY IN 1999

The Ministry of Transport has set the objective of the Flight Safety Authority as being to achieve a constant decline in the annual number of aviation accidents and deaths from such accidents despite the increase in air traffic. This is also the goal set for the activities of Europe's JAA (Joint Aviation Authorities). Finland has been able to adhere to its objectives.

The past year has been rather a good one for Finnish aviation safety, as was the year before. There were no accidents in commercial aviation. One business jet was damaged on landing because of a landing gear malfunction.

There were three accidents involving private aviation, in which one person died. An experimental aircraft cras-

hed into the ground at Mikkeli, killing the pilot. The pilot of a helicopter was injured in an accident in Pello. A light aircraft was destroyed at Kittilä but without causing personal injury.

In addition to the previously mentioned business jet, 11 Finnish aircraft were damaged in private aviation accidents. Nine of these cases related to landing failures and two were the result of unsuccessful takeoffs.

In recreational aviation two parachute jumpers and three hang-glider pilots were injured. There were nine incidents of damage involving sail planes and a further nine involving ultra-light aircraft. No one was injured, however.

INCIDENTS AND OCCURRENCES

Examination of incidents and occurrences provides information on possible aviation risks and risk trends. Follow-up and investigation is based on the reports made to the Flight Safety Authority. During 1999, reports were made concerning about five hundred (508) incidents or occurrences involving commercial or private aviation. The total number of incidents fell slightly (539/508) from the year before. The number, however, does not in itself provide an accurate picture of the level of aviation safety; for this we need a method of classifying seriousness.

Of the cases reported to the Flight Safety Authority during the year, 4.5 per cent were aviation accidents, aircraft damage or serious incidents. This was half the amount of the year before. Accidents and serious incidents are investigated by the Accident Investigation Board of the Ministry of Justice.

For the future, the intention is to develop a uniform reporting system for incidents and occurrences for the

whole of Europe. Finland has actively followed the European Union's work towards creating a common reporting and classification system. Eurocontrol is also preparing an incident classification system for the air navigation branch.

Eurocontrol's Safety Regulations Commission (SRC) is currently carrying out an extensive study of official requirements for the approval of air navigation systems and of the risk analysis principles of the various systems. The Flight Safety Authority will put these principles into practice when they are ready.

JOINT EUROPEAN AVIATION NORMS

Cooperation among the members of the Joint Aviation Authorities, the JAA, has spawned a number of so called Joint Aviation Requirements, JAR, concerning air worthiness, maintenance and aviation operations.

Preparations were made during 1999 for the introduction of a number of JAR requirements in Finland. Aviation regulations are based to an increasing extent on joint European JAR requirements, which are then put into effect in accordance with national legislation for Finnish aviation requirements.

Joint European requirements are also enforced among European Union member states by EU regulations, but to a slower timetable because of the time-consuming nature

of the process. It is the European Union's objective to raise the regulations relating to aircraft safety and operations to the highest standard currently attained within the Union on the basis of the JAA requirements.

During 1999, the JAR-OPS (Operations) requirements for commercial passenger and cargo transport helicopters came into force in August. The requirements for light aircraft were postponed until April 2000.

Joint European JAR-FCL (Flight Crew Licensing) requirements governing flight training, pilots' licences and related medical fitness came into force for instrument flying, type ratings and multi-engine class ratings and related training, in July 1999. The aviation authority had already taken over sole responsibility for conducting the licence theory test the year before.

It was regarded as important by the Flight Safety Authority that aviators too should have the greatest possible confidence in the new examination system. In collaboration with aviation organizations the pilots' licence theory test and the multiple choice questions contained in it were assessed and questions were developed over the year. As a result it was concluded that the theory test does correspond to the skills required of private pilots.

Most of the JAR-FCL requirements came into force at the beginning of 2000



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