

*Civil Aviation Administration*

A N N U A L R E P O R T



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*Civil Aviation Administration*  

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**A N N U A L R E P O R T**  
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## REPORT OF THE DIRECTOR GENERAL

The healthy Finnish economy carried air transport with it to new records in 1997. Domestic traffic saw the fastest growth, with passenger numbers rising by a full 14 %, thus finally breaking the previous record set in 1990. International transport also rose sharply, by an average of 9%. Because of a structural change in international traffic, purely charter operations actually fell - somewhat surprisingly - by 4 %, though offsetting this was a 13 % increase in scheduled journeys, hence that 9 % average increase.

Once again the rule held true that air travel in Finland changes in step with the general economic trend, with an amplification factor of two. In fact this is not a purely Finnish phenomenon, since all European airlines witnessed an upturn in traffic of about 9 % in 1997. This was despite the fact that the average economic growth among European countries was only about half of Finland's, which exceeded 5 %. This suggests that in Finland, whose remoteness and wide open spaces are ideal for air travel, this form of transport is likely to carry on growing unabated.

The airports in Finland make up an infrastructure comparable to the national roads and rail network, and are maintained and improved entirely from the revenues of the users, as a single enterprise. If you look at the airports as separate entities, nowhere near all of them are profitable, but the Civil Aviation Administration has taken to heart the goal set for it by the government: the profitable management of the airport network and air navigation system as a single entity, to the standard and extent that the demand for regular scheduled air traffic requires. At the same time, about FIM 20 million worth of regulatory functions must be funded by the paying air passenger, as must the services for private aviation, to at least the same amount.

It is against this background that the CAA has to face the to some extent unwarranted criticism that it is benefiting financially from its various official bodies and is squeezing private aviation. The CAA's official body, the Flight Safety Authority, is responsible for official supervision to international norms and principles, of the airlines on the one hand and the CAA airports and air navigation activities on the other. This should in no way, even in theory, cause any kinds of impartiality or competition problems, since the Civil Aviation Administration may not, owing to its line of business, undertake any activity in competition with enterprises supervised by the Flight Safety Authority nor, on the other hand, does the CAA have any domestic competitors in airport or air navigation services.

We believe we carry out our monopoly function fairly efficiently; indeed, our airport charges are among the lowest in Europe and the economic performance of our institution is tolerable.

### Financial result

The price-weighted volume of demand for Civil Aviation Administration services in 1997 swelled by 9 %. In addition, expanded commercial activities, mainly at the new central terminal of Helsinki-Vantaa airport added 7 % to CAA turnover. Altogether, turnover rose by 16 % to 971 million. The expansion of air traffic and new activities improved the financial standing of the CAA, which allowed us to reduce airport charges and undertake selective maintenance and improvements in services. It was partly because of these improvements that a passenger survey assessed the service at Helsinki-Vantaa airport as among the best in Europe.

The financial result for the CAA after depreciations and extraordinary items was FIM 73 million in profit. This can be regarded as moderately good. It exceeds by FIM 30 million the long term goal of 4 % return on basic capital set by the ministry of transport for self-financing national infrastructure management bodies. Outgoings for 1997 included extraordinary costs which to some extent hampered our income, and about FIM 20 million net costs on official activities, so that the profit on operations proper can be regarded as sufficiently good. As far as CAA operational policy is concerned it is not even necessary to strive for a better result than this for the maintenance of a basic social infrastructure, simply that the productivity gains from the growth in demand and improvements in operation be justifiably passed on to the customer as lower prices. The airports and the air navigation system are integral parts of the air traffic service chain, so that the goal of this infrastructure too, is to improve the competitiveness and operational capabilities of air transport.

### Safety goals

Safety is the fundamental bedrock of Civil Aviation Administration operations and underpins everything the aviation profession does. Improved customer friendliness, greater flexibility, greater attention to the needs of the individual - in sum, the provision of all kinds of services, the airport and air navigation improvements - all take place under the umbrella of safety. If smooth functioning and, perhaps, even environmental questions sometimes conflict with questions of safety, then the quest for safety wins every time.

Even minor disruptions in air traffic receive a lot of publicity. This is an indication of society's desire for well functioning and entirely risk-free air transport. It

is perfectly obvious that the Civil Aviation Administration strives to ensure that not a single accident or serious incident should occur in commercial aviation as a result of CAA action. The quest for air safety has been well accomplished.

Classification of aviation malfunctions as those containing risks or situations in which activity has been abnormal or against the rules but which has not, however, entailed any real risk, is possible only after a careful examination of the event and study of the conclusions. Air traffic safety entails as low a reporting threshold as possible and a detailed analysis of incidents. It is not possible to draw generalized conclusions on air safety, especially trends or international comparisons, merely from the number of incident reports, because in recent years the reporting threshold has been deliberately lowered and because such incidents have not so far been classified according to seriousness.

International reporting cultures and classifications are widely divergent. Having studied the reporting systems of various developed aviation countries I can state that prevailing Finnish reporting practice is good and the notification threshold low, which as far as safety operations is concerned is a good thing. From the beginning of 1998 the CAA's Flight Safety Authority has adopted an experimental classification of mishaps according to seriousness. It indicates that about 500 air traffic malfunction reports were made in 1997, of which 20 concerned CAA activities related to commercial passenger traffic, one or two of these entailing certain risks. Judging from investigation reports from previous years we can estimate that there have been between zero and three cases a year involving certain risks.

As I have said, our aim is to provide good, risk-free operations and to continue to improve our services for our clients, i.e. the passengers and the airlines. We

belong in the same air transport service chain as the airlines and we know we are succeeding if air safety remains at its present excellent level and the airlines flourish.

### **Few delays, full service**

Minimal delay is the primary yardstick for measuring the services of the airports and air navigation facilities. The CAA endeavours - weather permitting - to ensure that CAA activities result in no more than 1 % of flights at Helsinki-Vantaa being delayed by more than 15 minutes, and fewer than 0,5 % at other airports in Finland. We did not quite achieve this figure in 1997. Congestion over European airspace caused delays to about 6 % of flights arriving and leaving Finland. The corresponding figure for the whole of Europe is almost three times as high. No single country can do much to alter these figures, but air navigation services throughout Europe are cooperating to reduce even this level of delays.

The passenger services available at an airport terminal contribute enormously to making the experience of air travel a pleasant one. A large proportion of the total travel time is spent in this transit phase, particularly on domestic and European flights. In recent years, all our airports, in particular our flagship, Helsinki-Vantaa, have taken enormous strides for the better, in terminal services, comfort and ease of getting around. And more is on the way. It is important to us that this country's main airport compares so well internationally in terms of service and low prices. We have done rather well in bringing this about and we shall endeavour to maintain our position. At the moment the deficiencies in service at Helsinki-Vantaa concern the check-in and arrivals lobbies, which are already being expanded, for completion by the end of 1999.

### **Outlook for 1998**

A liberal aviation policy and the prevailing economic upturn led to a higher growth in commercial air transport operations than the number of passengers, at a full 12 %. This growth makes rapid increase in runway capacity an even more urgent priority at Helsinki-Vantaa. In a couple of years' time the present intersecting runway system will restrict rush hour traffic and cause delays. When the new runway is completed in 2002 it will raise the airport capacity from its present 43 operations an hour to 75.

Despite the huge investments currently under way, the Civil Aviation Administration wants to continue a realistic policy of reducing its charges, which requires careful timing of new ventures and precise monitoring of demand trends. Like all other airport and air navigation activities, the FIM 600 million runway programme is to be funded entirely out of the users' pockets, and not from the collective tax payer.

The outlook for air transport and the airports in 1998 is of course bound up with the general economic prospects for the country. Air traffic growth will remain around 8 or 9 % at the beginning of the year, but will probably tail off towards the end to between 4 and 5 %. But even this growth would suffice to keep the CAA's finances stable, with sufficient capital for investment enabling us to maintain the high standard of services of our airport network. On the expenditure side we must be prepared for the likely cessation of tax-free sales at the end of 1999, yet despite this it is possible that we shall again be able to reduce airport charges slightly, and maintain Finland's position as one of the cheapest in Europe for airport and air navigation charges.

Mikko Talvitie  
*Director General*

# THE CIVIL AVIATION ADMINISTRATION IN BRIEF

**The Civil Aviation Administration** provides its customers - the air traffic operators and passengers - airport and air navigation services which are safe, of an internationally high standard and competitive, and develops businesses in support of these core services.

It maintains and develops the Finnish airport network and air navigation system as a single entity. The network comprises 25 airports, of which 21 are involved in regular air traffic.

It acts as the Finnish aviation authority and is responsible for flight safety functions in this country. It is also responsible for Finnish aviation policy in conjunction with the Ministry of Transport and the Ministry of Foreign Affairs.

The CAA is a state enterprise funded by its users and its general operational and profit targets are laid down by the Council of State. It determines its activities and its investments independently according to the demand for its services and its customers' needs.

## 1997 at a glance

- The Aviation Administration (board of aviation) was 25 years old on March 1, 1997.
- There were on average 1,660 people working for the CAA, 1,723 in the entire self-financing concern.
- There were 9.1 million flights in Finland - more than ever before.
- There were a record 2.6 million domestic flights.
- A total of 11.7 million passengers passed through CAA airports.
- Helsinki-Vantaa airport handled a new peak number of 8.5 million passengers.



# HIGHLIGHTS OF 1997

	1997	1996	change
	1000 FIM	1000 FIM	%
<b>Turnover</b>	<b>971 353</b>	<b>840 045</b>	<b>16%</b>
<b>Operating costs</b>	<b>665 785</b>	<b>567 786</b>	<b>17%</b>
<b>Operating profit</b>	<b>310 877</b>	<b>274 768</b>	<b>13%</b>
 <b>Result for the accounting period</b>	 <b>73 272</b>	 <b>43 835</b>	 <b>67%</b>
 <b>Investments, total</b>	 <b>251 713</b>	 <b>294 218</b>	 <b>-14%</b>
Land areas	9 830	565	1640%
Machinery and equipment	98 828	138 434	-29%
Airports	55 555	25 980	114%
Buildings	79 935	119 449	-33%
Other investments	7 565	9 790	-23%
	<b>number</b>	<b>number</b>	
<b>Passenger movements, total</b>	<b>9 066 566</b>	<b>8 245 462</b>	<b>10%</b>
Domestic traffic (dep+transfer)	2 640 042	2 322 939	14%
International scheduled traffic (dep+arr+transfer)	4 935 452	4 372 284	13%
International charter traffic	1 491 072	1 550 239	-4%
International, total	6 426 524	5 922 523	9%
Other traffic	19 993	49 101	-59%
 <b>Flights, total</b>	 <b>331 418</b>	 <b>324 893</b>	 <b>2%</b>
Domestic traffic	68 913	61 172	13%
International traffic (scheduled + charter)	92 550	82 284	12%
Overflights	14 132	10 958	29%
International flights, total	106 682	93 242	14%
Other civil flights	106 511	115 022	-7%
Military flights	49 312	55 457	-11%
 <b>Personnel, total (Dec. 1997)</b>	 <b>1 670</b>	 <b>1 629</b>	 <b>3%</b>
Airports	1 212	1 188	2%
Air navigation services centers	119	113	5%
Head office	221	207	7%
Internal service units	118	121	-2%

# REPORT OF THE BOARD

## Service, operational and profit targets in 1997

The Council of State set the following service and operational objectives for the CAA in 1997:

- The CAA shall, according to its purview and its duties, ensure that all aviation operations are carried out as safely, efficiently, appropriately and economically as possible.
- The CAA shall supply and develop its services in accordance with business principles, taking into account the needs of its customers, including military aviation, and society.
- The first priority of the CAA is to safeguard those airport services which are vital to the operation of scheduled air traffic.
- Airports and air navigation systems shall be developed in accordance with demand.
- The most important targets for investment in 1997 are the development of Helsinki-Vantaa airport and the completion of the overhaul of the air navigation system.
- The profit target for 1997 was FIM 42 million. The actual result for the fiscal year was FIM 73.2 million.



**The 1997 Board members:**

(left) Matti Puhakka  
Seppo Simola  
Mikko Talvitie  
Pekka Hurtola  
Tuulikki Petäjaniemi  
Mona Björklund

## A record year for domestic flights

A record number of 9.1 million flights took place in Finland in 1997, a rise of 10 per cent over 1996. As many as 11.7 million passengers passed through CAA airports, 10 per cent more than in 1996. Air traffic increased most at Lappeenranta (up 26%), Kittilä (21%), Oulu (18%), Savonlinna (17%) and Turku (16%).

The number of passengers arriving, departing or in transit on international flights reached 6.4 million, 9 per cent more than the year before. The number of scheduled flights increased by 13 per cent to 4.9 million. The number of passengers on international charter flights declined by 4 per cent to 1.5 million. This decline was partly resulted from some charter trips being flown as regular flights.

The number of domestic flights rose by 14 per cent to 2.6 million, meaning that domestic travel exceeded its 1990 peak for the first time.

Helsinki-Vantaa airport also achieved a new record, with 8.5 million passengers departing, arriving, or in transit, a 10 per cent increase on the previ-

ous year. The 1990 peak was exceeded by half a million passengers. The number of passengers on international flights grew by 9 per cent to 5.9 million and domestic passengers by 13 per cent to 2.6 million. There were 275,417 Gateway passengers in 1997.

The volume of freight carried by air increased by 5 per cent to 95,000 tons and mail by 7 per cent to 20,000 tons.

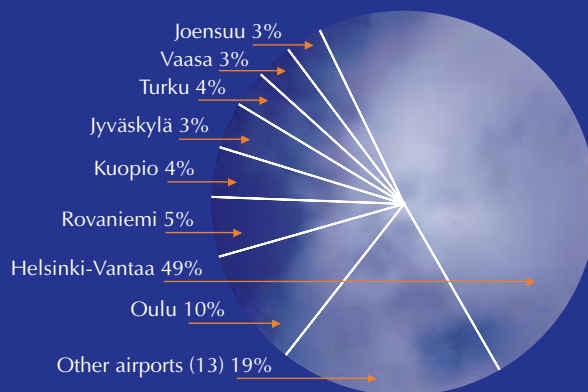
The number of commercial aircraft landings increased in 1997 by 13 per cent both in domestic and international traffic.

The number of private and military operations continued the decline begun in 1990, the decrease this time being 8 per cent compared to 1996.

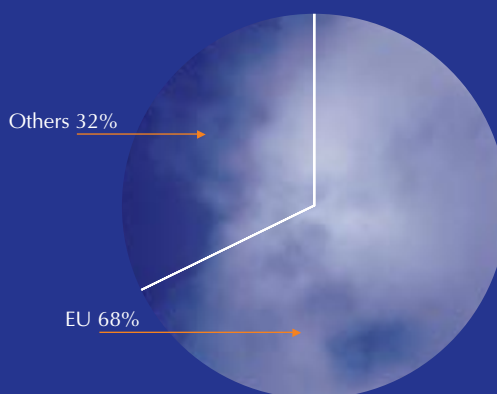
The Transpolar route, the shortest from Europe to the Far East, increased in popularity from the 104 flights flown by two airline routes to 376 flights by six airlines in December 1997. The total number of flights over Finland increased by 29 per cent.



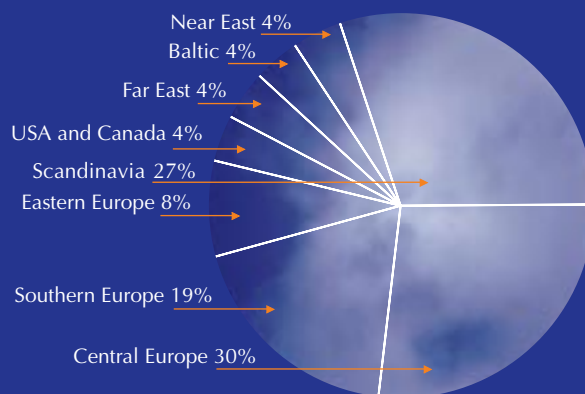
### DOMESTIC TRAFFIC DESTINATIONS 1997



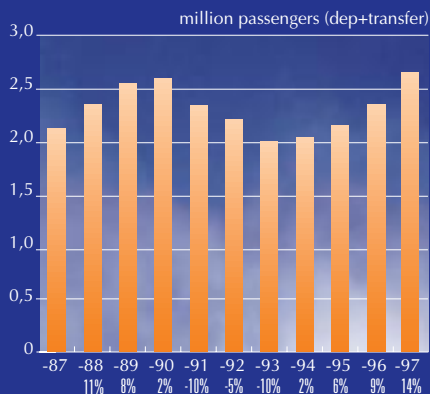
### INTERNATIONAL TRAFFIC DESTINATIONS 1997



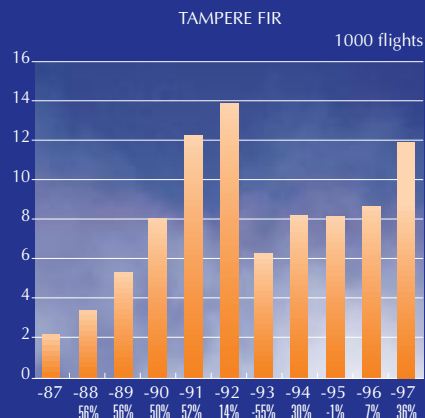
### INTERNATIONAL TRAFFIC DESTINATIONS 1997



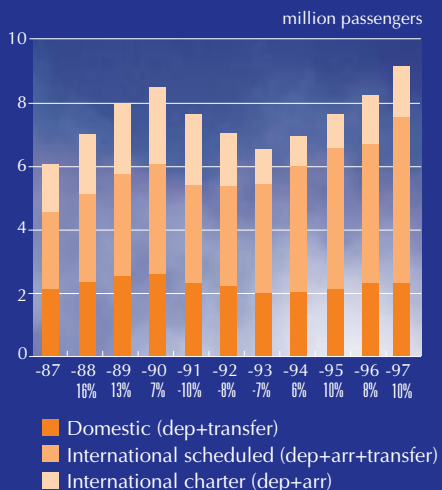
### DOMESTIC SCHEDULED TRAFFIC 1987-1997



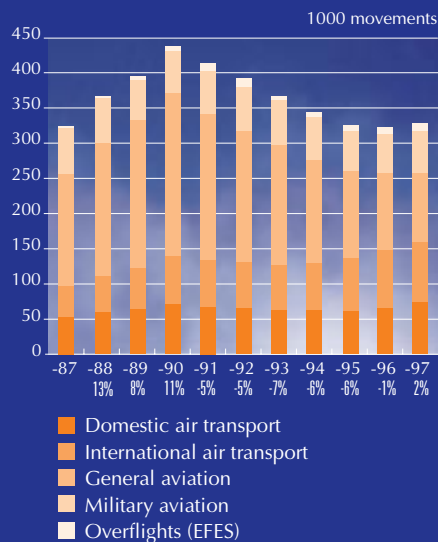
### OVERFLIGHTS 1987-1997



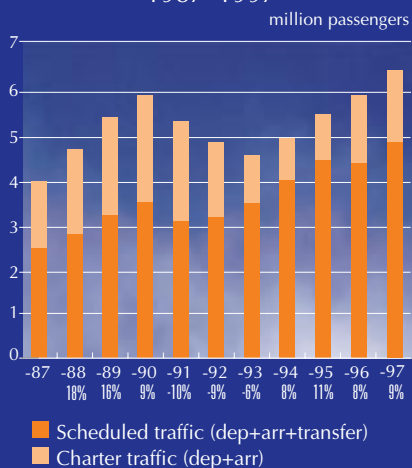
### AIR TRANSPORT 1987-1997



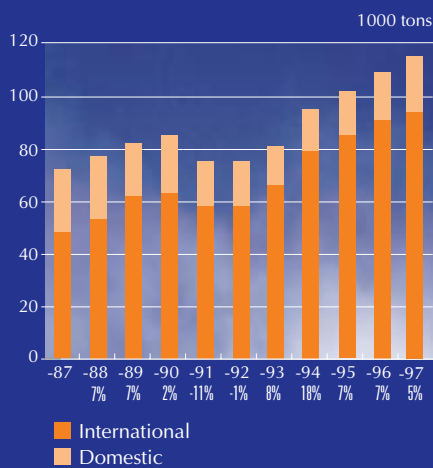
### MOVEMENTS 1987-1997



### INTERNATIONAL TRAFFIC 1987-1997



### FREIGHT TRAFFIC 1987-1997

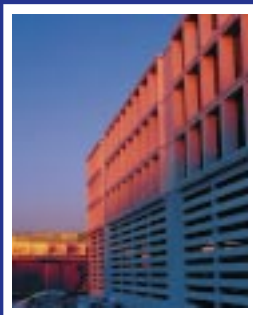


## Airports 1997

	PASSENGERS		LANDINGS		
	Domestic	International	Air transport	Military aviation	Others
Helsinki-Vantaa	2 576 274	5 900 208	68 182	979	4 746
Oulu	527 990	79 350	6 087	1 110	7 164
Turku	191 260	163 488	9 014	506	9 384
Rovaniemi	259 179	34 958	2 727	7 273	3 829
Vaasa	179 097	89 366	4 799	1 000	3 561
Kuopio	234 604	13 384	2 721	9 120	2 671
Jyväskylä	187 111	7 599	3 012	3 290	6 596
Tampere-Pirkkala	102 681	76 010	4 084	8 807	6 921
Joensuu	149 143	10 069	2 232	101	2 588
Kruunupyö	106 951	6 910	2 032	429	1 215
Mariehamn	105 229	7 273	2 982	0	1 342
Kajaani	110 975	898	1 106	174	692
Ivalo	101 784	6 244	721	312	454
Kemi-Tornio	101 810	974	1 048	63	1 474
Kittilä	93 148	9 611	795	454	514
Pori	62 182	20 485	2 615	108	9 185
Kuusamo	80 412	184	730	25	267
Savonlinna	52 713	2 045	1 318	31	356
Lappeenranta	50 125	802	2 041	32	1 219
Varkaus	37 909	66	1 399	26	366
Enontekiö	2 743	1 084	170	50	25
Helsinki-Malmi	1 822	1 051	49	110	32 830
Kauhava	321	2	47	11 592	346
Halli	37	47	9	2 394	370
Utti	19	0	2	1 326	949

## Air Navigation Service Centers

	IFR-flights	Overflights
South Finland (Tampere)	199 838	11 847
North Finland (Rovaniemi)	34 546	2 285



“Because of my work I often have to fly from Helsinki to Vaasa. I prefer to fly so that I can get back home to Espoo by the evening. I drive my own car to the airport and park it in the domestic terminal multi-story car park. Its circular shape is simple and I can walk the clean, heated passageway straight into the terminal. The best thing about the parking, though, is that it is quick and effortless. I particularly appreciate being able to pay the parking fee by credit card when I drive away - that saves time too.

“Even though I often arrive at the airport at the last minute I have never missed a flight because of the crowds. Helsinki-Vantaa airport is spacious, so it is easy to walk around. I like Vaasa airport for its one-level layout. The cafe offers an unobstructed view of the departure lounge. The terminal is light and the service friendly, too.”





Mika Hyvönen, project manager, Oy LM Ericsson Ab

## THE YARDSTICK OF CAA SERVICE

**safety, punctuality, quality of service**

The CAA's airport and air navigation services are vital for a safe and effortless flight - after all, our staff are responsible for about 700 takeoffs and landings and for seeing that about 26,000 passengers get on or off a plane every day! In improving its service the CAA always pays especial attention to air safety, punctuality and to the quality of services at its terminals

**Safety**

For passengers, safety may mean the security check they go through at the airport or the safety instructions provided by the cabin crew. But safety also means making sure the aircraft is properly serviced before the flight, that the aviation authority has approved the airline's procedures and licences and ensures that they are adhered to, that the air navigation staff are highly trained and motivated, and that skilled personnel and high quality equipment are available for maintaining the runways.

For the more than 1,600 staff at the CAA and its regulatory body, safety is paramount. Services can be

made smoother and more customer friendly, but only without stinting on safety. Should safety and flexibility be in conflict, safety wins out every time.

Air safety operations proper at the CAA include reporting of irregularities and detailed analysis of such incidents. By identifying hazardous situations we can chart possible risks and risk trends. We have consistently endeavoured to lower the reporting threshold and aviators and air service providers are encouraged to active reporting. It is the primary goal of the CAA to ensure that no single commercial aviation accident or serious risk situation occurs as a result of its own actions.

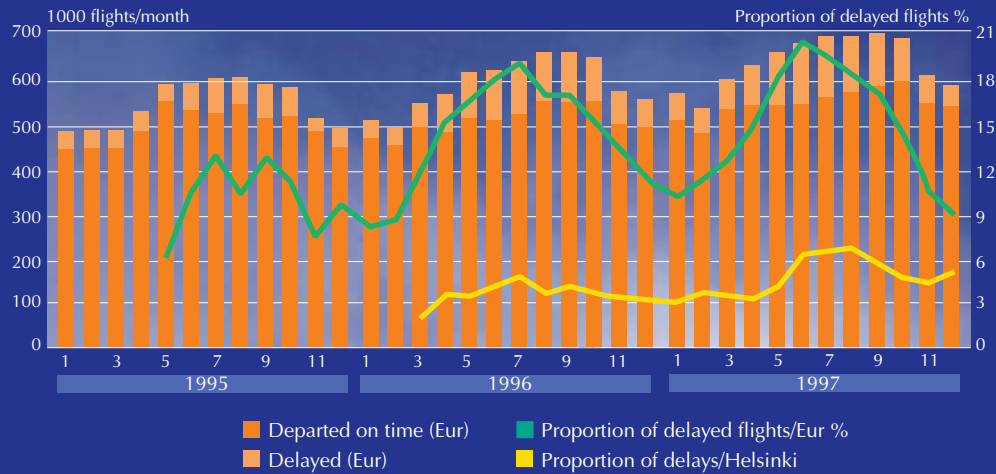
**Punctuality**

Air traffic punctuality - arrival on schedule at the appropriate airport - is perhaps the principal measure of service as far as the passenger is concerned. Punctuality, of departure as well as arrival, is also an important concern for airline finances, since any deviation from plan costs them money.

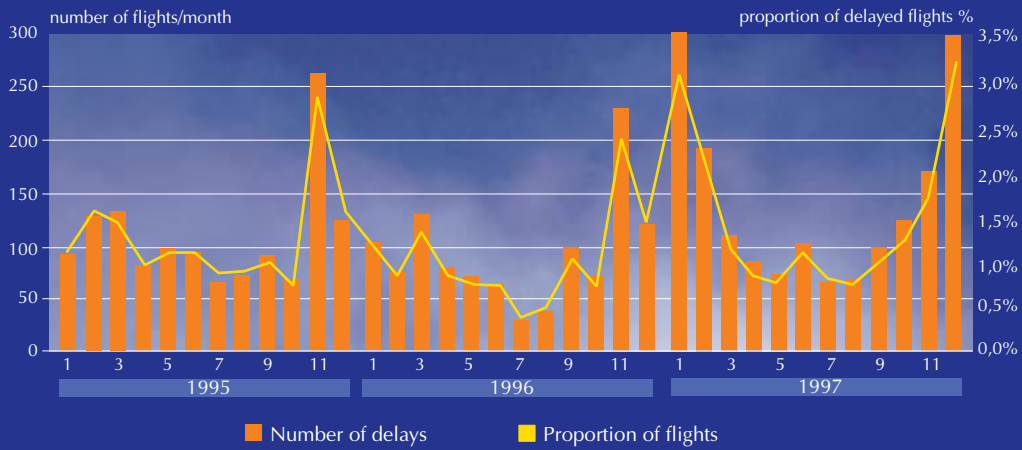
The causes of air traffic delay can be divided into



### DELAYS CAUSED BY ROUTE REGULATIONS IN EUROPE AND HELSINKI, 1995 TO 1997



### CAA DEPENDENT DELAYS AND PROPORTION OF FLIGHTS 1995 TO 1997



four main categories: the airlines, the airport infrastructure, the air navigation services, and the weather. These reasons are also mutually interdependent. There is often a chain reaction, as when a relatively easy to fix technical malfunction on a plane leads to the loss of that plane's slot, either at the airport or in the air, so that the delay mounts up. Exceptional weather may lead to the same result.

The actions of the Civil Aviation Administration may affect the capacity of the airports and air navigation staff, and by providing good maintenance equipment shorten the delays caused by winter weather. Finland has only recently begun to systematically evaluate delays and log causes. Increasing attention has been paid to delays at Europe's busy airports and in its crowded air-space for several years.

On the European scale, some 20 % of all delays are caused by air traffic control, the other delays resulting from the airlines or the weather. In Finland, the airports and air traffic control are responsible for a smaller proportion of delays, and compared to continental Europe air travel is fairly punctual - at least when it comes to those causes which the CAA can affect. According to an index developed by the airlines, delays caused by Finnish air traffic control and European air-space restrictions affecting planes leaving Finland, are only about a third or a fourth of the European average.

It is the intention of the CAA to continue to keep delays to a minimum, as a competitive advantage for Finnish air travel. We aim to ensure that no more than

1 % of takeoffs are delayed for more than 15 minutes as a result of CAA operations. As the accompanying figure shows, we almost reached this goal in 1997. The diagram also illustrates that the winter months are the most difficult. We are continuing to improve our delay monitoring techniques so as to more effectively be able to intervene in their causes.

### Quality of airport terminal services

The service that passengers receive at the airport is decisive for a successful flight. The CAA regularly monitors the standard of service at its airports in order to be able to make improvements in line with customer demands. Comparisons are made among the CAA airports annually, while service quality at Helsinki-Vantaa is compared several times a year with the leading airports of Europe.

### Helsinki-Vantaa a European leader

Helsinki-Vantaa airport came out exceedingly well in an International Air Transport Association study of service quality at European airports for 1997. The survey assessed 19 categories of service at 12 main airports in Europe. Helsinki-Vantaa emerged as number one for most airport related services. The study covered Amsterdam, Arlanda, Brussels, Paris, Copenhagen, Dusseldorf, Frankfurt, Helsinki-Vantaa, London/Gatwick, London/Heathrow, Manchester and Zurich.

Of the airports examined, Helsinki-Vantaa earned the best points for general pleasantness, smoothness of connecting flights, transport connexions to the city centre, speed of baggage reclaim, restaurants, shopping possibilities, staff friendliness and cleanliness of sanitary facilities.

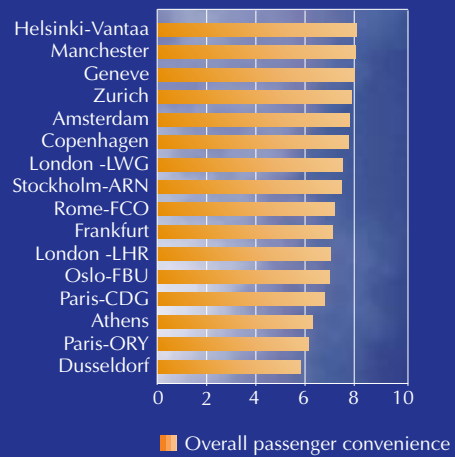
Helsinki-Vantaa will strive to maintain its present standard of service - even during the second phase of construction of the central terminal. The results of the study will be used to identify areas of the airport for improvement. In 1998 we shall be stressing the fluency of security checking and developing cooperation with both internal and external partners.

**Tampere-Pirkkala, Airport of the Year**

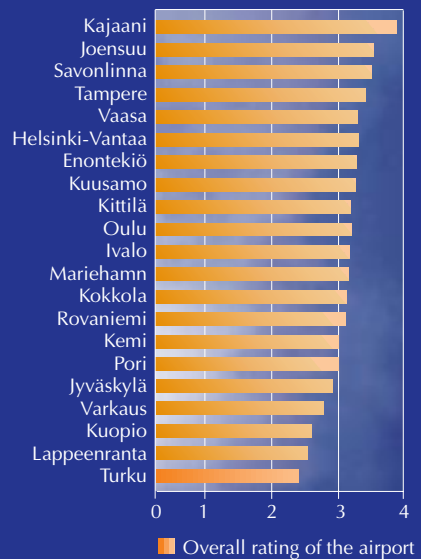
The CAA carries out passenger surveys on its own and in conjunction with Finnair. We question almost 10,000 passengers in Finland a year in order to ascertain their opinion of the quality of services at CAA maintained airports. We look into such areas as parking facilities, general appearance of the airport, information desks, signs, cafe and sales services, security inspection and the attitude of staff.

The joint survey by the Civil Aviation Administration and Finnair selected Tampere-Pirkkala airport as Airport of the Year for 1997. Among other things, passengers awarded high points for the airport building, which was renovated in 1996. This was the eighth Airport of the Year award, previous winners being Savonlinna, Kittilä, Rovaniemi, Kuusamo, Kajaani, Joensuu and Savonlinna again.

IATA AIRPORT MONITOR 1997



DOMESTIC AIRPORT USERS' PASSENGER SURVEY 1997





Peter Lasmanis, captain, SAS

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A I R L I N E



"I have been flying to Finland for about five years and in that time I have never experienced any major delays because of air traffic control or maintenance. The Helsinki-Vantaa air traffic controllers are precise and concentrated. Perhaps it's partly the Finnish character that the controllers here never say anything superfluous but keep strictly to the point.

"Cooperation with air traffic control has been effortless. The tower tells you well in advance what it wants and gives the pilot plenty of support. For example, today when I was coming into Helsinki-Vantaa, I asked for permission for a visual approach, which I received without any complications. So I was able to land quicker than with an instrument approach.

"Before I began flying MD-80 planes I flew to other airports in Finland besides Helsinki-Vantaa, such as Turku, Vaasa and Oulu. I have been able to land at all of them, no matter what the weather, the runways have always been in excellent condition."

## Ground traffic, passenger and commercial services

### Central terminal welcomes EU visitors

The second phase of the construction of the Helsinki-Vantaa central terminal began in early 1997. The work required initial temporary traffic rearrangements because the old departure bridge had to be demolished to make way for the new one. The new bridge was completed in December 1997. During the year the terminal foundations were also laid and communal shelters constructed.

The new central terminal will incorporate the check-in hall, facilities for arriving passengers, a baggage handling system, technical facilities, service areas and a link passage between the domestic and overseas terminals. The plan is to have the terminal ready by June 1999, in time to serve the numerous conference delegates during Finland's chairmanship of the EU.

The new construction will raise passenger capacity in the overseas terminal from five and a half million a year to eight million. The estimated cost of this second phase is FIM 371 million.

### VIP President

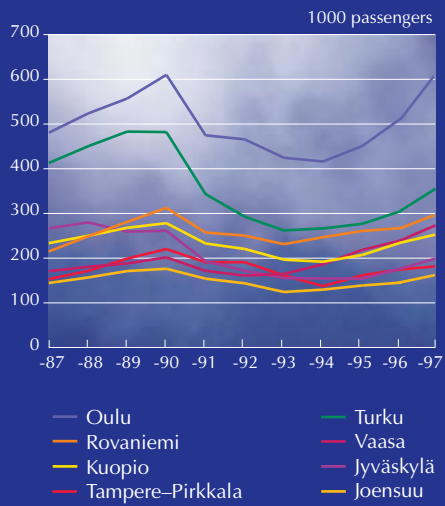
A new, high class VIP terminal has been built next door to the Helsinki-Vantaa business flight terminal. Called the VIP President, it is primarily intended for the Finnish president, members of the Council of State and their guests. President Martti Ahtisaari opened the new terminal in October 1997.

All the primary materials of the building are Finnish. The granite and glass-walled structure houses VIP and reception rooms, a press room and check-in and security inspection facilities. The apron level of the terminal was enlarged to accommodate even an MD-11 class plane in front.

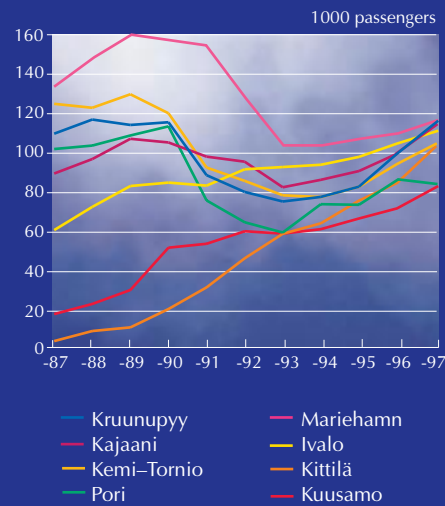




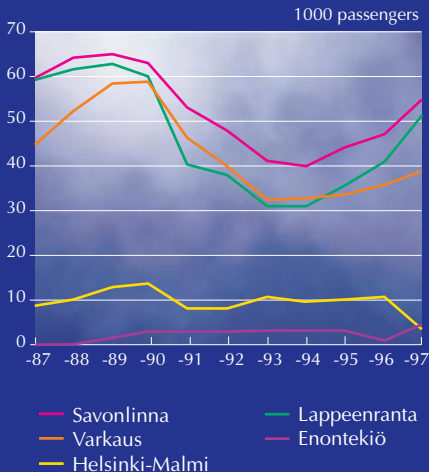
PASSENGER TRAFFIC  
AT AIRPORTS 1987-1997



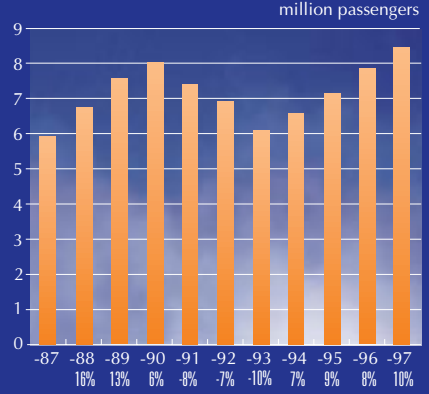
PASSENGER TRAFFIC  
AT AIRPORTS 1987-1997



PASSENGER TRAFFIC  
AT AIRPORTS 1987-1997



PASSENGER TRAFFIC  
AT HELSINKI-VANTAA AIRPORT 1987-1997





The VIP terminal was built for and funded by the CAA at a total cost of about FIM 17.5 million.

### **Renovation at Kuopio and Kruunupyö airports**

Expansion and alteration work at Kuopio airport passenger terminal was completed in December 1997 and it went into service in February 1998. Kuopio airport is among the top six in the country in terms of passenger volumes, handling almost 250,000 people in the year under review.

The renovation added an extra 1,400 sq. metres of space. The new arrivals hall is spacious and bright, with a centrally situated baggage carousel. Stairs and a lift lead up to the fully renovated restaurant on the first floor. An installation by Kuopio artist Kari Juutilainen, called "Talot-tolat," adorns the terminal roof and is sure to leave a lasting impression with arriving and departing travellers alike.

Passenger growth at Kruunupyö airport, which serves the towns of Kokkola and Pietarsaari, has been above average in the last couple of years: it rose by 20 % in 1966 and by 14 % in 1997 when 113,000 passengers passed through. Expansion and renovation work on the terminal was completed in summer 1997 and brought much needed space. There are now four check-in desks, separate passageways for arriving and departing passengers and a comfortable cafe. Prints by Bothnian artist Veikko Vionoja, from the CAA's own art collection, decorate the public area.

Both Kuopio and Kruunupyö terminal projects were completed by so-called three-pillar funding, which was adopted successfully for the Tampere-Pirkkala airport in 1996. The expansion costs at Kruunupyö amounted to FIM 10.5 million, divided between the CAA, the Ministry of Labour and the surrounding municipalities. The total cost of Kuopio



amounted to FIM 20 million, with funding from the CAA, the Labour Ministry, the town of Kuopio and the municipality of Siilinjärvi.

### **Extension of Kuusamo runway**

The extension to the Kuusamo runway by 550 metres, to 2,500 metres, was opened in October 1997 and allows direct flights from Kuusamo to continental Europe and direct international charter flights into Kuusamo. The airport intends to increase charter flights particularly around Christmas time. Passenger numbers increased by almost 12 % at the airport in 1997, to more than 80,000. Expansion work on the passenger terminal began in 1998.

### **New landmark for Oulu airport**

A new control tower was completed in July 1997 at Oulu and stands at the end of the road leading to the airport, forming a prominent landmark. The 28 metre high tower contains air navigation facilities, offices, pre-flight briefing and service areas, all designed to accommodate the future FATMI system. Once the air navigation equipment and systems have been installed the tower will be operational by spring 1998.

### **Office block goes up at Helsinki-Vantaa**

In 1997 the Civil Aviation Administration and Finnair formed a new property company which is building a 13 storey office block at Helsinki-Vantaa airport. Begun in September, the total cost of the project will be about FIM 90 million. It will stand beside the existing crew centre and will become the head office of the CAA when it opens at the end of 1998.





Ville Lintula, manager for Capi Lux Finland



"The airport is both a convenient and difficult place to do business. You do business quickly and have a wide variety of customers, so staff have to be professional and know how to serve customers from different cultures. Compared with street shops the airport shop has to be able to compete on product range, price and display.

"From the trader's point of view Helsinki-Vantaa has changed enormously in the past few years. They are really paying attention to passenger comfort and they are taking note of shopkeepers' wishes in the planning stage. For example we have been able to agree together on positioning and opening times for shops.

"The airport business community cooperate on marketing, for example, which Helsinki-Vantaa airport is also involved in through its own duty free shop. There is a good team spirit among the business people which of course is passed on to the customers and makes the airport more pleasant for them. And people do enjoy being at Helsinki-Vantaa - that has been proved in the surveys!"

## Apron and manoeuvring area services

### Third runway construction

Construction of a third runway at Helsinki-Vantaa began at the beginning of 1997, at an estimated cost of FIM 633 million and a completion date at the end of 2002. More than 70 subcontractors are involved, who together employ the country's entire earthworking industry.

Work was proceeding on schedule in 1997, with three of the civil engineering phases being completed and two others - temporary relocation of Katriinantie and the removal of the Mottisuo peat bog - begun.

The third Helsinki-Vantaa runway, vitally important for rapidly growing air traffic, is being built parallel to the present main runway and will be 3,000 metres long and 60 metres wide. Two taxi ways will connect the new runway with the main one, and deciling areas will be laid out at the ends of both. The surface area of the new project and the amount of earth to be shifted is of the same order as for the Lahti motorway project.

### Runway projects, east and west

Environmental permits have been received for both Vaasa and Lappeenranta runway extensions. Both runways will be lengthened from 2,000 metres to 2,500. Work is already under way and will be com-

pleted by autumn 1998. The longer runways will improve winter flying conditions and allow for direct international charter and cargo flights.

### New instructions for airports

In spring 1997 the Flight Safety Authority published its new AGA aviation regulations for airport operators. The regulations are based on international norms and recommendations for design and operation of airports. The first regulations were adopted in April and May 1997, the final ones coming into force by the end of 1988.

The aviation regulations include instructions for airport area design, winter maintenance, earthworks, illumination and traffic management. On the basis of these regulations the CAA lays down even more detailed instructions for airports. Winter maintenance rules were updated in autumn 1997. The new aviation regulations clarify the division of responsibility by which the aviation authority, that is, the air safety administration, is responsible for issuing the regulations while the operator of the aviation location takes care of the safety of its services.

### Airport quality control

The new AGA rules for airports also include the re-



quirement for an internal monitoring system. Development work on an anomaly and observation reporting system for airports began in 1997 and the system was adopted experimentally at Helsinki-Vantaa, Tampere-Pirkkala, Oulu and Kruunupyy airports in March 1998.

The system broadly incorporates the same features as the existing PHI system used by the air navigation services. As adapted for airports, it covers maintenance, electricity supply, fire and rescue operations, apron services and operational maintenance and rescue equipment. The aim of the system is to provide relevant information on all airport related anomalies, observations and areas needing improvement which have a direct or indirect bearing on air traffic safety, punctuality or fluency.

### **Proposed environmental programme**

An environmental affairs committee set up by the director general completed its report in June 1997, which included a proposal for the CAA's own environmental programme. The committee sees the need for the creation of a special environmental system that can continuously assess questions of responsibility and modes of operation. The committee's proposal forms the basis of a broader debate on environmental policy going on within the Civil Aviation Administration.

### **Natura 2000**

In June the CAA issued a statement concerning the Environment Ministry's Suomen Natura 2000 scheme. The CAA stated that before taking any final decision, the Environment Ministry should carefully examine the possible effects of the Natura 2000 pro-

gramme on airports and air transport. Where environmental protection and air safety are in conflict the Environment Ministry should discuss the removal of such risks with the CAA.

The CAA has also assessed the effects of a forthcoming environmental protection Act on airport operations. The Act, which is still under preparation is scheduled to come into force in 1999.

### **Protecting the water**

The Civil Aviation Administration applied to the western Finnish water authority for permission to channel anti-slip and de-icing agents from Helsinki-Vantaa airport into the watercourse. The application includes a review of the present permit terms for the air traffic region and a new application to allow runoff from the third runway to flow into the ground waters.

Helsinki-Vantaa airport also improved its recovery of glycol-containing snow. The airport uses glycol as an aircraft antifreeze - it is very little used at other airports. The glycol-containing snow is collected off the apron and transported to a collecting point where the melt-water is led into the drainage system. Liquid glycol on the apron is sucked up by special vehicle and taken to a biological waste station or runs off with the rain water into the drains.

The CAA and the Lapland environmental centre are studying the effects of anti-slip chemicals used by airports on the water quality. The study examined nitrogen content in the water table at Rovaniemi, Kemi-Tornio and Ivalo airports, all of which are situated near local water uptake points.

Jyväskylä airport and the Central Finland environmental centre are studying the effects of the urea used in anti-skidding agents on the surface waters below the airport and are due to report on their findings at the beginning of 1998.

## Air navigation services

### FATMI agreement renewed

The CAA renewed its contract concerning the FATMI (Finnish Air Traffic Management Integration) system with a joint venture firm called Airsys ATM, consisting of its original supplier (Siemens Plessey) and the French Thomson-CSF company, in June 1997. The air traffic control system to be adopted by Finland will be the company's own Eurocat which is already in operation in many European countries.

FATMI, the programme for overhauling the air navigation system, was delayed because of problems with delivery of the basic software. The supplier has now largely completed the equipment and software implementation specifications for the basic system and the CAA will take delivery of the first phase by the end of 1998.

### Quality control and safety management

At the beginning of July the air navigation service - air traffic control and flight information units - adopted a new anomaly and observations reporting procedure to provide information on operational irregularities and areas requiring improvement, to assist in decision making and planning. A rapid analysis procedure to provide information for quicker and more effective

action in cases of more serious malfunctions was adopted in December.

The air navigation service began systematic advanced training in autumn 1997 and also began constructing a high quality flight information system in accordance with ICAO demands.

### Better service with the new AIS unit

The CAA's AIS (Aeronautical Information Services) obtains, arranges and publishes according to ICAO regulations and recommendations, essential information for air traffic planning and operations. Users of this service are airports and their air navigation officers, as well as aircraft pilots and various aviation organizations.

The AIS service was enhanced at the beginning of 1997 with the foundation of a new aviation information unit for the air navigation department. The purpose of the reform was, among other things, to meet international quality requirements for the AIS. Besides providing aviation information, the unit takes care of aviation charts and flight procedures, undertakes flight obstacle analyses and maintains a register of flight obstacles.

The unit's first task was to publish a new AIP aviation handbook containing basic, long-term informa-





tion on flying in Finland. In addition, the AIS published more than 100,000 aviation bulletins during the year and more than 20,000 temporary notices warning, for example, of equipment malfunctions, airspace restrictions or runway conditions at the airports.

The next organizational change will take place in May 1998 when the international NOTAM office, which has functioned under Helsinki-Vantaa airport will switch to head office under the aviation information unit.

### **Monitoring aircraft noise**

Noise surveys were carried out in 1997 at Tampere-Pirkkala and Jyväskylä airports. The surveys were the result of cooperation between the CAA, the Air Force and surrounding towns and communities. It is the aim of the the CAA to undertake noise surveys at all the major airports as part of its environmental system.

Helsinki-Vantaa airport has adopted an aircraft noise and flight path monitoring system called GEMS, the only one of its kind in Finland, which collects data on flight paths and engine noise in residential areas close to the airport. First reports will be available in early 1998 and will be used to help draw up a noise prevention plan for the airport, among other things.

### **Emissions**

In 1997 the CAA and Kuopio university began a joint project to ascertain what kind of research had been done around the world into the effects of aviation on the atmosphere. When the work is completed in 1998 it will provide accurate and practical information on existing research results.

Aviation emissions in Finland were calculated by a procedure developed by the Civil Aviation Administration on the basis of flight statistics for 1996. The

results will be used in the Ministry of Transport LIPAS-TO programme, which collates information on energy consumption and emissions in various transport sectors within Finland. The data is maintained by the government technical research institute, VTT, and is available on the VTT Internet site.

### **Record year for the Air Navigation college**

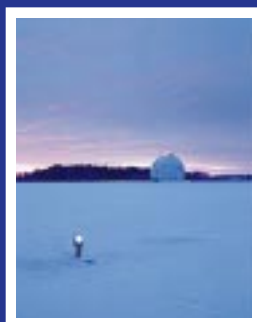
The CAA air navigation college curriculum comprised a total of 123 training weeks and more than 300 trainees - more than ever before. There were three basic courses in various phases of air traffic control during the year, attended by 66 students. Two flight information courses were organized in parallel to these. A total of 160 trainees took part in radar courses and process and radar air traffic control revision courses as part of the further training for air traffic controllers. Occupational trainers were also taught at the college and one training and project planning course was held. Eight Lithuanian air traffic controllers took part in a radar training course at the behest of the Eurocontrol system.

There was a record number of applicants (700) for the air traffic controllers' basic course in spring 1997, because for the first time in history applicants were not required to have a private pilot's licence. The requirement was dropped because it did not conform to international practice. From now on flight related training at the college will be organized in cooperation with Finnair's college of aviation.

The air navigation college constantly strives to improve and develop its training so as to correspond to the present and future needs of the airports. International developments in air navigation are watched closely, for example by participation in Eurocontrol's EATCHIP committees and by working with corresponding colleges from other countries.



Heikki Lytinen, Commander of the Karelia Air Command



“It’s our air command’s task to patrol and guard the airspace over eastern Finland. Air surveillance radar constantly provides us with a real-time aerial situation report of the area and we are ready to take off on a surveillance and identification flight at any time of day or night. Our duties place demands on Kuopio airport because air traffic control, flight information and maintenance have to operate 24 hours a day.

“We use the flight navigation services daily for our training and practice flights. Air Force and CAA air traffic controllers work together and share some of the air navigation equipment. We both use the runway but the airport looks after its maintenance.

“Cooperation between civil and military aviation in a small country like Finland is natural and sensible - after all, we share the same ideas on equipment and air safety standards. Workable personal relationships are also necessary at the airports in joint use - they help lubricate the machinery.”

## International cooperation

### ECAC

#### Air navigation strategy

Transport ministers of the member countries of ECAC, the European Civil Aviation Conference, approved the INSTRAT strategy on air navigation (the ECAC Institutional Strategy for Air Traffic Management in Europe) in February 1997. The strategy is designed to promote the development of air navigation among member countries of Eurocontrol and ECAC.

ECAC's harmonization and integration programme for air navigation routes, EATCHIP, and the corresponding programme for improving air traffic services at airports, APATSI, were combined to become an even more established sector of Eurocontrol's work. Under the so called gate-to-gate concept, a flight will be viewed as an all-inclusive event, from airport departure gate to arrival gate. The general Eurocontrol agreement was renewed in order to sup-

port the organization's increasing operations and decision making processes.

Discussion is still going on concerning European Union membership and participation in Eurocontrol operations.

#### Baggage security inspections

ECAC countries decided to initiate 100 per cent security checks on cargo hold baggage on international flights by 2002. Finland will be capable of such checks by that time.

### ICAO

ICAO, the International Civil Aviation Organization, published its strategic operational plan in May. The primary aim of the plan is to ensure worldwide aviation safety. In practice this work will be undertaken under the ICAO Safety Oversight Programme.



## EU

### Airport charges

Under a proposed EU Commission directive, the fees paid by airlines to airports should be made consistent. Such charges should more closely reflect the costs of the services that airports provide than they do now, as well as being fair and easy to scrutinize.

The proposal contains certain problem areas for countries like Finland where there is one large and many small and infrequently used airports. The principle of making each airport responsible for its own expenditure and profit would lead to an unreasonable increase in their charges. On the other hand, the small airports in Finland are usually only feeder stations for a single airport.

The proposed directive encompasses the principle of allowing small airports to be financed out of the commercial profits of the large ones. Finland and some other countries have put forward the view that it should also be possible to regard airports as a network which can be developed as a single entity.

### Negotiations with Eastern Europe and the USA

Under its mandate, the European Union has opened negotiations on air traffic and market entry agreements with certain central and eastern European countries, some of which are hoping to join the EU. The air safety situation in these countries is being assessed in conjunction with these negotiations. Apart from an improvement in the air safety situation the degree of market liberalization will depend on how fast these countries harmonize their aviation regulations with those of the EU.

The Union has discussed common aviation areas with the USA. The Commission has not yet been able to negotiate traffic rights, pricing or capacity with the superpower because the majority of EU countries are unwilling to allow it the extra mandate required.

### Royalties to Russia for overflying Siberia

In December the EU Council accepted a decision criticising Russia's practice of levying royalties. The intention is to secure agreement with Russia on the gradual removal of these charges because they contravene the general international civil aviation agreement.

## Bilateral air traffic issues

### Finland and Russia

The primary issue in aviation relations between Finland and Russia in 1997 was the insufficient number of flights between Helsinki and St. Petersburg and Helsinki and Moscow. The need for extra flights was discussed at many levels - even between the two countries' presidents in March - but no practical solution was achieved. Finnair and Aeroflot airlines are now continuing the negotiations.

In October 1997, Finnair and Aeroflot finally reached agreement on the commercial terms for using the Transpolar route. Finnair is now able to choose either the Transpolar route or the traditional Trans-Siberian passage for its Japan flights according to prevailing conditions.

The Civil Aviation Administration and Russian aviation officials agreed to open the Transpolar route back in 1995, which shortens both the distance and the time it takes to fly between Western Europe and Japan. At the end of 1997, SAS, Swissair, Lufthansa, KLM, Air France and ANA were using this route besides Finnair.

### New aviation contracts

In 1997, Finland negotiated aviation contracts with Israel, Indonesia and Malaysia. Finnish and Singapore aviation officials agreed that Finnair be allowed to fly to Singapore three times a week.



Pekka Järvi, fleet captain, Finnair



"I fly almost a hundred percent with turbo-prop aircraft in Finland, now and again to Stockholm, Tallinn and Petroskoi. For flight preparations I pick up my route and other information for the flight from the CAA's AIS information service. Data on ice and snow conditions at airports are essential in winter.

"Airport maintenance works well even in severe blizzards. If a problem appears - if for instance, I notice on landing that the coefficient of friction I have been given did not tell the whole truth - I make a report. A few years ago we revived the old cooperation model that existed between Finnair and the CAA, in which we went through the problem areas at regular intervals. These meetings have been useful particularly for winter operations. For example, Finnair handles the aircraft de-icing itself, so coordination with the CAA is important.

"The standard of air navigation in Finland is high, though peak periods at Helsinki-Vantaa sometimes cause problems. From the pilot's point of view the third runway is good news!"

## Administration

### The new pay system

A new pay system based on job difficulty and personal performance began to be applied from the beginning of April, with the exception of controllers. Altogether almost 1,400 people are included in the system.

It is the policy of the CAA to pay fair wages that offer an incentive. Assessment of personal work performance is a fundamental part of the wages scheme, and the functioning of the scheme requires productive and interactive dialogue between employee and supervisor at least once a year, at which time personal job performance is also evaluated. Supervisors have mastered the assessment criteria and have been trained to conduct these development dialogue sessions. The experience of this pay system has been positive.

### Data system upgraded

A data management strategy was approved for the CAA in 1997 and several extensive information systems projects initiated. Internet connexion was instituted and the CAA opened its own home pages in June at the web address of [www.ilmailulaitos.com](http://www.ilmailulaitos.com).

The office system will be renewed by the end of 1998, in order to improve the CAA's internal communications, make information more accessible to the users and to promote contacts with external interest groups. Overhaul will include construction of an inter-

nal data system for the CAA with the aid of the Intranet.

Information on all the equipment and systems in service with the CAA was compiled under the Year 2000 project, and a timetable was drawn up for the changes necessary for the turn of the century. Special emphasis will be paid in 1998 on getting the air navigation systems in shape for year 2000. A new data system for wages management was chosen and will come into full service in autumn 1998.

### Successful "Sunshine" and "Helm" development projects

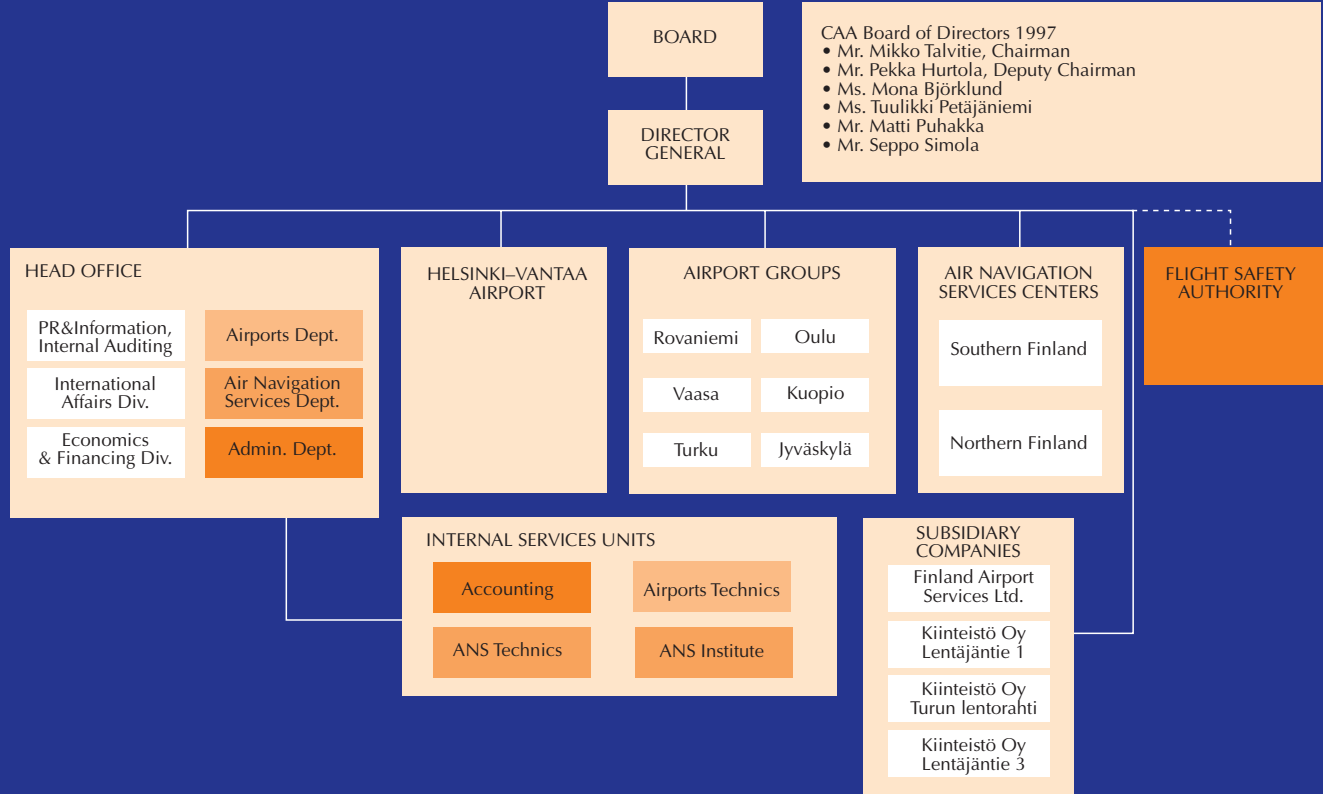
The CAA's internal cooperation development programme for the airports expanded during the review year, in which they selected their own areas and targets for development. Projects ranged from improvement of cooperation to tangible ventures. All the airports made a final report on their projects, disclosing the phases and results of their projects.

Four well-implemented development projects were awarded prizes: Vaasa airport's "Helm" project aimed at improving initiative; Jyväskylä's "Ability" and "Sunshine" projects proposed common ground rules and methods for making better use of professional talents; Mariehamn's "Cooperation" project gave rise to a new internal information system at the airport, and the Southern Finland air navigation services centre's "Pulmu" completed the transfer to radar based working.

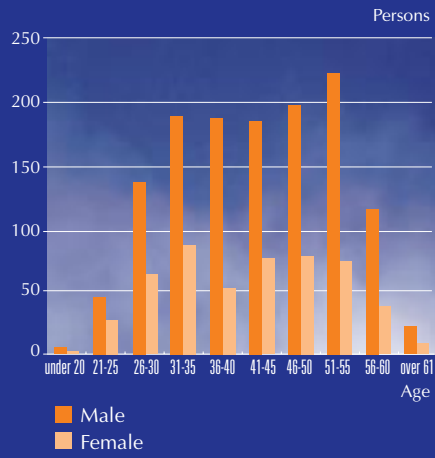




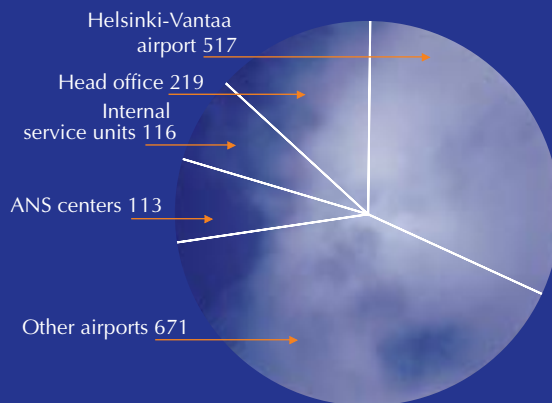
# CAA FINLAND GROUP ORGANIZATION



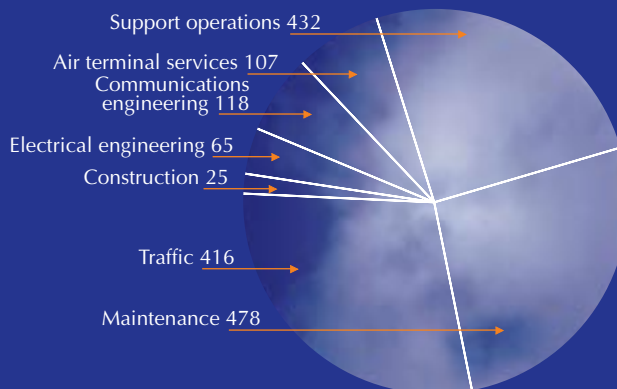
### PERSONNEL: AGE AND SEX DISTRIBUTION 1997



### OPERATIONAL PERSONNEL 1997



### OPERATIONAL PERSONNEL 1997



## Staff

There were an average of 1,723 people (1996: 1647) working for the CAA Group during the accounting period. The number of staff employed by the Group at the end of 1997 was 1,734 (1996: 1,671).

The average number of staff at the CAA for the whole year was 1,660 (1996: 1604) of which 1,637 (1,584) were operational staff and 23 (20) were employed on investment projects.

There were 1,670 people (1,629) working at the CAA at the end of 1997, which was 41 more than the year before. There were 1,641 (1,613) operational staff and 29 (16) hired to carry out investment projects. Of the total, 65 persons were on official leave at the end of the year.

The number of staff at the airports amounted to 1,212 (1,188), there were 119 (113) people working in the air navigation services and 118 (121) were working in the internal service units, 60 (56) in the flight safety authority, and 161 (151) at head office and other units.

The number of permanent staff at the CAA was 1,515 (1,499) and 155 (130) were on contract.

The average age of CAA personnel at the end of 1997 was 42.2, which was 1.3 years younger than the year before. The proportion of women in this traditionally male profession of aviation rose slightly from the year before to 28.2 %. The largest proportion of staff were working in maintenance (29%), followed by those in support operations (26%) and air navigation (25%). Support operations include airport administration, and those in head office planning and development work.

Total wages and salaries paid to CAA Group staff amounted to FIM 294 million. Salaries and fringe benefits paid to the Group's Company Board and Managing Director amounted to FIM 1,088,000. Wages and salaries paid to CAA personnel proper amounted to FIM 288 million. Salaries and fringe benefits paid to the CAA Board and Managing Director totalled FIM 753,000.

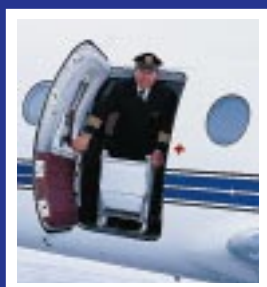
### OPERATIONAL PERSONNEL AT AIRPORTS AND AIR NAVIGATION SERVICES CENTERS 1997

Helsinki-Vantaa	517
Oulu	62
Kuopio	61
Tampere-Pirkkala	59
Rovaniemi	55
Turku	53
Jyväskylä	50
Vaasa	39
Pori	32
Joensuu	28
Kruunupyy	25
Kemi-Tornio	23
Mariehamn	23
Kajaani	22
Helsinki-Malmi	20
Ivalo	20
Lappeenranta	19
Kauhava	17
Savonlinna	16
Kuusamo	11
Kittilä	10
Halli	9
Utti	7
Varkaus	6
Enontekiö	4
South Finland ANS (Tampere)	101
North Finland ANS (Rovaniemi)	17



Taisto Kurhela, captain, Euro-Flight Air Ambulance

COMMERCIAL FLYING COMPANY



“The majority of our ambulance flights take place over former Soviet Union territory and back into Finland. Our clients include the multinational oil companies working in the region, our service being included in their employees’ health benefit schemes. The air ambulance is a specially equipped plane that allows us to transport a patient to hospital under intensive care and under the supervision of a physician and a nurse. We are on call 24 hours a day every day of the year, and ready to go within two hours of an alert.

“Our service would not be perfect without cooperation with Helsinki-Vantaa and the air navigation services at other airports. Our ambulance flights are nearly always given priority over other planes for takeoff and landing, which saves a great deal of time. This is especially important when we are transporting a seriously ill patient or if it is an organ transplant flight, when speed is decisive.”

## Financial result for 1997

### Air Transport trends

The favourable trend begun during 1995 continued. A record number of 9.1 million flights were made in Finland in 1997, representing a growth of 10 per cent over 1996. The improvement in the Finnish economy and the revival of individual economic fortunes had a positive effect, particularly on the number of passengers making domestic and international flights. The number of departing, arriving and transit passengers on international flights reached 6.4 million in all, which was 8.5 per cent more than the previous year. The number of domestic passengers increased by 13.6 per cent to 2.6 million, just about exceeding for the first time the previous record set in 1990.

The number of commercial aviation landings in 1997 increased by 12.6 per cent, which was significantly more than expected.

The number of private and military aviation operations continued the decline which began in 1990, the reduction this time being 8.3 per cent from the 1996 figure. The number of operations has dwindled by 44 per cent since 1990.

The total number of flights over Finnish territory increased by 29.0 %. The Transpolar route, the most direct route from Europe to the Far East, increased in popularity from 104 flights by two airlines in January to 376 flights by six airlines in December.

Key figures for air transport trends in Finland in 1997:

Passengers on international flights	8,5%
Passengers on domestic flights	13,6%
Landings, commercial flights	12,6%
Landings, general and military	-8,3%
Overflights	29,0%
Gateway passengers	8,6%

### Pricing Policy

It is the goal of the CAA to reduce transport charges realistically. When the pricing decisions for 1997 were made, inflation expectations were still extremely low, so that only very minor price rises were necessary to achieve the price objectives.

The pricing strategy of previous years was continued and the price structure altered so as to slightly reduce the difference between domestic and international transport charges, while airport navigation service charges were increased to bring them more closely in line with costs.



## Income distribution of the CAA

	1997		1996	
	Million FIM		Million FIM	
Turnover and other business activity income	976,7		842,6	
Production expenses of the services	-278,2		-204,7	
Financing income	18,2		17,1	
<b>Amount to be distributed</b>	<b>716,7</b>	<b>100%</b>	<b>655,0</b>	<b>100%</b>
Preliminary taxation	100,2		96,1	
Social security fee	11,7		10,9	
Unemployment insurance fee	6,5		5,3	
Real estate tax	4,4		4,1	
Other public expenditures	1,6		1,9	
<b>1. Public expenditure</b>	<b>124,4</b>	<b>17%</b>	<b>118,3</b>	<b>18%</b>
Wages	291,2		276,7	
Preliminary taxation	-100,2		-96,1	
Contribution to pension fund	54,9		52,5	
Social security and unemployment insurance fees	(-18,2)		(-16,2)	
Other personnel costs	9,8		4,3	
Education	7,5		7,4	
<b>2. Personnel</b>	<b>263,2</b>	<b>37%</b>	<b>244,8</b>	<b>37%</b>
Financial costs	15,2		16,9	
<b>3. Financiers</b>	<b>15,2</b>	<b>2%</b>	<b>16,9</b>	<b>3%</b>
Fixed assets	241,7		231,2	
Changes in reserves	-1,1		-1,1	
Undivided profit	73,3		43,8	
<b>4. Infrastructure development</b>	<b>313,8</b>	<b>44%</b>	<b>273,9</b>	<b>42%</b>
<b>Amount to be distributed in relation to the number of movements and passengers</b>				
Number of movements	331 418		324 893	
Number of passengers	9 066 566		8 245 462	
<b>Amount to be distributed (FIM)</b>				
per movement	2 163		2 013	
per passenger	79		79	

The main aviation charges were revised as follows:

Type of fee	Domestic Traffic	International Traffic
Passenger fee	0 %	0 %
Landing charge	1 %	0 %
Terminal navigation charge	9 %	9 %
Navigation charge	0 %	-5 %

The effects of the revised charges on the most common types of aircraft were 1.0 % for domestic traffic and 0.9% for international traffic. The present price levels for Finnish airports and air navigation services are average for Europe and competitive in Scandinavian terms.

When the Transpolar route between Europe and the Far East opened to limited traffic in August 1996 the CAA lowered its navigation charges for overflying aircraft in order to encourage more airlines to put pressure on Russia to provide more licences for the route. However, the tariff changes were not seen to have a significant effect on traffic volume, although one new carrier did enter the route at the end of that year. The CAA once again lowered its navigation charges for overflights at the beginning of the winter season in November 1997. The reduction almost doubled the usage of the Transpolar route compared with the previous month.

## Operational result

### Financial result of the CAA Group

In addition to the CAA proper, the CAA Group includes the following subsidiaries.: Kiinteistösakeyhtiö Lentäjantie 1, Finland Airport Services Ltd. (Suomen Lentoasemalvelut Oy), Kiinteistö Oy Turun Lentorahti and Kiinteistösakeyhtiö Lentäjantie 3. Of these, Kiinteistösakeyhtiö Turun Lentorahti made its first closing of accounts at the end of 1997. Kiinteistösakeyhtiö Lentäjantie 3 was founded on 19. June 1997 and its figures are contained in the Group financial statement.

The book result for the Group was FIM 72.9 million in profit. Group turnover reached FIM 971.0 million and profit on other operations was FIM 5.3 million. Group operating costs were FIM 657.9 million. Investments for 1997 totalled 270.3 million. Long term loans for the group stood at FIM 376.4 million at the end of the year.

### Financial Result for the CAA

The Council of State set a profit target for the CAA for 1997 at FIM 42 million. The operational result for the CAA for 1997 was FIM 73.2 million.

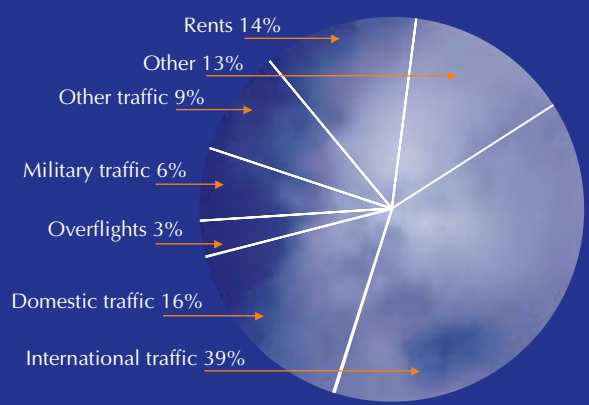
This better-than-expected financial outcome was the result of a far greater improvement in air traffic than predicted. Commercial earnings also improved, which in turn resulted from increased traffic. The new commercial services facilities were also at the disposal of the customers throughout the year.

Turnover for the CAA was FIM 971.4 million and income from other business activities was FIM 5.3 million. Turnover went up by 15.6% from the previous year. Most of the growth in turnover stemmed from the fact that air traffic increased more than expected. Earnings from CAA commercial services also increased strongly, as a result of the increase in operations made possible by the central terminal at Helsinki-Vantaa airport.

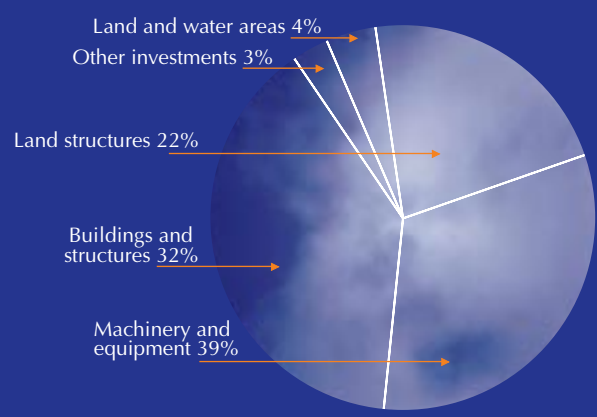
Operating expenses incurred by the CAA amounted to FIM 665.8 million. Operating costs increased by 17.3% over those of 1996. The rise in traffic also showed as an increase in costs. The CAA also directed its efforts towards developing its systems and other resources during 1997. The growth in expenditure resulted in part also from an increase in running re-



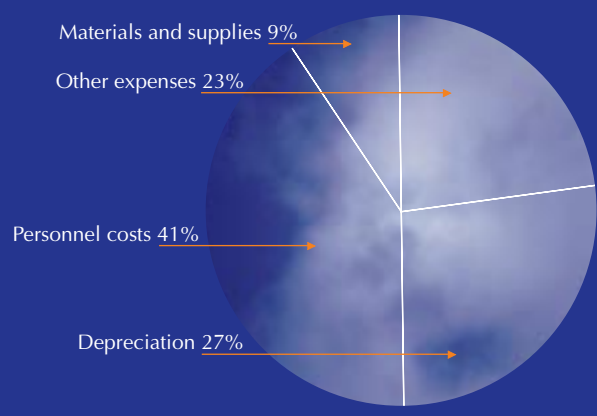
### INCOME 1997



### INVESTMENTS 1997



### EXPENSES 1997



pairs to buildings, machinery and equipment. The biggest increase in costs resulted from the activities of the Helsinki-Vantaa airport duty free shop. For the first time, the shop was open all year round. The increase over budgeted costs resulted from the already mentioned development projects and repair works.

### Investments

Parliament set the maximum limit for investment by the CAA in 1997 at FIM 450 million. Actual investment amounted to FIM 251.7 million.

Investment on fixed assets was divided as follows:

Land and water areas	FIM	9.8 million
Buildings and structures	FIM	79.9 million
Machinery and equipment	FIM	98.8 million
Ground facilities	FIM	55.6 million
Stocks and shares	FIM	5.7 million
Intangible rights	FIM	1.8 million

During 1997 the terminal expansions at Kruunupy and Kuopio were completed, as was the control tower at Oulu airport. The VIP terminal at Helsinki-Vantaa was opened and building began on runway III

and the second phase of the main terminal building. Otherwise, investment spending went, in the main, on normal replacements for buildings and equipment.

### Financing

The government budget granted the CAA the right to take out a long term loan of FIM 250 million. In 1997 the CAA did not resort to any new borrowing at all, because income was better than budgeted and the investment programme was about FIM 100 million slower than budgeted.

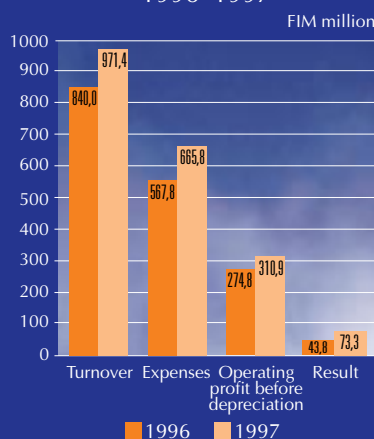
Net financial items for the CAA were positive by FIM 2.9 million. The result for financial activities was better than budgeted mainly because for various reasons the CAA's liquidity was better than planned throughout the year under review.

At the end of the year, the CAA's long term loans amounted to FIM 250.9 million.

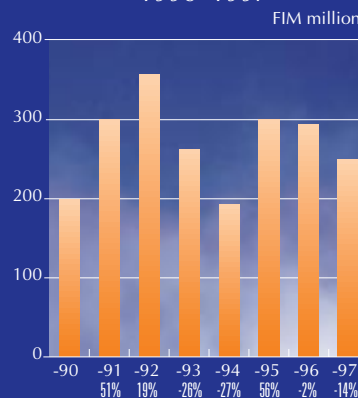
### Productivity

Owing to the increase in air traffic, CAA productivity was 3 per cent higher than in 1996. The average number of personnel working years for the year was 56.6, 3.5 % higher than the year before. Labour productivity increased more than total productivity.

COMPARISON OF THE RESULT  
1996-1997

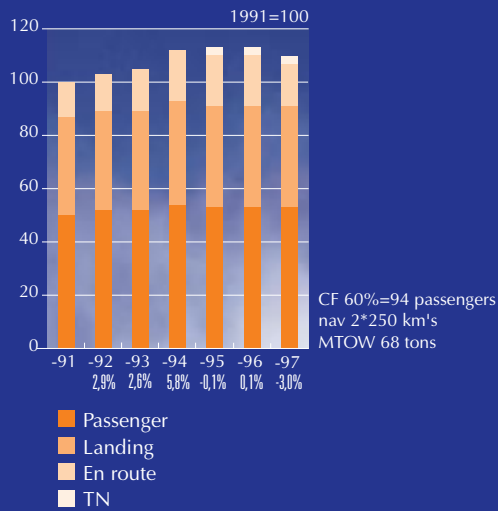


INVESTMENTS  
1990-1997



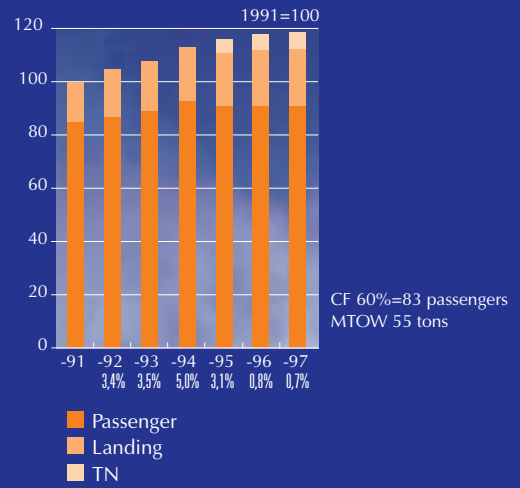
### AIR TRAFFIC CHARGES IN INTERNATIONAL TRAFFIC 1991-1997

MD-82



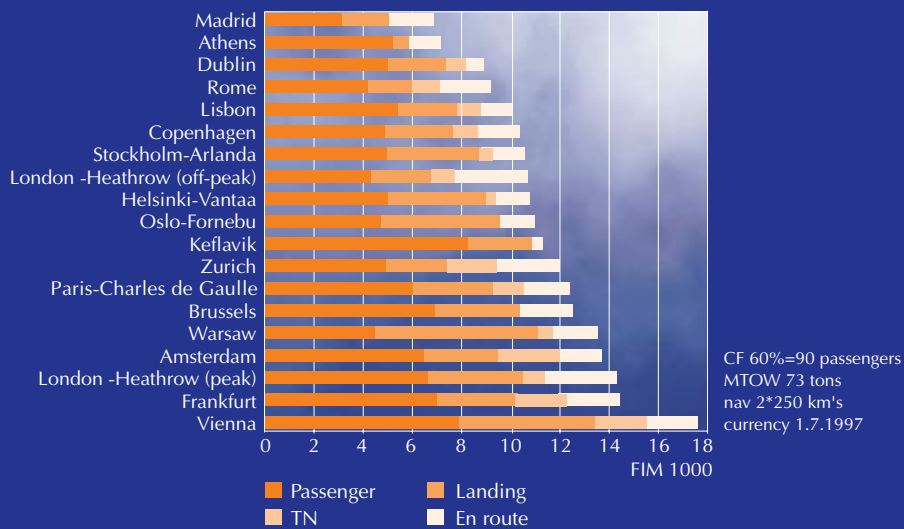
### AIR TRAFFIC CHARGES IN DOMESTIC TRAFFIC 1991-1997

DC-9



### AIR TRAFFIC CHARGES 1997

MD-83



# Income statements

1 . 1 . 1 9 9 6 – 3 1 . 1 2 . 1 9 9 7

	<b>GROUP</b>		<b>CAA</b>	
	1997 FIM thousand	1996 FIM thousand	1997 FIM thousand	1996 FIM thousand
<b>TURNOVER</b>	<b>971 016</b>	<b>840 116</b>	<b>971 353</b>	<b>840 045</b>
Other revenue from business activity	5 308	2 509	5 308	2 509
<b>EXPENSES</b>				
Materials and supplies				
Purchases during financial year	79 592	45 144	79 801	45 144
Increase (-)/ Decrease (+) in inventories	-195	-1 886	-195	-1 886
Services bought from outside companies	145 510	123 981	153 595	130 106
Personnel costs	384 006	358 074	376 302	352 115
Rents	7 533	4 596	16 005	13 710
Other costs	41 457	29 779	40 278	28 597
<b>TOTAL EXPENSES</b>	<b>657 904</b>	<b>559 688</b>	<b>665 785</b>	<b>567 786</b>
<b>OPERATING PROFIT BEFORE DEPRECIATION</b>	<b>318 420</b>	<b>282 938</b>	<b>310 877</b>	<b>274 768</b>
<b>PLANNED DEPRECIATION</b>				
Buildings and structures	61 228	75 833	57 810	72 697
Machinery and equipment	116 545	88 999	114 430	86 807
Land structures	67 652	66 054	67 611	66 015
Intangible rights	1 596	4 018	1 596	4 018
Other long-term outgoings	214	1 648	214	1 648
<b>TOTAL DEPRECIATION</b>	<b>247 235</b>	<b>236 552</b>	<b>241 661</b>	<b>231 185</b>
<b>OPERATING PROFIT</b>	<b>71 186</b>	<b>46 386</b>	<b>69 216</b>	<b>43 583</b>
<b>FINANCING INCOME AND EXPENSES</b>				
Dividend income			32	
Interest income	13 361	13 562	12 720	12 978
Other financial income	7 870	6 632	5 419	4 151
Interest expenses	-17 571	-20 919	-12 961	-14 239
Other financing costs	-2 282	-2 640	-2 280	-2 639
<b>TOTAL FINANCING INCOME AND COSTS</b>	<b>1 378</b>	<b>-3 365</b>	<b>2 929</b>	<b>252</b>
<b>PROFIT BEFORE PROVISIONS AND TAXES</b>	<b>72 564</b>	<b>43 022</b>	<b>72 145</b>	<b>43 835</b>
Direct taxes	-80	-46		
Increase (-)/ decrease (+) in depreciation differential	-11 791		-11 700	
Increase (-)/ decrease (+) in optional reserves	12 827		12 827	
Minority share for the financial year	-585	-249		
<b>PROFIT FOR THE FINANCIAL YEAR</b>	<b>72 935</b>	<b>42 727</b>	<b>73 272</b>	<b>43 835</b>

# Balance sheet

1 . 1 . 1 9 9 6 – 3 1 . 1 2 . 1 9 9 7

	GROUP		CAA	
	1997 FIM thousand	1996 FIM thousand	1997 FIM thousand	1996 FIM thousand
<b>ASSETS</b>				
<b>FIXED ASSETS AND OTHER LONG TERM INVESTMENTS</b>				
Intangible assets				
Intangible rights	8 480	7 158	6 160	4 838
Other long term expenditure	424	638	424	638
	8 904	7 796	6 585	5 476
Tangible assets				
Land areas	221 229	211 799	221 229	211 799
Buildings and structures	1 201 652	1 224 174	1 082 186	1 101 364
Machinery and Equipment	395 217	391 805	387 665	382 979
Ground facilities	616 469	665 381	615 923	664 794
Advances and work in progress	214 912	150 166	206 717	150 201
	2 649 479	2 643 325	2 513 719	2 511 137
Securities and other long term investments				
Stocks and shares	898	815	34 080	28 360
<b>CURRENT AND FINANCIAL ASSETS</b>				
Current assets				
Finished products and goods	2 471	2 277	2 471	2 277
	2 471	2 277	2 471	2 277
Receivables				
Accounts receivable	74 987	67 670	75 851	68 159
Receivables carried forward	35 117	59 560	33 219	59 568
Other receivables	127	70	127	60
	110 231	127 300	109 197	127 787
Financial assets and other long term investments				
Other financial assets	378 500	320 059	368 500	310 059
Cash and money in bank account	15 736	6 365	1 022	251
	394 235	326 424	369 522	310 309
	<b>3 166 219</b>	<b>3 107 936</b>	<b>3 035 574</b>	<b>2 985 346</b>
<b>LIABILITIES</b>				
<b>OWN EQUITY</b>				
Restricted equity capital				
Basic equity	1 097 236	1 097 236	1 097 236	1 097 236
	1 097 236	1 097 236	1 097 236	1 097 236
Own non-restricted capital				
Other initial shareholders' equity	1 262 131	1 262 131	1 262 131	1 262 131
Profit/loss from previous financial years	130 605	92 878	141 744	102 909
Profit/loss for financial year	72 935	42 727	73 272	43 835
	1 465 670	1 397 736	1 477 147	1 408 875
<b>MINORITY SHARE</b>				
	<b>8 250</b>	<b>6 299</b>		
<b>PROVISIONS</b>				
Accumulated depreciation	11 791		11 700	
Optional reserves				
Transitional reserve		12 827		12 827
	11 791	12 827	11 700	12 827
<b>CURRENT LIABILITIES</b>				
Long term				
Loans from the State		13 246		13 246
Loans from financial institutions	375 500	405 500	250 000	280 000
Membership fees	882		882	
	376 382	418 746	250 882	293 246
Short term				
Loans from the State		1 892		1 892
Loans from financial institutions	35 000	10 000	30 000	10 000
Advances received	7 082	6 463	7 082	6 463
Bills payable	71 951	61 177	70 797	61 034
Accrued expenses	73 836	73 725	72 098	72 375
Other short term debts	19 021	21 835	18 632	21 398
	206 890	175 093	198 609	173 162
	<b>3 166 219</b>	<b>3 107 936</b>	<b>3 035 574</b>	<b>2 985 346</b>

# Financing statement

1 . 1 . 1 9 9 6 – 3 1 . 1 2 . 1 9 9 7

	GROUP		CAA	
	1997	1996	1997	1996
BUSINESS ACTIVITIES	FIM thousand	FIM thousand	FIM thousand	FIM thousand
<b>Income financing</b>				
Operating profit	318 420	282 939	310 877	274 768
Incidental items	1 377	-3 364	2 929	253
Taxes	-80	-46		
<b>Total</b>	<b>319 717</b>	<b>279 529</b>	<b>313 806</b>	<b>275 021</b>
<b>Change in working capital</b>				
Short term receivables, increase (-)/ decrease (+)	17 884	-18 577	18 396	-20 149
Interest free short term debt, (increase (+)/ decrease (-))	8 969	34 431	8 221	35 500
<b>Total</b>	<b>26 853</b>	<b>15 854</b>	<b>26 617</b>	<b>15 351</b>
<b>CASH FLOW IN BUSINESS OPERATIONS</b>	<b>346 570</b>	<b>295 383</b>	<b>340 423</b>	<b>290 372</b>
<b>INVESTMENTS</b>				
Land and water areas	9 830	565	9 830	565
Buildings and structures	103 636	134 487	79 935	119 449
Machinery and equipment	99 825	138 544	98 828	138 434
Land structures	55 555	25 980	55 555	25 980
Stocks and shares	83	306	5 720	5 706
Intangible rights	1 386	2 150	1 845	2 150
Other long term expenditure		1 934		1 934
<b>Total</b>	<b>270 315</b>	<b>303 966</b>	<b>251 713</b>	<b>294 218</b>
<b>SALE OF FIXED ASSETS</b>	<b>646</b>	<b>381</b>	<b>640</b>	<b>381</b>
<b>CASH FLOW BEFORE FUNDING</b>	<b>76 901</b>	<b>-8 202</b>	<b>89 350</b>	<b>-3 465</b>
<b>FUNDING</b>				
Long term loans increase (+) / decrease (-)	-32 746	148 608	-43 246	138 108
Short term loans increase (+) / decrease (-)	26 890	-44 783	18 108	-44 783
Increase in share capital/basic capital	1 366	25 000		25 000
Dividend	-5 000		-5 000	
<b>Total</b>	<b>-9 490</b>	<b>128 825</b>	<b>-30 138</b>	<b>118 325</b>
<b>INCREASE (+) / DECREASE (-) IN LIQUID ASSETS</b>	<b>67 411</b>	<b>120 623</b>	<b>59 212</b>	<b>114 860</b>
<b>LIQUID ASSETS</b>				
Liquid assets 1.1.	326 825	206 201	310 310	195 450
Liquid assets 31.12.	394 236	326 825	369 522	310 310
<b>CHANGE IN LIQUID ASSETS</b>	<b>67 411</b>	<b>120 624</b>	<b>59 212</b>	<b>114 860</b>

# Notes on the financial statements

## 1. Consolidated financial statements

The financial statement for 1997 has been drawn up in accordance with the Decision of the Council of State of 16. December 1993 (1247/1993) concerning the accounting principles for state enterprises and organizations.

The CAA Group consists of the Civil Aviation Administration (a state enterprise) and the other companies within the group; i.e. Kiinteistö Oy Lentäjätie 1, Kiinteistö Oy Lentäjätie 3, Finland Airport Services Ltd. and Kiinteistö Oy Turun Lento-rahti. Kiinteistö Oy Lentäjätie 3 was founded in 1997 and its business operations have been noted in the Group financial statement for 1. July - 31. December 1997.

Separate financial statements concerning electricity grid and electricity sales, as required under the Electricity Market Act, have been included in the Notes to the Financial Statement.

For further information on companies within the Group, please see the section "CAA Group companies."

Internal transactions within the Group, 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 profit and shown as a separate item on the balance sheet.

2. Salaries and wages Performance based	GROUP		CAA	
	1997	1996	1997	1996
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
Salaries and remunerations for the Board				
of Directors and managing director	1 088	1 057	753	757
Other salaries	279 970	258 597	274 520	254 401
Bonuses		5 500		5 500
Holiday pay	13 961	12 947	13 849	12 855
Change in holiday pay provision	2 317	1 938	2 091	1 789
Fringe benefits	299	215	294	208
Total	297 634	280 254	291 507	275 510
<b>3. Social security payments</b>				
Pensions	55 845	53 343	54 845	52 549
Unemployment insurance payments	6 570	5 330	6 512	5 283
Staff costs related to bonuses		1 397		1 397
Other personnel costs	24 255	17 674	23 731	17 315
Total	86 670	77 745	85 088	76 544

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

Staff are covered by the state national pension scheme. Performance-based pension payments calculated according to the 1997 wage bill in compliance with the principle of full-coverage applied in insurance mathematics, are entered in full in the income statement. The State Treasury set the pension rate at 19.0% (1996, 19.4%).

The CAA group employed an average of 1,723 people during the financial year (1996; 1,647), while the CAA employed an average of 1,660 (1996;1,604), of whom 1,637 (1996;1,584) were in operational jobs and 12 (1996;20) were employed on investment projects.

At the end of the financial year there were 1,734 persons employed by the CAA Group (1996;1,671). The number of permanent staff at the CAA at the end of the financial year was 1,515 (1996;1,499) and 155 were on fixed-term contracts (1996;130).

# Notes on the financial statements

## 4. Tangible and intangible assets and depreciations

Planned depreciation has been calculated according to a uniform principle for the Group using the straight line or reducing-balance method of depreciation for the economic life of fixed assets.

Economic life and depreciation percentages were:

	Year	Depreciation %	
Intangible assets			
Intangible rights	5	20%	Straight line
Other long-term expenditure	5	20%	Straight line
Tangible assets			
Buildings and structures	10 - 40	2,5 - 5 %	Straight line
Machinery and equipment	5 - 20	6,7 - 15 %	Reducing balance
Earth structures	10 - 40	2,5 - 10 %	Straight line

### Machinery and equipment

The economic life of other machinery and other vehicles has been reduced from 10 years to 5. The change increases planned depreciations for 1997 by FIM 3.5 million. Similarly, the economic life of safety equipment and office machinery has been reduced from 10 years to 5, increasing planned depreciations by FIM 3.7 million. In addition, the change of economic life of the information transfer systems from 15 years to 10 increases depreciations by FIM 0.6 million.

### Investment work/projects in progress

The cost of implementing the new air navigation system between 1991 and 1996 has been entered as an extra depreciation for the financial year of FIM 21 million, to be on the safe side, to cover designers' and planners' pay and travel expenses.

Concerning phase 2 of the construction of the central terminal at Helsinki-Vantaa airport, the residual value and demolition costs of old buildings have been entered as a one-time write-off (FIM 4.1 million) under planned depreciations.

	GROUP		CAA	
	1997 FIM thousand	1996 FIM thousand	1997 FIM thousand	1996 FIM thousand
<b>Intangible rights</b>				
Acquisition cost Jan 1.	18 510	17 013	16 190	14 693
+ Increase during financial year	2 919	2 545	2 919	2 545
- Decrease during financial year		-1 048		-1 048
Acquisition cost Dec 31.	21 429	18 510	19 109	16 190
- Accrued planned depreciation 31.12.	-12 949	-11 353	-12 949	-11 353
Book value Dec 31.	8 480	7 158	6 160	4 838
<b>Other long-term expenditure</b>				
Acquisition cost Jan 1.	5 775	5 502	5 775	5 502
+ Increase during financial year		1 731		1 731
- Decrease during financial year		-1 458		-1 458
Acquisition cost Dec 31.	5 775	5 775	5 775	5 775
- Accrued planned depreciation Dec 31.	-5 351	-5 137	-5 351	-5 137
Book value Dec 31.	424	638	424	638



# Notes on the financial statements

	GROUP		CAA	
	1997	1996	1997	1996
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
<b>Land and water areas</b>				
Acquisition cost Jan 1.	211 799	215 572	211 799	215 572
+ Increase during financial year	9 556	545	9 556	545
- Decrease during financial year	-126	-4 319	-126	-4 319
Acquisition cost Dec 31.	221 229	211 799	221 229	211 799
<b>Buildings and structures</b>				
Acquisition cost Jan 1.	1 488 274	1 199 625	1 357 706	1 084 095
+ Increase during financial year	38 668	295 209	38 631	280 171
- Decrease during financial year		-6 560		-6 560
Acquisition cost Dec 31.	1 526 943	1 488 274	1 396 338	1 357 706
- Accrued planned depreciation Dec 31.	-325 291	-264 101	-314 152	-256 342
Book value Dec 31.	1 201 652	1 224 174	1 082 186	1 101 364
Accrued difference between total and planned depreciations Dec 31.	11 700		11 700	
<b>Machinery and equipment</b>				
Acquisition cost Jan 1.	1 004 525	909 891	989 820	895 332
+ Increase during financial year	99 767	138 026	98 924	137 873
- Decrease during financial year	-6 620	-43 392	-6 538	-43 386
Acquisition cost Dec 31.	1 097 672	1 004 525	1 082 206	989 820
- Accrued planned depreciation Dec 31.	-702 455	-612 720	-694 541	-606 841
Book value Dec 31.	395 217	391 805	387 665	382 979
Accrued difference between total and planned depreciations Dec 31.	91			
<b>Land structures</b>				
Acquisition cost Jan 1.	1 094 410	1 066 954	1 093 724	1 066 268
+ Increase during financial year	17 271	27 456	17 271	27 456
- Decrease during financial year	-4 743		-4 743	
Acquisition cost Dec 31.	1 106 939	1 094 410	1 106 253	1 093 724
- Accrued planned depreciation Dec 31.	-490 469	-429 029	-490 330	-428 931
Book value Dec 31.	616 469	665 381	615 923	664 794
<b>Stocks and shares</b>				
Acquisition cost Jan 1.	815	110	28 360	22 654
+ Increase during financial year	82	706	5 720	5 706
- Decrease during financial year				
Acquisition cost Dec 31.	898	815	34 080	28 360
<b>TOTAL</b>				
Acquisition cost Jan 1.	3 824 109	3 414 666	3 703 376	3 304 117
+ Increase during financial year	168 264	466 219	173 021	456 029
- Decrease during financial year	-11 488	-56 776	-11 406	-56 770
Acquisition cost Dec 31.	3 980 885	3 824 109	3 864 990	3 703 376
- Accrued planned depreciation Dec 31.	-1 536 515	-1 322 339	-1 517 323	-1 308 604
Book value Dec 31.	2 444 370	2 501 770	2 347 668	2 394 772
Accrued difference between total and planned depreciations Dec 31.	11 791		11 700	

# Notes on the financial statements

	GROUP		CAA	
	1997	1996	1997	1996
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
<b>Total depreciation on fixed assets (FIM 1,000)</b>				
- planned depreciation			216 550	197 187
- additional depreciation			2 171	26 119
- work in progress			22 940	7 879
Total depreciations for the state enterprise in 1997 and 1996			241 661	231 185
<b>5. Stocks and shares (FIM 1,000)</b>	Book value		Book value	
Telephones	183	110	183	110
Stocks and shares	689	681	686	681
Other stocks and shares	25	25	25	25
Subsidiary shares:				
Kiinteistö Oy Lentäjantie 1			22 145	22 145
Finland Airport Services Ltd.			400	400
Kiinteistö Oy Turun Lentorahti			5 000	5 000
Kiinteistö Oy Lentäjantie 3			5 641	
Total stocks and shares	898	815	34 080	28 360

## 6. CAA Group companies

	Profit	
	1997	1996
	FIM thousand	FIM thousand
Kiinteistö Oy Lentäjantie 1	2 399	953
Finland Airport Services Ltd.	147	313
Kiinteistö Oy Turun Lentorahti	-250	285
Kiinteistö Oy Lentäjantie 3		
(Interim report 1. July - 31. Dec 97)	-216	

## 7. Increase and decrease in shareholder equity items

Restricted shareholders' equity				
Beginning of year	1 097 236	1 072 236	1 097 236	1 072 236
+ increase/ -decrease		25 000		25 000
End of year	1 097 236	1 097 236	1 097 236	1 097 236
Non-restricted shareholder equity				
Beginning of year	1 262 131	1 262 131	1 262 131	1 262 131
Profit/loss for previous years	135 605	92 878	146 744	102 909
Shareholder dividend	-5 000		-5 000	
Profit (+), loss (-) for financial year	72 935	42 727	73 272	43 835
At end of financial year	1 465 670	1 397 736	1 477 147	1 408 875
Total shareholders' equity	2 562 906	2 494 972	2 574 383	2 506 111

# Notes on the financial statements

	GROUP		CAA	
	1997	1996	1997	1996
	FIM thousand	FIM thousand	FIM thousand	FIM thousand
<b>8. Provisions</b>				
Accumulated deprecation difference	11 791		11 700	
Optional provisions				
Transition provision		12 827		12 827
<b>9. Funds allocated from national budget</b>				
Funding received against performance			<b>1997</b>	<b>1996</b>
Air Force fees			56 944	59 000
Fees from Frontier Guard			530	570
Fees from Meteorological Institute			1 778	2 280
Fees for rescue services			6 914	4 305
For basic staff training			6 037	6 089
			<hr/>	<hr/>
Unearned income			72 203	72 244
For investment projects			28 352	34 276
For operations			15 976	17 568
Donations				470
			<hr/>	<hr/>
			44 328	52 314
<b>10. Staff paid out of state funds</b>				
Number of staff			99	106
Wages and bonuses			7 862	9 014
<b>11. Funding from local authorities</b>				
Unearned income				
For investment projects			10 583	865
<b>12. Funding from the EU</b>				
Unearned income				
For investment projects			3 287	
<b>13. Guarantees, pledges and liabilities</b>				
Guarantees on behalf of Group companies				
For Kiinteistö Oy Lentäjäntie 1	115 000	115 000	115 000	115 000
For Kiinteistö Oy Turun Lentorahti	10 500	10 500	10 500	10 500
For Kiinteistö Oy Lentäjäntie 3	65 000		65 000	
Pledges on own behalf:				
Kiinteistö Oy Turun Lentorahti	15 000			
Leasing liabilities	324	347	324	347
Guarantees, pledges and liabilities in total	205 824	125 847	190 824	125 847

# Notes on the financial statements

## 14. Flight Safety Authority regulatory functions, financial result 1997

Turnover for regulatory functions in the financial year 1997 was FIM 4.1 million. Turnover resulted mainly from fees and charges for supervision and licences relating to airworthiness certification. In addition the Flight Safety Authority levies licence fees from commercial air operators.

Independent spending for the Flight Safety Authority in 1997 amounted to FIM 17.9 million, of which the largest part was for personnel (FIM 15.8 million). In addition there were a total of FIM 6.3 million for general expenses on operations such as office expenses FIM 3.0 million, equipment calibration FIM 2.7 million, IT services FIM 0.3 million, and postal charges FIM 0.3 million. Total expenditure thus rose to FIM 24.2 million. The deficit for the financial year is therefore FIM -20.1 million. The deficit will be covered by other activities of the CAA.

The number of persons employed by the regulatory body at the end of the financial year was 60.

## 15. The CAA in the state budget for 1997

The preliminary profit target set in the state budget for the financial year was FIM 42 million. The actual profit for 1997 was FIM 73.2 million.

The CAA was given authority to borrow FIM 250 million. An absolute guarantee of FIM 65 million was given on behalf of the subsidiary Kiinteistö Oy Lentäjätie 3.

FIM 251.7 million was spent on investments although the budget predicted a capital spending requirement of FIM 300 million.

### Key figures

### CAA

	1995 Actual	1996 Actual	1997 Budgeted	1997 Actual
Turnover (FIM million)	754,0	840,0	834,0	971,4
- change, %	11,2	11,4	6,5	16,5
Operating profit (FIM million)	235,9	274,8	255,0	310,9
-Operating profit as % of turnover	31,6	32,7	30,6	32,0
Profit (FIM million)	28,7	43,8	42,0	73,2
- profit as % of turnover	3,9	5,2	5,0	7,5
Return on invested capital 1)	1,3	1,6	2,0	2,5
Gearing ratio -% 2)	87,9	84,8	86,7	85,2
Investment as % of turnover	40,9	34,9	36,0	25,9
Number of personnel	1599	1629	1615	1670

### Formulae

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

2) Own equity + reserves / balance sheet total

# Notes on the financial statements

## 16. CAA electricity grid operations

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

### Principles for dividing joint cost and balance sheet items

#### Other expenses

A proportion of Helsinki-Vantaa airport's general costs has been allocated for the electricity distribution operations of the power plant operating at the airport 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.

#### Financing income and expenses

Self sufficiency in funding has resulted in a positive outcome for electricity grid operations in 1996 and 1997.

#### Changes in balance sheet items (during financial year 1997)

The fixed assets (equipment and buildings) allocated for electricity grid operations form the opening balance sheet of the electricity network operations. Under balance sheet liabilities, assets have been divided into basic equity capital and other capital in the opening phase.

		1997 FIM thousand	1996 FIM thousand
Buildings and structures	Acquisition cost Jan 1.	641	641
	Increase during financial year		
	Acquisition cost Dec 31.	641	641
	- Accrued planned depreciation Dec 31.	-523	-464
	Book value Dec 31.	118	177
Machinery and equipment	Acquisition cost Jan 1.	45 059	41 412
	Increase during financial year	2 702	3 647
	Acquisition cost Dec 31.	47 761	45 059
	- Accrued planned depreciation Dec 31.	-32 950	-30 554
	Book value Dec 31.	14 811	14 505

#### Receipts on sales

Receipts on sales for 1997 are true receipts. For the previous year they were defined only for accounting purposes.

#### Transition receipts

Funding from the CAA during the financial year.

#### Short term non-restricted shareholder equity

Accounts payable relate to purchases concerning grid operations. Transition payables include the holiday pay reserve for staff holiday entitlements and intermittent performance related bonuses.

#### Staff

During the year the average number of staff for electricity grid operations was 8.

As electricity supply and sales operations have become established so the balance sheet information in the book keeping has become more accurate for the 1997 financial statement.

# Notes on the financial statements

## Income statements

## POWER PLANT

	NETWORK OPERATIONS			SALES OPERATIONS		
	1997	1996		1997	1996	
	FIM thousand	% FIM thousand	%	FIM thousand	% FIM thousand	%
TURNOVER	9 277		7 049	16 268		18 040
Other revenue from business operations						
EXPENSES						
Materials and supplies						
Purchases during the financial year	340		120	27		30
External services	3 031		1 153	15 721		15 604
Staff expenses	1 806		1 336	259		261
Rents	607		195	26		
Other expenses	746		672	50		13
TOTAL EXPENSES	6 530		3 477	16 083		15 908
OPERATING PROFIT	2 747	29,6	3 571	185	1,1	2 132 11,8
DEPRECIATIONS						
Buildings and structures	59		59			
Machinery and equipment	2 396		1 885			
DEPRECIATIONS TOTAL	2 455		1 944			
OPERATING PROFIT	292	3,1	1 628	185	1,1	2 132 11,8
INCOME AND EXPENSES ON FINANCIAL ITEMS						
Interest income	13		80			
Other financing income			25			
Interest costs			-87			
Other financing costs			-16			
TOTAL	13		2			
PROFIT BEFORE INCIDENTAL ITEMS, PROVISIONS AND TAXES	305		1 630	185		2 132
PROFIT BEFORE PROVISIONS AND TAXES	305		1 630	185		2 132
PROFIT FOR THE FINANCIAL PERIOD	305	3,3	1 630	185	1,1	2 132 11,8

# Notes on the financial statements

Balance sheet	POWER PLANT GRID OPERATIONS	
	1997	1996
	FIM thousand	FIM thousand
<b>ASSETS</b>		
FIXED ASSETS AND OTHER LONG TERM INVESTMENTS		
Tangible assets		
Buildings and structures	118	177
Machinery and equipment	14 811	14 505
	14 929	14 682
CURRENT AND FINANCING RECEIVABLES		
Receivables		
Accounts receivable	795	573
Receivables carried forward	219	2 277
	1 014	2 850
ASSETS TOTAL	15 943	17 532
<b>LIABILITIES</b>		
OWN EQUITY		
Basic equity capital	7 800	7 800
Other equity for start-up phase	5 200	5 200
Profit/loss from previous financial years	1 629	
Tilikauden voitto/tappio	305	1 630
	14 934	14 630
RESERVES		
CURRENT LIABILITIES		
Long term		
Loans		1 872
		1 872
Short term		
Accounts payable	580	80
Accrued expenses and deferred revenue	429	950
	1 009	1 030
LIABILITIES TOTAL	15 943	17 532

## Return on investment, %

Return on invested capital for electrical grid operations was 2.0%

Formula:

$$100 \times \frac{\text{profit before incidental items} + \text{interests and other financing costs}}{\text{invested capital}}$$

# Proposal on the use of profit

The Board proposes that the Council of State approve the Closing of the Accounts for 1997 and that the profit of FIM 73.2 million for the financial year be assigned as profit of FIM 21,981,688 to the state and that the balance of FIM 51,290,607 remain in the profit/and loss account.

Vantaa, March 2, 1998

*Mikko Talvitie*

*Pekka Hurtola*

*Mona Björklund*

*Seppo Simola*

*Matti Puhakka*

*Tuulikki Petäjäniemi*

The foregoing Financial Statement has been prepared in accordance with good accounting practice. A separate auditors' report on the Statement has been issued today.

Vantaa, March 23, 1998

*Seppo Akselinmäki, JHTT*

*Kalevi Alestalo*

*Markku Pajunen, KHT*



# A u d i t o r s ' R e p o r t

We have examined the Balance Sheet, books, management and finances of the Civil Aviation Administration for the fiscal year 1. January to 31. December 1997. The Balance Sheet drawn up by the Board and the managing director contains income statements, balance sheets and appendices with financial statements for the Civil Aviation Administration Group.

The audit has been conducted as thoroughly as good auditing practice requires. The bookkeeping, drawing up of the balance sheet, contents and presentation have been examined to ensure that there are no essential flaws or lack of information in the closing of the books. The management audit has examined the legality of the activities of the members of the board and the managing director to ensure that they conform to the State Enterprises Act and the Civil Aviation Administration Act.

The management of the Civil Aviation Administration has been organized appropriately. 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 the regulations and good accounting practice. The financial statement and the finan-

cial statement of the CAA group with appended annual report to the Council of State provide an accurate account of both the Civil Aviation Administration's finances and the achievement of the targets set for it by Parliament and the Council of State.

We have examined the income statements, balance sheet and notes in the appendix to the financial statement as itemized separately in accordance with the Electricity Market Act. We propose as our statement that in all essentials the accounts have been drawn up correctly in accordance with the Electricity Market Act and the rules and legal provisions of that Act.

We recommend that the financial statement for the CAA and the CAA group be adopted and that the proposal by the Board in its annual report for the management of the profit for the fiscal year be accepted.

Vantaa, March 23, 1998

*Seppo Akselinmäki, JHTT*

*Kalevi Alestalo*

*Markku Pajunen, KHT*



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P R I V A T E P I L O T



"I fly powered planes as a hobby at Malmi flying club and I got my pilot's licence in 1988. Hobby flying declined during the recession but now it seems to be making a slight comeback. It is still difficult to get people involved in club work, people just don't seem to have the time. Perhaps flying doesn't offer the thrill for young people that it used to. It's become just one hobby among many.

"Our club is based at Malmi airport, where members have access to a single engine Cessna 172. We also give flight training and organize club evenings. We hire the necessary club facilities from the airport and we also pay it for the landing and air navigation services.

"I only really have to deal with the aviation authorities when I am doing the training licence application for our club or renewing my own pilot's licence, so my own image of CAA operations is fairly one-sided. Broader contacts, for example in relation to our club activities, would definitely be a good idea."

## FLIGHT SAFETY ADMINISTRATION

There is a separate official body within the CAA called the Flight Safety Authority which oversees the safety of air traffic and other aviation activities, airports and air navigation. The Flight Safety Authority issues aviation regulations, gives approvals for aviation equipment, maintains a register of aircraft and endorses aircraft mortgages. Official responsibilities also include the granting of various permits and li-

cences and supervision of the activities of permit and licence holders. The Flight Safety Authority has absolute authority over matters that come within its purview, independent of the Civil Aviation Administration proper. Total income from official activities amounted to FIM 24.2 million in 1997, for a profit of 4.1 million.

### Official international cooperation

Successful aviation also requires cooperation beyond national borders. European aviation authorities began to cooperate back at the beginning of the 1970s. The work of the JAA (Joint Aviation Authorities) has resulted in several Joint Aviation Regulations (JAR) for Europe, covering air worthiness, maintenance and flight operation requirements. Nowadays JAR regulations within the European Union countries are enacted under EU regulations.

In recent years it has been observed that the loose cooperative model of the JAA kind is not sufficient to confront the growing international challenges. Because of this there have been moves within the EU to prepare for the creation of a common air safety authority. In June 1997 the EU Council of the European Union took a positive stance on the project. Besides the EU member states, the European aviation industry also supports the idea. The next few years will see



intense efforts to solve the still open judicial, political and practical questions.

### Air safety in Finland

Air safety in most branches of civil aviation in Finland in 1997 was good. Not a single accident or damage occurred in heavy air traffic or light scheduled traffic. Safety in general aviation is also good: there was not a single fatal accident related to powered flight. One accident occurred abroad to an aeroplane registered in Finland, in which two people were injured. In addition there were ten accidents in which damage occurred concerning powered flights.

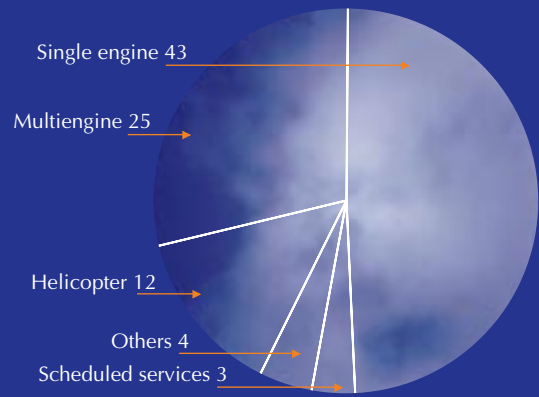
In light leisure flying, one fatal accident occurred in parachute jumping and another in hang-gliding. Four people were seriously injured in parachute jumping accidents and two others in hang-gliding and paragliding accidents. One accident occurred in hot air ballooning in which three people were seriously injured and one slightly. Six sail planes were damaged in gliding accidents.

The last time a fatal accident occurred in heavy air transport in Finland was in 1963, to a propeller aircraft. An accident resulting in death occurred in light scheduled traffic in 1988.

### The likelihood of accidents

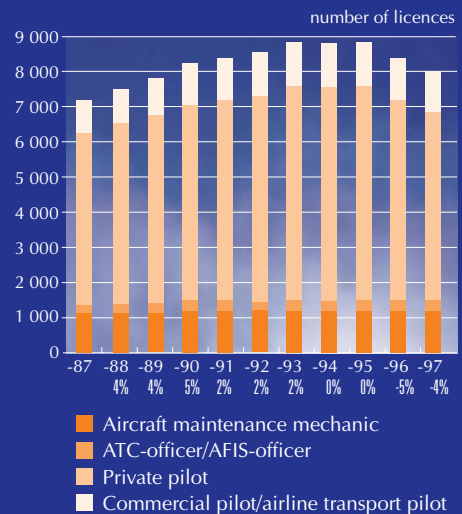
In heavy aviation, western jet aircraft have achieved such a high standard of safety that it is unwise to make comparisons of accident numbers on the basis of a single country's statistics; rather, a larger sample should be employed. According to JAA statistics, the number of accidents resulting in death oc-

AIR OPERATOR CERTIFICATES  
31 DEC, 1997



67 air operator certificate holders

FINNISH AVIATION LICENCES  
1987-1997



curing in heavy jet-powered aviation in the USA and western Europe (the JAA countries) has reached a figure of 0.2 per million flights. USA accident figures used to be slightly better than those of western Europe, but the positive developments of the 1990s have meant that accident figures within the JAA countries are now lower than those of the USA. As a member of the JAA, Finland endeavours in all its activities to maintain at least the standard of safety of the other developed western countries.

There are, however, enormous regional variations around the world. On other continents the likelihood of an accident resulting in death is between 1 and 3 per million flights, even with western jet aircraft. The likelihood of a fatal accident throughout the world has fallen in ten years from 0.66 to 0.50 flights per million.

Because the likelihood of an accident involving death is so low it is not possible to use fatal accidents as a gauge of safety for heavy air transport. After all, at present volumes it would take Finnish aviation more than 80 years to achieve the five million flights at which point an accident would become likely.

### **Reporting and classification of hazardous incidents**

In reality, of course, accidents do not occur with statistical regularity. For air safety purposes it is indeed important to ascertain possible risks and the way they progress by studying hazardous incidents. Investigation of dangerous and anomalous situations relies on a comprehensive and functional reporting system which is constantly under development. The Flight Safety Authority encourages aviators and those in the air transport service sectors to report actively. This encouragement has indeed born fruit and the reporting threshold has gone down.

In 1997 a total of 536 incidents were reported to the Flight Safety Authority. Of these, 62 were in some

way related to the aviation service. Under a classification carried out by the FSA, 15 of these cases could be regarded as involving some degree of danger. Four of the cases involved heavy air transport. All reported cases are carefully investigated either by the the Ministry of Justice accident investigation centre or by the FSA according to the seriousness of the danger. In most of the cases, investigations are still in progress, but according to preliminary information no simple, common cause for the incidents has been ascertained.

In order to provide as accurate a picture as possible of the seriousness of these hazardous incidents and their progress, the SFA has adopted a more precise classification of incident seriousness, which is still being improved. The CAA air navigation department has also developed its own system for anomaly and incident reporting.

### **International air safety**

Conscious effort and attention to safety has meant that all in all, this aspect of international heavy air transport is of a very high standard. However the relative safety level of air transport throughout the world has remained almost unchanged in the last two decades. With world air traffic expected to double in the next ten years, the number of accidents will also increase unless there is a significant improvement in current safety standards. This fact and the publicity given to accidents has prompted international efforts to improve air safety.

Because of the huge regional differences in air safety, ICAO, the international civil aviation organization, decided in 1997 to initiate compulsory and systematic inspections among its member countries to ensure that they can all meet ICAO requirements. In addition, it was decided in Europe to institute so called apron checks for aircraft operated by foreign airlines. Spot checks and checks where required will

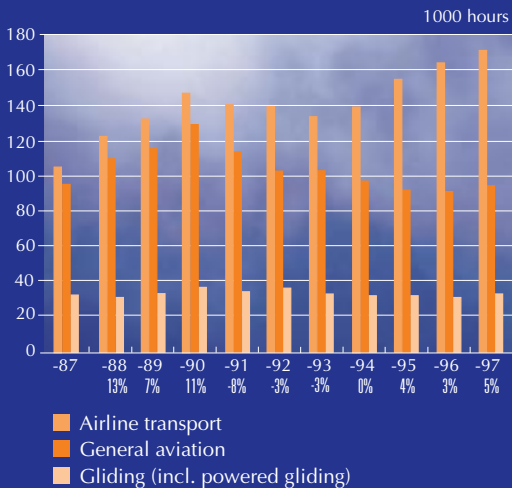
ensure that aircraft and documentation are in order and that international aviation safety regulations are observed in operations. This was made compulsory within the European Union under the so-called ramp inspection directive.

There are a number of international programmes which are also aiming to raise the general level of aviation safety by making use of the latest technology. Greater international use of the ACAS collision warning system will be promoted. An integral part of this will be the increased compulsory adoption of secondary radar.

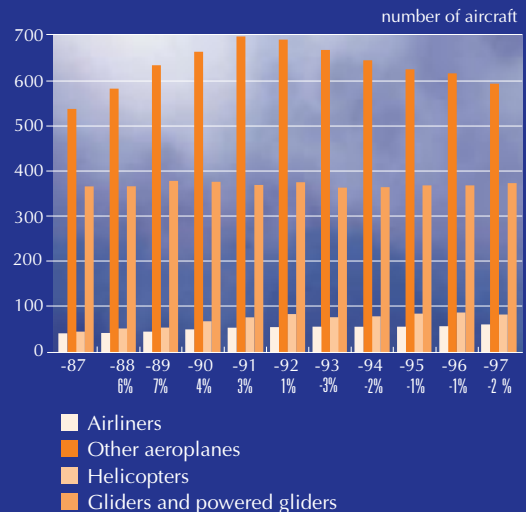
### Income and expenditure of the regulatory body

	FIM million
<b>Income</b>	<b>4,1</b>
Staff costs	15,8
Other costs	2,1
Proportion of general costs	6,3
<b>Expenditure</b>	<b>24,2</b>
<b>Deficit</b>	<b>-20,1</b>

FLIGHT HOURS 1987-1997,  
AIRCRAFT REGISTERED IN FINLAND



AIRCRAFT REGISTERED  
IN FINLAND 1987-1997





Kari Pasanen, technical director, and Kauko Stenroos, managing director, Airfix Aircraft Repair Station. Reijo Pullinen of the FSA, seated.



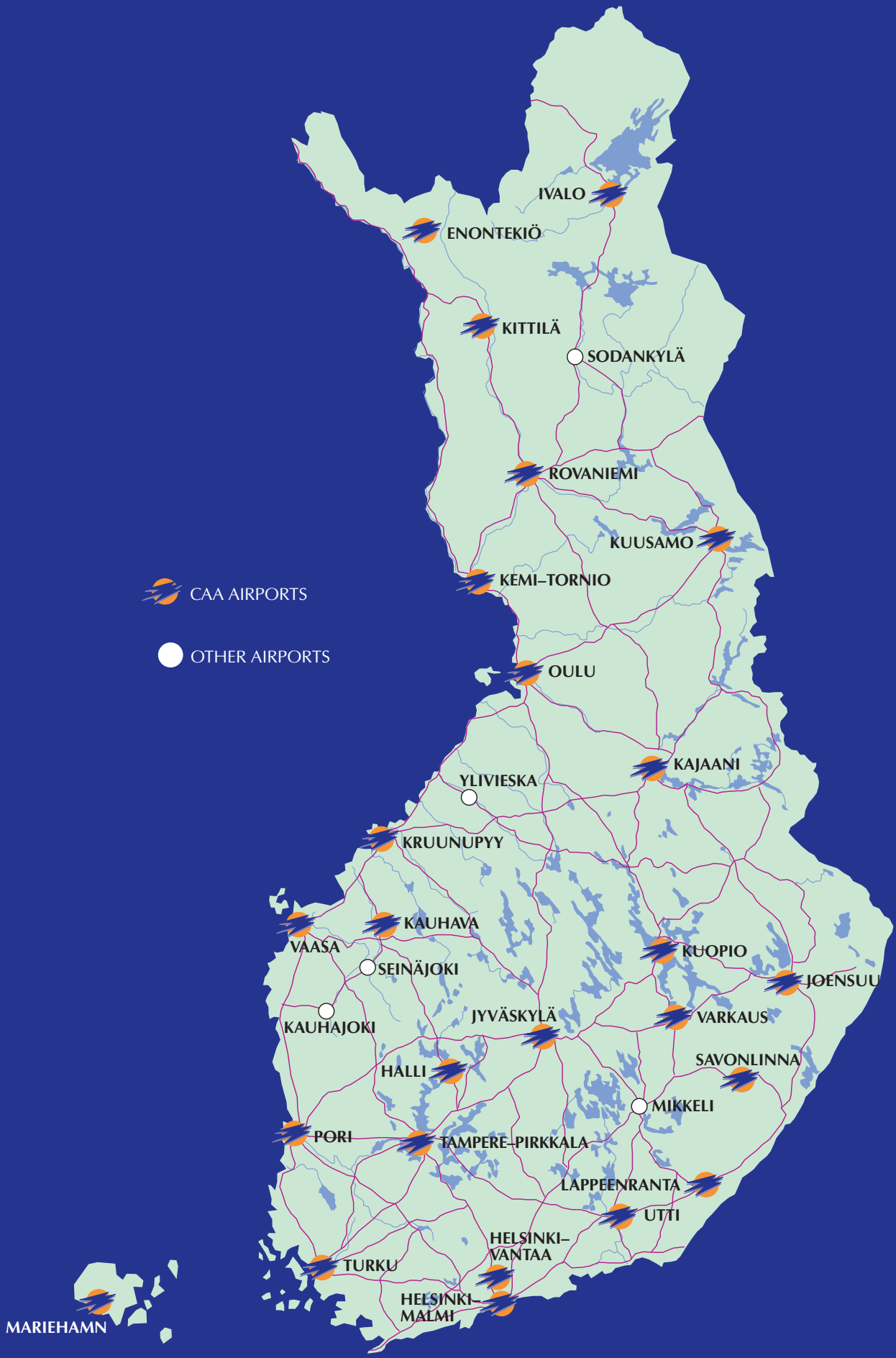
A I R C R A F T R E P A I R S H O P



"We mainly service and repair commercial aircraft at Helsinki-Vantaa airport, as well as handling the line maintenance for AirBotnia scheduled aircraft. The Flight Safety Authority issues the permits for service organizations and it also supervises our operations. FSA inspectors audit us several times a year to make sure we are using regulation instruction manuals, tools and spare parts and that our staff are properly trained. The servicing permit separately itemizes the aircraft types we are allowed to work on and special training for every type is required before they issue the permit. Last year we spent several hundred hours going through piles of papers with the inspectors!"

"When the joint-European JAR regulations came into force in 1994 it created an enormous amount of paperwork for us. For instance, our own service organization handbook and all the workshop instructions had to be adapted to meet the new rules. It sometimes seems as though the demands are really strict, but now interpreting them is a lot clearer and the new systems are already becoming routine."







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FINLAND

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