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ITEM 1
(English only)

CONFERENCE ON THE ECONOMICS OF AIRPORTS AND AIR NAVIGATION SERVICES

(Montreal, 19 - 28 June 2000)

Agenda Item 1: Economic situation of airports, air navigation service providers and their financial relationships with air carriers and other users

THE TRENDS OF DEVELOPMENT OF AIR TRAFFIC IN GEORGIAN AIRSPACE

(Presented by Georgia)

INFORMATION PAPER

To provide air traffic services in the airspace of Georgia is the responsibility of Sakaeronavigatsia, which is a self-financing entity. Therefore the air traffic estimate and forecast are very urgent for succesful development of the enterprise .

Sakaeronavigatsia has been carrying out the activity as a separate entity since the end of 1993 after breakup of the Soviet Union and transformation from the former centralized administration system to self -management. During the 1994-1999 period air traffic flow has been continuing to slow. It was mainly due to a collapse of the economy of the neighbouring Commonwealth of Independent States and Georgia as well entailing the unprecedended recession in their consumption.
The year-to-year change of traffic flow in Georgian airspace is shown in Table 1.

average daily number of movements — Table 1.

flights		1994	1995	1996	1997	1998	1999
overflights	total	110	118	113	88	85	77
	within CIS	91	85	69	47	39	28
	International	19	33	44	39	46	49
departures	total	41	29	32	32	33	26
	within CIS	32	20	21	21	18	14
	International	9	9	11	11	15	12
total		151	147	145	118	118	104

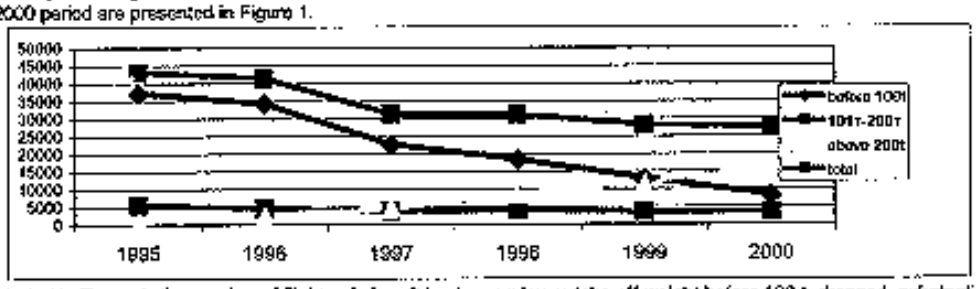
Table 1 shows trends in the steady growth of movements performed International a/companies outside CIS and drop of movements within CIS on the contrary. The International carriers such as Austrian Airlines, British Airways, Swissair and Turkish Airlines performing flights to Tbilisi and Thailand Airlines, Lufthanza Singapur Airlines and others using Georgian airspace while overflights have been superceding Georgian own airlines, many of which have suspended operations due to economic uneffectiveness. However it is impossible to make a estimate precisely because of the recession in the Georgian economy and the influence of world economical environment.

(4 pages)

As a basis to evaluate data forecast for 2000, shown below are used trends of the traffic changes calculated in Excel-program (least squares regression) .

The economic performance of Georgian airlines experiences a significant slowdown. Some of them have ceased their operations. Afterwards just en-route flights will be under consideration.

The year-to-year changes in distribution of the airfleet performing en-route flights depending on maximum take-off weight over the 1995-2000 period are presented in Figure 1.



As illustrated in Figure 1, the number of flights of aircraft having maximum take-off weight before 100 t dropped substantially whereas number of aircraft with maximum take-off weight above 200 t increased over the 1995-1999 years. The reason for the first event is a fall of traffic flow from CIS, while the second one is a result of the installation of new West-East route entailed traffic flow from West Europe and South Asia.

Although the number of en-route flights is a general index for ICAO en-route traffic statistics form to estimate air traffic volume there is one more important item, namely "*aircraft -kilometres*", which determinates volume of work performed.

Regarding Georgia as an example one can see that there are two general air routes within Georgian airspace. The first one, "North-South", is equal to 200 kilometres and the second one,"West-East ", is equal to 600 kilometres .

The air route "North-South" is used by carriers operating within CIS while the "West-East" route across Georgian airspace is included in the international airways network as a segment of the key routes between Asia and Europe.

The trends in development of using the routes are under consideration below.

Figure 2 shows the annual change of average distance depending on take-off weigth aircraft.There is a similar trend as in the case of change in the distribution of airfleet flights depending on maximum take-off weight.

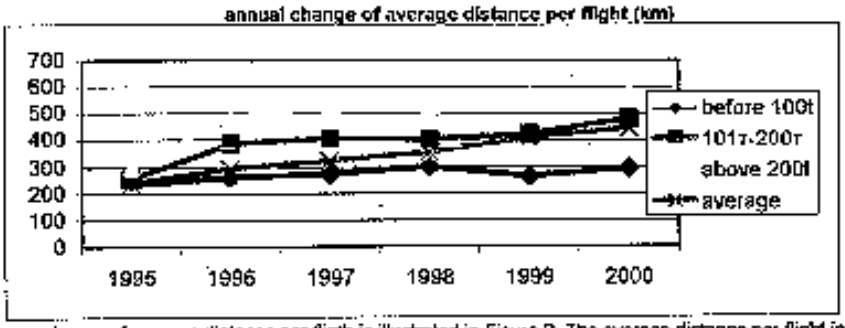


Figure 2

The year-to-year change of average distance per fligth is illustrated in Figure 2. The average distance per flight increased 14,4 per cent annually that is evidence of increase of air traffic using West- East route.

The shown data present that the growth in the share of aircraft with large maximum take-off weigth and average distance per flight has been occurring . This entails an augmentation of *aircraft-kilometres* and increase of operating revenues inspite of the decrease in the total number of on-route flights .

An analysis of recent trends in aircraft distribution according to maximum take-off mass and average distance per flight provides to estimate of traffic volume in "*traffic units*". The number of *traffic units* is calculated by multiplying the number flights by the average distance per flight and the specific coefficient. This coefficient depens on the weight factor of the aircraft.

Table 2

Wmax	Kw
before 50t	1
51t-100t	1,37
101т-200т	1,7
201t-300t	1,77
above 300t	1,8

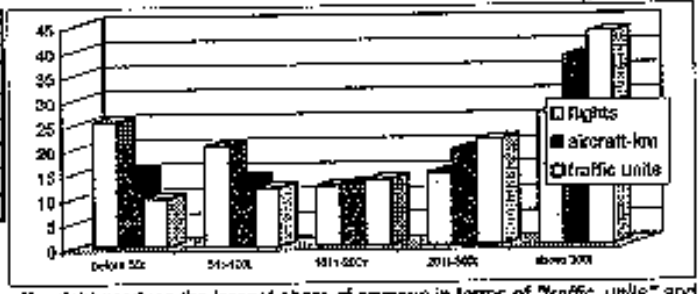
W max -maximum take-off weight of aircraft
Kw - coefficient used to deterominate charge rate depending on maximum take-off weight of aircraft
charge rate =unit rate* K w

Table 3 compares distribution of traffic volume in terms of flight number, *aircraft-kilometres* and "*traffic units*" given in per cent grouping according to maximum take-off aircraft weight for 1999.

Table 3

Wmax	flights	aircraft-km	traffic units
before 50t	25,6	15,8	9,9
51t-100t	20,4	13,5	11,9
101т-200т	12,3	12,7	13,5
201t-300t	14,7	19,4	21,5
above 300t	26,9	35,3	43,2
	100	100	100

Figure3



As shown in Figure 3 the aircraft with the largest take-off weight produce the largest share of revenue in terms of "*traffic units*" and vice versa. Thus the share of en-route flights of aircraft having take-off mass before 50t was equal to a quarter of the total number of flights, but in terms of *aircraft-kilometres*, decreased to 16 per cent and in terms of "traffic units" dropped to 10 per cent. On the contrary traffic volume of aircraft above 300 t contributed about 27 per cent of the total amount of movements but, measured in terms of *aircraft-kilometres* was above 35 per cent and above 43 per cent of operating revenue.

Table 4 compares the annual changes of traffic volume measured in number of en-route flights, *aircraft-kilometres* and "*traffic units*" reflecting operating revenues for ATC over the 1995-2000 period.

trends of flights, aircraft-kilometres and "traffic units"

Table 4

	1995	1996	1997	1998	1999	2000
flights	43094	41977	31481	31056	28160	27571
aircraft-km	10294	12145	10218	11550	11554	11730
traffic units	13058	16183	14390	17028	18435	19286

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