Discussion Panel Report

FLEETS AND MANUFACTURERS

Panel Leaders:
Derrick J. Maple
Smiths Industries Aerospace
United Kingdom

Steven Murray
Airbus Industrie
France

Panelists:
Phillip A. Bolt
British Aerospace
United Kingdom

Alexandre Figuiere
SNECMA Villaroche
France

Darlene Gee
Federal Aviation Administration

Gary Ives
Hurel-Dubois
France

Billie W. Jones
Pratt & Whitney

Mike Lee
Messier-Dowty, Ltd.
United Kingdom

Timothy D. Meskill
Boeing Commercial Airplane Group

John M. Rodgers
Federal Aviation Administration

Vernon F. Thomas
GE Aircraft Engines

John F. Walsh
Walsh Aviation

Introduction

Prior to the Fleets and Manufacturers Panel meeting, the participants submitted their forecasts to the co-chairs for comparison and production of a consensus set of results. In addition, qualitative issues of importance to forecasting in the short and medium term were identified and prioritized prior to the meeting. Additional points were raised and discussed during the presentation of the consensus results in the panel meeting.

Forecasts

The consensus forecast of the panel was that worldwide passenger traffic would grow by 4.8 percent per annum over the next 20 years. The range of views from the panelists ranged from 4.4 to 5.1 percent pa (Figure 1). In terms of regional growth, the consensus showed an overall reduction in the share of North American traffic from 36 percent in 1998 to 29 percent in 2018.

Worldwide capacity as measured by available seat kilometers (ASKs) is expected to rise by 4.6 percent pa over the next 20 years, thereby driving an increase in load factor of 0.2 percent pa from 70.2 percent in 1998 to 72.1 percent in 20 years.

Freight traffic is forecast to rise by an average of 6.6 percent pa over the next 20 years.

Deliveries of turboprops and regional jets of 75 seats and fewer (Class I) are projected to be 6,000 aircraft, with retirements of 3,100 and hence an increase in the global fleet of 2,900 aircraft to 7,800 in 2018 (Figure 2).

The world passenger jet fleet deliveries (75 seats and above) are forecast to be 14,450, with 6,400 retirements, resulting in a net fleet increase of 8,050 aircraft and reaching 19,600 by 2018 (Figures 3, 4, and 5).

Addition of the jet freighter fleet, turboprop and regional jet fleet, and larger passenger aircraft gives a total fleet size of 29,700 aircraft in 2018 compared with 18,540 today.

Qualitative Issues

Several qualitative issues that will drive the fleet of jet and turboprop aircraft in the short or long term were discussed. In the short term Stage 2 noise regulations in the United States and Europe are driving a peak in retirements that is being matched by a peak in new aircraft deliveries. The quantity of hushkitted aircraft that are retained in the fleet is an important driver that could increase fleet size over that required to meet demand.

The impact of alliances was discussed, and it was agreed that it was not a big driver on overall fleet size but could have implications on the mix of aircraft purchased by aligned versus nonaligned carriers. In the longer term, alliances could have a great effect on the shape of the industry by driving down the cost base and allowing fares to be further reduced and load factors increased.

Asian traffic was recognized as being well into recovery, but it was considered that it would take more time for yields to improve and that this was needed before Asian carriers started ordering new aircraft again.

The group recognized that aircraft production was

forecast to be reduced over the coming years, but a key question that the industry faces is whether the forecast decline in supply will match or exceed demand.

The U.S. economy was recognized as a key driver for economies in Europe and Asia and therefore any downturn in the U.S. economy would have global impacts. No economic downturn had been included in the forecasts of the group.

Future environmental legislation was considered by the group as something that could have a fundamental effect on passenger traffic and hence fleet needs but is at this time not quantifiable.

Further noise regulations will also have an as yet unquantifiable effect on the fleet.

The explosive growth of regional jets in the United States could have a serious effect on airport congestion and further exacerbate the shortage of cockpit crew.

A key driver in forecasting future fleet needs is the level of infrastructure congestion and whether this is accepted as a constraint or whether solutions will be found.

A further factor that was discussed is the balance between offering more frequency and more direct services versus the lower cost benefits of consolidation of services.

Comments on FAA Forecast

The U.S. fleet of narrowbody aircraft in 2004 is believed to be about 100 aircraft too low because of the expected retention of more hushkitted aircraft in the fleet.

The large-cargo aircraft fleet could be higher because of increased express freight traffic.

The forecast of the regional and commuter fleet is also believed to be about 100 aircraft too low, given that Embraer and Bombardier are delivering approximately 200 regional jets per annum, of which about 70 percent are destined for the U.S. market.

The turboprop fleet is believed to be around 150 aircraft too high in 2004 as the panel expects greater substitution of services by regional jets.

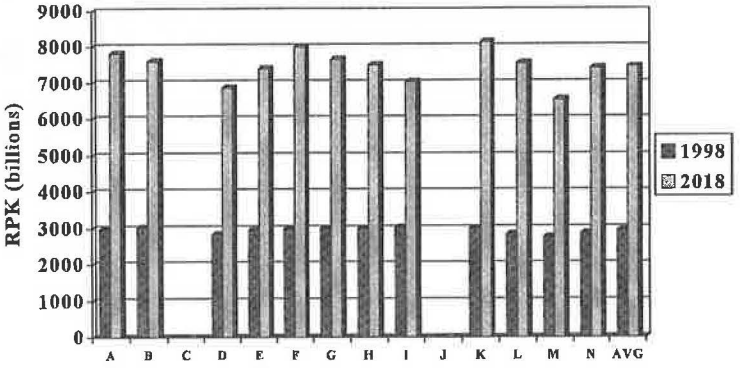

FIGURE 1 Worldwide revenue passenger kilometer forecast.

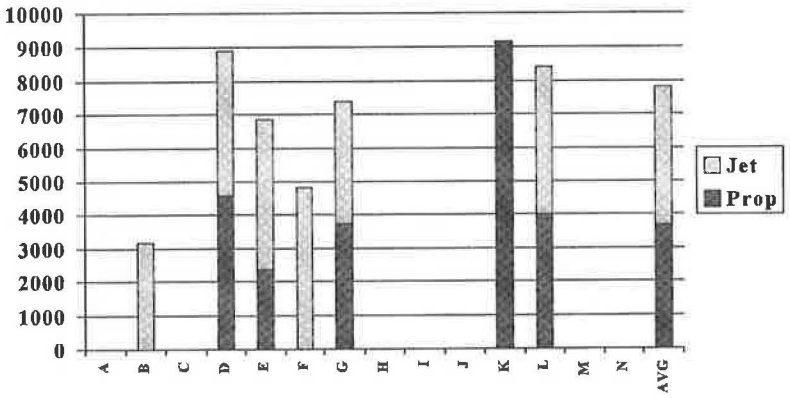

FIGURE 2 Class I aircraft: 2018 fleet size.

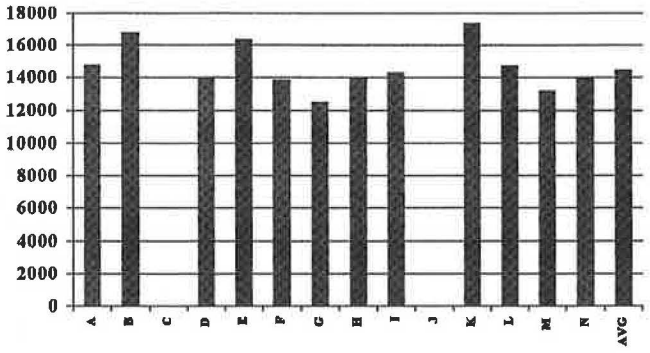

FIGURE 3 Class II/III/IV aircraft: cumulative deliveries 1999 to 2018.

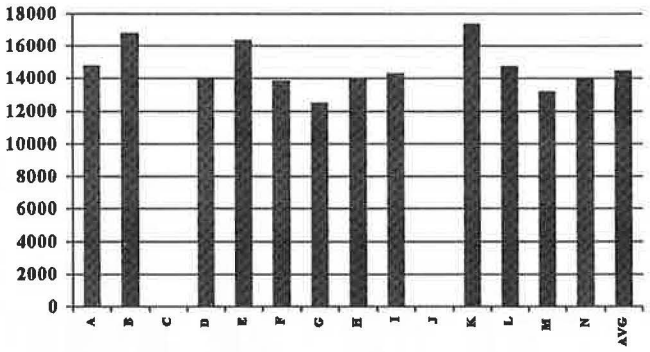

FIGURE 4 Class II/III/IV aircraft: cumulative retirements 1999 to 2018.

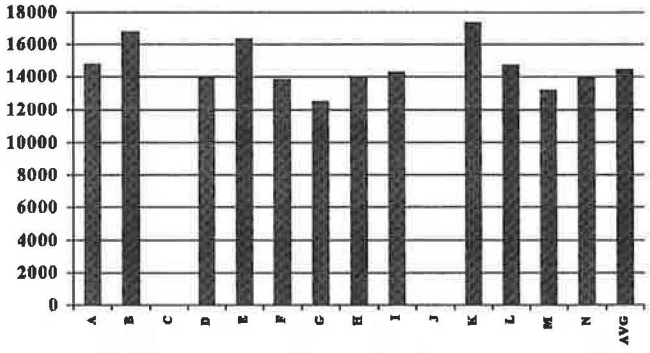

FIGURE 5 Class II/III/IV aircraft: 2018 fleet size.