



INTERNATIONAL ADVISORY GROUP AIR NAVIGATION SERVICES
non-profit organization, founded in 1967

ATC AND THE EC 1989

It is only two years ago that the ECAC had stated, the EC would waste effort, money and manpower in claiming to have a mandate and authority by stepping in and trying to solve Europe's air navigation problem. This is no longer true.

In doing so the ECAC had forgotten that it took the passengers to complain to airlines, and the airlines to complain to airports, and the airports to complain to ATC authorities to get a long overdue public discussion started on what the national air navigation authorities failed to do for years.

Because already today and for sure in 1992, the "public" is "the EC", and the "Single European Act" is due to take effect at midnight on 31st December 1992. So, contrary to aviation deregulation in Europe, there might be a need for regulation of national bureaucracies, because ATC is also politics, as is the EC.

The more people try to get the problem solved, the more pressure is exerted onto national ATC bureaucracies. It is this pressure that gets the politicians started, who in turn will push their bureaucracies. So every voice, every thought, every suggestion should be welcome.

AEA (The Association of European Airlines) in making their report, said that they were presenting their case to obtain political support and in realizing that a more or less uncoordinated continuance of development would result in the barriers in the air not to be removed, and that national sovereignty over ATC would continue to divide the skies, reduce the free flow of aircraft and limit the capacity of the airspace.

With each of the 25 European States, forming the ECAC, having individually and independently developed its own ATC system according to national rather than international needs, it is obvious that difficulties must be encountered in this field today.

The 25 ECAC member states cover a total of 4.643.000 square kilometers. This area is served by 44 ATC centers, which use 22 different ATC technical systems. The full potential of many of these often automated systems, cannot be exploited because of interaction with other systems. Therefore, and on the whole, the overall possible capacity is below the possible potential and a lot of resources are wasted. In the USA in comparison, which covers an area of 7.828.000 square kilometers, enroute ATC services are rendered by only 20

centers, which all use one common system. In making this comparison one should however not forget that it is exactly for this reason, why only 20 centers can manage this higher traffic volume. It is the density of the European air route network, i.e. the traffic density factor, which made the present airspace division in Europe necessary in the past and with the previous technical system generation.

It is true that the principles on which the European Airspace is organized were established to cope with the problems that arose some 30 years ago with the introduction of jet aircraft. The EUROCONTROL ideal of upper airspace sector boundary determination by operational and technical considerations only was never fully achieved due to political aspects.

The question remains as to what was the real cause of the slow development in ATC. Perhaps it was the lack of operational requirements and problem knowledge on behalf of the ATC managers and the systems manufacturer's representatives they negotiated with. But the most superfluous thing to do is to look backwards in the search for the guilty. On the other hand, improvements cannot be reached by lengthy discussions or unanimous agreements on recommendations, but by more or less forceful action in overcoming barriers and constraints of the past.

Airspace users have realized the causes of the dilemma, but seem not yet prepared to act themselves, in trying to support earlier remedies. The causes for the dilemma are not technical or operational, they are organizational, managerial and political. And one should not be astonished by the consequences and results, because these were predicted, but remained unheard. They remained unheard, because they were unwanted; unwanted because the managers who were to discuss them engaged themselves in a money-consuming and not in a money-making business, i.e. in the taxpayers-money-spending business. So they did not have to guarantee ATC system's capability, capacity and efficiency to match and continuously grow with the users demand personally. It was their losses and not that of the service providers. That this picture was only partly correct is proven by the fact that a great number of the suffering airlines are state-owned or partly state-owned. And at the same time that these managers were not personally liable for their decisions and the overall losses, such as the one occurring from industrial unrest of "their" own ATC personnel. A bad job performance, indeed.

For all the losses occurring due to such interruptions or inadequacies of the ATC service provision are to be paid by all taxpayers anyhow. It is for this reason that one can only hope that the EC Parliament will take the right decisions in laying the required legal baseline for a profit-making ATC service provision agencies' structure for its member states. Even if privatization should not be possible for all national agencies, at least industrial commercial rules should govern the planning, maintenance and operation of ATC in Western Europe.

For an ATC system is a production facility. The product is standard separation between controlled flights and an even traffic flow. With governmental agencies not being able to function as production facilities, it is only obvious that the

planning, but primarily the operations of ATC systems are in better hands outside.

Airspace users must produce, and therefore should insist on ATC operations, on which they are dependent, to be freed from governmental ties not allowing them to cope with the task. Also, the airspace user organizations must get involved on their own initiative and by multilateral agreement as partners in ATC system planning and spending. To support a specialized agency, operating under the auspices of the EC, such as EUROCONTROL, might be the solution. Initiative and action seems required, because the danger of coming under just another type of governmental restriction in becoming part of a possible uniform EC regulated ATC bureaucracy must also be realized by all concerned.

Old excuses of required national sovereignty on the provision of ATC services will also soon be a thing of the past, because this requirement was unjust. Not even the states, which had used this argument time and again, followed it. EUROCONTROL, West Germany, Switzerland, Luxembourg and others are just a few examples. Not even the military, who are normally more conscious all insisted on the adherence to this rule. The U.S. Army in Europe with its multinational ATC workforce is just one example.

EUROPEAN ATC SYSTEM DEFICIENCIES

With the presidents of the Association of European Airlines (AEA) having agreed to fund a White Paper evaluating the cost and efficiency benefits of a single ATC System for Europe, one wishes to learn which factors the group took into consideration in making this recommendation. AEA, in concluding noted the following deficiencies: The European ATC-System is a patchwork of 22 different systems.

The physical organization of the European airspace is outdated.

Large parts of the European airspace are reserved for military use.

EUROCONTROL, set up for cooperation and harmonization, has never been allowed to fulfil its role.

International cooperation is not translated into effective action.

ATC experts` advice and recommendations have not been followed by their own administrations.

Serious bottlenecks cause repercussions through the whole system.

The present traffic levels have come as a surprise to ATC planners.

The European ATC system is inflexible to seasonal changes in traffic volume.

The capacity of the European ATC systems is unknown. Fluctuations in real

ATC capacity are caused by inadequate radar coverage.

Shortage of air traffic controllers and poor industrial relations restrict capacity increases.

Joint standards for equipment and procedures are lacking. Air traffic flow management is only a crisis tool. ATC investment has low priority in national budgets. The present ATC structure is cost effective.

Traditional approaches to solve ATC problems continue. Task forces and "fire brigades" have identified and prescribed medicine for the symptoms but not for the causes. There is no concrete leadership in the European ATC system.

THE ATC WORKFORCE

As regards staffing problems for European ATC systems, it must be irrelevant to discuss and complain about the lack of experienced controllers, when at the same time no measures are taken to stop the "exodus" of good controllers from Western Europe to New Zealand, Australia, Singapore, Hong Kong, Saudi Arabia, Qatar, and elsewhere in the world for better salaries and working conditions.

It seems to be a sound guess that the recruitment and training of controller students over the next years will not be able to make good for the loss of already licensed controllers. This loss must therefore be stopped immediately. If privatization is the answer to this problem, then privatization must be accelerated. For many EC States have not yet realized that proficient controllers are a natural resource, urgently required by the whole air transportation system the world over.

It does not help to point to Manila, where controllers earn 100 US dollars per month, if your own controllers are emigrating. There must be a reason for them to do so. As "Airline Business" stated earlier this year, blaming the problems on the industrial action taken by harassed air traffic controllers will not make them go away. Europe's aviation authorities and competition policy-makers must first face up to the fact that the problems are the reasons for the strikes, and not the reverse. And that they must cease the piecemeal approach to ATC, which results in a lack of communication between national controllers that borders the absurd.

Therefore an exchange of ATC personnel among all West-European States must become possible in the future, at least however for the EC area. To achieve this, unification and uniformity in European ATC systems must result in uniform air traffic controller selection, recruitment, training, licensing, rating, remuneration, employment conditions and work law.

The EC just recently has decided accordingly in agreeing on uniformity of European air navigation and aircraft piloting licences issuance and mutual recognition.

Positive examples to be followed are available. Portugal has a good remuneration scheme, as has EUROCONTROL; Switzerland has good employment conditions; Italy managed to change controller status from military to civil; and Luxembourg employs foreigners, as does the Netherlands. One aspect should however not be forgotten. Besides English another two international aviation languages are spoken in Western Europe, i.e. French and Spanish. The solution of the overall problem might therefore be more difficult organizationally than envisaged today, because not all controllers speak sufficiently good English to make themselves understood.

There are some 9.400 controllers in Europe, a small number for a professional group and may be for this reason not treated properly.

Even with a reduction in the number of area control centers in Europe, the required total number of air traffic controllers will probably rise in the future. Some States still have to reduce the controller's retirement age to a safe limit and other ATC units are still understaffed, not even meeting today's requirements. A situation, which prevailed in many centers for years and which gave cause to system capacity limitations. It was the management of the same aviation authorities that ignored the requirements in the past, did not recruit enough ATC students and did not train enough controllers, which promise to now do their part in solving problems quickly. One should be very careful in believing their quick words will show the desired timely results. For these ATC managers are still totally dependent on their governmental financing bureaucracies. So, continuous monitoring and airspace user involvement in ATC planning seems not only advisable, but necessary.

With many aerodromes only being provided with aerodrome flight information service at present and requiring ATC service in the future due to the implementation of commuter airline services under instrument conditions, again more controllers will be needed. England for instance needs 100 + controllers and Spain over 700.

It should therefore not be forgotten that it takes some four to five years for an ATC student to be trained, licensed, rated and proficient; in fact much too long.

ATC SYSTEM CAPACITY

Why is ATC system unification demanded? It is for the required increase in system capacity, i.e. capability to handle more flights without delay. This capability is dependent on available machinery and controller proficiency and motivation.

ATC system capacity actually is that of individual control sectors of the controlled airspace with their assigned sector controller team, and is not easy to have. Type, number and configuration of ATC subsystems are dependent on a number of factors, resulting in technical and operational capacity figures. These factors are the given geography and topography, the type and volume of

traffic, available technology and financial funds, system philosophy and services to be provided, applicable technical and operational standards and procedures, machine capacity and controller as well as supervisory management capability and proficiency. If one takes a close look at the number of European ATC units, it becomes apparent that their number is high, possibly too high. The above factors must be taken into account, when airspace sector delineation shall be changed. One must also differentiate between technical ATC system capacity (size of machines, data throughput times) and their overall capacity, depending additionally on the available airspace, the number of controllers and the control methods and procedures applied. Only a few European ATC systems had been planned for a regular traffic load of 1000 flights per day. Most of them were planned for less, but have been continuously overloaded, especially those at the circumference of Europe.

One of the major causes of the inability of the ATC system to accept the instantaneous levels of traffic now seeking access to European airspace is to be found in the way the development of the ATC infrastructure is presently financed. This financing takes place in a way which in most cases is disconnected from any direct relationship to the potential profits to be earned by the operators using the system and is related instead to public expenditure policies whose constraints have been based on quite different criteria. The answer to this problem is European financing for European ATC systems. The weakest link in the chain determines the strength of the whole. European development monies should be spent on ATC system enhancement in Europe, instead of flowing generously into underdeveloped countries, who do not need sophisticated equipment, but academic and training manpower assistance only.

Also, radar coverage is an important element in deciding the capacity of ATC. Minimum separation enroute in a radar covered area is in average 30 nautical mile (nm). In areas where there is no radar surveillance, as is the case in parts of southern and eastern Europe, the separation is doubled and equals approximately 60 nm. The very minimum of radar separation between flights is 5 nm. With this not being a practical minimum to work with, controllers strive to achieve 8 to 10 nm. separation in the average in areas where radar coverage is good.

The forecasting of traffic growth in Europe has been imprecise. Whether perfect forecasts would have prevented the present situation is questionable. Since the capacity of the systems are unknown, the system's limit will not be revealed until they are saturated. The system can at present, therefore, not be geared to command.

It must be a prerequisite for the present and future management of European ATC that its capacity is assessed. Only by comparing capacity and demand can present and future bottlenecks be identified and measures taken on resolving problems.

THE AVAILABILITY OF TECHNICAL MEANS

The required ATC system capability, among other things requires resources. These resources are professionals, money, technology, proficiency and equipment. It is interesting to note that everything needed to achieve the required capability and capacity technically is available on the market, but was not and in still too many cases is not properly used in looking ahead.

In the technical environment a number of recommendations for change are available among the profession. These will also cost money, but not enough emphasis is being put on their elaboration and realization.

The major general constraints to an increase of ATC system capacity and capability are the insufficient number of area controllers, the slow coordination process between working positions, units, systems and countries, the insufficient accuracy of flight progress data, the air route structuring via point source NAV-AIDS and resulting multi-route crossings, the slow pace in performing manual routine functions, the "passive" type of traffic flow forecasting and the resulting in-efficient distribution of departure and enroute slots, and the use of printed paper flight progress strips in the presentation of the anticipated traffic situation.

Modern technical tools, which help to overcome these constraints are available on the market in sufficient number, such as raster scan displays, plasma displays with touch input device, monopulse SSR, interactive high resolution colour/graphic display terminals, fast computers, suitable programming languages such as C and ADA, inertial navigation and flight management systems, and other auxiliary and peripheral equipment of matching technology.

Rare are, however, knowledgeable ATC system functions designers and software programmers. Program functions urgently required in the ATC system are non-radar conflict prediction, flight plan track updating by radar track data, semi-automated coordination processes, an automated flight progress data processing, updating and presentation, system to system interfacing, centralized aeronautical information processing and similar functions to be followed by SSR Mode S and data link message exchange procedures.

To help increase the present systems` capacities the following measures should be elaborated in the technical environment for an increase in airspace and system capacity.

Determination of the actual capacity of the airspace/ATC system sectors.

Comparison between the traffic prediction of flight plan (schedule) coordinators with the actual traffic distribution at the flight information regions` entry and exit fixes.

Setup of a computer program for air traffic flow control within the area control environment and within area control centers for comparison between flight schedule coordinators/air traffic management centers` traffic predictions and the actual conduct of traffic with corresponding recommendations to the area control

service.

Delineation of area navigation parallel bypass routes to existing air traffic services trunk routes in the region.

Delineation of additional area navigation departure and arrival routes from/to international airports and/or regional airports for their connection with the ATC route network.

Enhancement of ATC systems by implementation of computer based national aeronautical information data collection, processing, presentation and distribution systems, able to interface with each other and EUROCONTROL.

Replacement of the present method of point-source airway routing system and corresponding airspace structuring by an area navigation-based parallel route pairing system and corresponding structuring of the airspace in the form of blocks, allowing flight progress data calculation and presentation on computer driven visual display units and fitted with non-radar conflict prediction functions.

Formulation of a requirement on and development of "airborne station keeping" equipment for aircraft on the basis of Threat Collision Avoidance System (TCAS) equipment and Secondary Surveillance Radar (SSR) transponders for the maintenance of longitudinal separation between aircraft by onboard equipment.

The aviation authorities will have to consult with the industry on what is really needed technically to improve the situation over the next years until 1995, besides all other political and organizational barriers to be overcome.

THE EUROPEAN PARLIAMENT'S ROLE

In June 1987 the EC Transport Committee's rapporteur, Mr. G. Anastassopoulos, submitted to the European Parliament a report relating to a number of ATC related subjects. He pointed out that EC policy on air safety should avoid duplication of tasks entrusted to other organizations, like International Civil Aviation Organization (ICAO) and European Civil Aviation Conference (ECAC), a new division with Europe, and the creation of a new European bureaucracy.

He claimed that there would be a need for EC action a) on the necessity for uniform enforcement and application of the ICAO conventions, standards, and recommended practices by the member states, and b) because progress in ICAO and ECAC would be unduly delayed and communication by member states could only speed development in these organizations. He also called for harmonization in the requirements for obtaining pilot licences. At the same time he should have done so also for the air traffic controllers and pointed out the necessity of issuing licences to air navigation system engineers and technicians. He asked for the creation of a single system of air traffic management and ATC for all member states to accede and cooperate with EUROCONTROL to ensure better coordination of civil and military air traffic, standardized communications

and information systems (data bank), as well as to instruct the EC task force to investigate the requirement of good knowledge in English as a condition for acquiring air traffic control diplomas. He should have added the requirement of national aviation courts with the EC and of a corresponding specialized branch of the EC Court in Luxembourg.

In the summer of 1988 the European Parliament decided on the paper for the centralization of ATC in the Community. The Commission also addressed the ATC problem by putting a resolution to the Council on centralizing air traffic flow management in Europe, and recommending closer coordination and cooperation between the states. The Commission has therefore not gone as far as the European Parliament in their proposals. The Council, which is the only EC institution that can make effective decisions, has not yet stated its position.

EUROPEAN CIVIL AVIATION CONFERENCE

ECAC is the conference of the civil aviation directors general of now 25 states in Western Europe. The conference as such has not engaged itself regularly in ATC matters in order not to duplicate ICAO work. However, in 1988 ECAC established a task force to follow ATC matters in Europe. The Conference as such only had advisory powers as all decisions are made at governmental level in each state. The transport ministers of the ECAC countries met for the first time in ECAC's capacity in October 1988 and discussed the ATC crises and decided on measures intended to solve the crisis.

With ICAO and its European Air Navigation Planning Group (EANPG), the ECAC, the EC Commission and EUROCONTROL all not having direct executive power and being dependent on national political will, the question of "What is needed to make national ATC in Europe European?" still requires detailed answers by all involved.

In trying to find the required answers, the EC bodies should identify all existing barriers, making the uniformity of European ATC systems difficult, operationally, technically and organizationally.

It seems reasonable for the EC to exert pressure in order to achieve the overall objective. With the users of the European airspace generating a vast amount of user charges, one has to begin to influence and control the spending of these monies in ATC systems planning and operation.

EUROCONTROL

The transfer of ATC functions in the upper airspace of Europe to an international agency from national authorities was an important part of the first Eurocontrol Convention in 1960. In 1965, however, France and the United Kingdom again decided that they would not adhere to this decision. The second EUROCONTROL Convention adopted in 1983 leaves this decision to national discretion.

Already with the first Convention, EUROCONTROL was charged with the common organization of air traffic services in the upper airspace. The second Convention was amended to coordinate national plans in order to establish a common, medium-term plan, but now for both upper and lower airspace. Success has been slow in this area; the first edition of the Common Medium-Term Plan was adopted in November 1988 by the EUROCONTROL Permanent Commission - 28 years later than the establishment of the agency. The reality is that some national authorities have refused to show their ATC plans to EUROCONTROL, let alone consult with the agency.

EUROCONTROL with its 12 member states coordinates national plans and training, provides studies, research and training in air navigation, collects user charges and operates one ATC center in Maastricht for the upper airspace of the Netherlands, West Germany, and Belgium. EUROCONTROL has, by itself, no final authority; the board, the Permanent Commission is composed of the transport ministers of the member countries. The only real assessment of EUROCONTROL is that it has been allowed little power and has therefore not been the vehicle for coordination and harmonization it was set out to be.

EUROCONTROL was finally set up in 1963 by Belgium, the Federal Republic of Germany, France, Luxembourg, the Netherlands and the United Kingdom. Ireland joined in 1965, Portugal in 1986, Greece in 1988 and Turkey in 1989. Malta, Cyprus, Italy and Spain have applied for membership. EUROCONTROL's three major priorities in getting on with the job are:

The implementation of a central flow management unit to replace the present fragmented system of flow management in Europe.

The identification of the specific actions needed in order to expand capacity of the European ATC System as a whole.

The provision of assistance in, or direct undertaking of planning, research and development, implementation and training, as agreed or requested by states.

But ATC planning has long time-scales. The political will so recently developed must be sustained even if the pressure from increasing traffic temporarily diminishes. Furthermore, the will needs to be communicated through all the states of Europe, not least amongst those whose holiday attractions are at the root of the summer peaks of traffic.

Keith Mac, EUROCONTROL's Director General, strongly encourages these states to treat the cost of developing additional ATC capacity as an essential investment in future prosperity, which will be repaid from increased traffic earnings.

The states should not forget that probably every state is short of air traffic controllers, air traffic engineers and the operational planning staff needed to create the additional air traffic system capacity required.

Keith Mack also hopes that there is a realization in Europe that we do have to pull together, that we need a coherent and integrated ATC system, that we must strive hard towards bringing the present arrangements to that state and that in EUROCONTROL the States have the means if they have the will. EUROCONTROL is not in charge of ATC in Europe and will probably not be given the responsibility by the national transport politicians. It is too big a share for them to lose.

I C A O

One of the major solution finding bodies in EANPG, the European Air Navigation Planning Group, representing 25 member states of ICAO in Europe. As a subordinate body of the EANPG, the Future European ATC Systems Concept Group (FEATS) delineated the concept of a comprehensive conceptual Air Traffic Management System and EANPG urged provider states of the European ICAO Region to employ the concept as a basis for development for future ATM systems.

The approximate time frame for such systems implementation will be the period of 1995 to 2015, with necessary sub-systems and software only becoming available by the mid-1990`s, too late in the eyes of a number of airspace users.

An important change in the air route network philosophy is the long required realization for the need of basing capacity planning on an area control concept, rather than on an airway network to allow the expansion. Europe at present employs a fixed route airway network, but there is reasonable expectation that a global satellite navigation system for civil use will be operational by the mid-1990`s.

ICAO`s EANPG with FEATS is the second major technical problem solving body in Western Europe next to EUROCONTROL. It seems, however, that a third kind of body is required representing the airspace users and helping to elaborate solutions for input to ICAO and EUROCONTROL also.

ICAO`s regional office is in Paris. The EANPG through ICAO gives advice to states, but does not have any executive power.

AIRSPACE USER ORGANIZATIONS

With governmental types of air navigation organizations being dependent on national political will, and airspace user organizations not, other means must be sought in order to speed up the process.

Also, all European organizations engaged in aviation and dealing with ATC matters are lacking executive power. This should not restrict airspace user organizations in elaborating possible solutions themselves. It means that user organizations such as IATA, IACA, ERA and AEA should not only present their problems and demand, but actively involve themselves in the process. It will not

matter that such activities will hurt some people in the present authorities' environment. Everything has its price, also accelerated progress.

If money is lacking to perform such activities, then the EC should be approached on using the European development fund or required monies should be withheld from the overall payment of airspace user charges to cover the occurring costs. This money will not be lost, since it will be spent in the Community's common interest.

Since governmental bureaucracy must be slow, such a course of action seems to be the only possible way to apply industrial and commercial procedures and to safeguard ones user position.

There must be enough companies in Europe to perform such as task successfully in cooperation with and assisted by aviation research institutions, such as NLR, RAE, CENA and DLR.

After all the talking and presenting of facts and problems, the airspace user community should now get together. An air transportation industry task force should be formed for the elaboration and formulation of their proposals on medium term remedy of negative effects and on long term solutions to the overall problem.

THE INDUSTRY

The number of capable air navigation and ATC equipment industry companies has gone down over the last number of years. Besides the recuded number of equipment manufacturers, the number of systems manufacturers is limited. The following can be considered capable candidates to assist the European aviation authorities in the upgrading, extension and replacement of their ATC systems.

THOMSON / CSF
ALENIA
SIEMENS ATM

Their capable American competitors are

Westinghouse Electric - ESG
Hughes Ground Systems
Raytheon
IBM
UNISYS

New names have come on the market as regards capable program producers and system function designers, such as Systems Designers in England and Cap Geminini Sogeti in France. In this context and besides Systems Designers Ltd and C.G.S. being big companies, one should realize that the required knowledge and expertise is also with the small consultancy companies and not only the big ones, who concentrate on everything except the ATC speciality. The unwise

employment of ATC inexperienced consultancy companies in this field should be avoided in the future.

OUTLOOK

With most of the national ATC administrations` managers not being trained on industrial, commercial management of resources one must agree with AEA that there can be not effective leadership in the European ATC System for some time to come.`

The required leaders must come from the aviation industry, the moneymaking part of the Community.

A different leadership is needed, not only to effect required immediate changes and to make the necessary amendments, but much more to face the challenge that future traffic will be to the system.

The scene has been set with the 12 States of the EC having agreed on a common air transport policy, the aim of which is to encourage competition in the air transport industry and thus make air travel more available to the consumer.

It must be obvious that if the infrastructure is inadequate then air transport cannot increase, and the goal of the new air transport regulations cannot be achieved.

Different European nations have been developing or introducing 22 different plans on how to cope with today`s traffic in three to five years time. But, as AEA reports, even the 12 nations that have agreed on a common air transport policy seem unable or unwilling to undertake the necessary steps that would facilitate the provision of the ATC infrastructure that must be at hand if future traffic growth is to be accommodated. With all the ATC project plans in Europe being elaborated in using public funds, the taxpayers monies, all these plans should be made publicly available for everyone to buy for the price of photocopy paper and to check.

The author of this article is convinced that the measures now taken by the various States will solve only some of the existing problems of Europe`s ATC system.

The rules that govern the planning, operation and maintenance of their systems should be set by a higher level, e.g. the EC, for the national administrations being tasked to adhere to them and to fulfil them.

The airspace users are right in saying that it is essential that a political leadership enabling the consolidation of the different systems into one is essential; and that such political leadership should result in an organization that will ensure a business-like approach to planning, financing, implementing, staffing and running of the systems.

The institutions of the EC have the means and power to achieve this goal. Air transportaion and aviation in Europe constitutes such a major part of the Community`s industry that ATC cannot be left totally in national hands, because the Community might not be able to pay for the national mistakes in the long run.

copyright

F.W. Fischer, ANSA

10. September 1991, first published in Turkish Daily News in 1989