

# **EIGHTEENTH EUROPEAN ROTORCRAFT FORUM**

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## **A HELICOPTER INDUSTRY PERSPECTIVE**

by

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Upon the last European Forum held in France, in Arles 5 years ago, the economic situation of the helicopter industry was poor and civil orders, in particular, had dropped.

A number of events took place since then. New significant programmes, EH101, Tiger and now NH90, have been initiated or confirmed. For the second year now, a large C.I.S. delegation with our friends from MIL and KAMOV is attending this forum and the industry is being restructured with Eurocopter development.

But, as happened 5 years ago, order books are not full, the recession is still with us and we are again confronted with a familiar crisis which will force us to adapt but what can we really do?

## 1. WHAT ARE THE MAIN MARKET TRENDS?

The analysts now have provisional data and methods that are reliable enough, at least for the Western world, C.I.S. excepted.

- Let us first examine the civil market: The number of helicopter registrations trebled during the 1960-1970 decade i.e. an 8% growth a year.

Those times are now over; growth shall be limited to approximately 3% a year and production shall range from approximately 300 to 600 helicopters a year. The missions to be performed by those machines will remain similar as regards, in particular, offshore, EMS and civil defense. The manufacturers shall then hesitate to launch new models and will tend to rationalize the existing ones. Furthermore, the polyvalence of the different helicopters shall have to be improved while reduction of operating costs is prioritized over performance.

- The military market, C.I.S. excepted, is much more unpredictable. It has practically doubled outside the U.S.A. but remained quantitatively stable with 22 000 helicopters approximately, within the U.S.A.. Quantitatively, it has changed significantly with the arrival of specialized helicopters i.e. Apache, Agusta 109, Tiger and Comanche.

This market has been in a crisis since the Gulf War and the political evolution of the Eastern countries. Military staffs are trying to predict threat developments further to those political changes and in the light of local conflicts emerging rapidly. Doubts arise as to the need for specialized helicopters but there is now a request for conventional missions i.e. observation, liaison, target designation, casualty evacuation and transport. This market is taking quite a long time to stabilize and new programmes shall have to be partially financed by the industry with a very far operating perspective.

All this means that the helicopter industry will suffer, at least in Europe, for quite some time.

## 2. WHAT SHOULD THE TECHNICIANS' CONTRIBUTION BE IN THIS DIFFICULT WORLD?

Three main themes deserve their attention:

- The improvement of the helicopters' economic performance
- Their safety aspects
- A greater consideration for environmental constraints
- **Economics:** Whatever the range rationalisation efforts may be, helicopter series will always be limited with aggressive competition from other conventional means of transport. The operating costs must then be significantly reduced if the helicopter's luxury image is to disappear and its fields of application are to be extended.
- **Safety:** The helicopter accident rates remain quite high compared to those of general aviation, for example. This is due to their often difficult operating conditions and also to their mechanical complexity. The cockpit ergonomics must then be improved and the piloting workload must be reduced while the driving mechanisms, which are still too heavy and expensive to operate, are simplified and made more reliable.
- **Environmental constraints:** Let us first discuss the helicopter's operating environment i.e. poor weather conditions, icing, mountain flying etc. Progresses still need to be made for easier flying in IFR conditions, in particular, but there are also public, mainly noise related, disturbances. Internal noise is very easy to manage while external noise is most difficult and this will very rapidly become a fundamental problem if the helicopter is to be operated in urban areas.

## 3. GENERALLY, WHAT CAN OUR INDUSTRY DO IF NOT TO DEVELOP, AT LEAST TO SURVIVE?

Our environment is unstable and the market is evolving in a fairly disorderly manner.

The new programmes are more complex and generate additional development costs.

The odds thus seem against the harmonious development of our industry and we cannot find the peace every industry is longing for, whether it be a long term commercial visibility, long production series or stable customers.

The manufacturers are then forced to organize themselves differently and, very probably, to extend their fields of activity. The most widely explored of those fields is a cooperation over specific programmes. Indeed, new programmes are no longer launched by a single manufacturer and the number of partners involved tends, on the contrary, to increase: 2 for EH101 and Tiger, 4 for NH90, 3 for the less ambitious P120. However, these cooperations shall soon no longer be sufficient and will tend to become more structured in the future. Eurocopter is, in its present form, only a first example.

The industry must then be structured to withstand the recession and:

- share development costs between several partners
- rationalise ranges to extend production series
- unite to benefit from synergy effects

The second field is the provision of a more comprehensive service to the customer. Helicopter support is a traditional branch of activity but the customer needs other services, namely a financial service as well as a training service for pilots and mechanics, and our industry must become acquainted with these.

Our industry is thus confronted to significant perils, at least in Europe, and must react vigorously if it wants to survive first and develop afterwards.

It must rationalize its products and companies via cooperation agreements.

It must listen carefully to the customer as he expresses his needs and concentrate its efforts on operating costs rather than performances.

The technical community gathered here today holds, for the most part, the keys of our industry's success and I hope this forum shall offer an opportunity to develop those ideas.