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IMPORTANCE OF THE AIRMOBILITY OF THE ARMY  
IN THE ITALIAN DEFENCE MODEL  
SITUATION AND PROSPECTS

by

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1. INTRODUCTION

In 1979, being in charge of the Army Staff's research and development activities in the Army Aviation sector, I was given the task of illustrating to the Rotorcraft Forum, the requirements of Italian Army on air mobility, seen as indications of future conduct, in those programs which were meant to obtain a substantial increase in the armed force airmobile potential, in particular as far as antitank defence was concerned.

Main point of the programs of the time was, indeed, the development of a "SCOUT-ANTITANK LIGHT HELICOPTER", according to an innovatory formula which has been chosen later on by U.S. Army for the ASH and later LHX programs.

Let me now remember with pride that the A-129 MANGUSTA, first european attack helicopter and first in the world for its particular technical and operational formula, is operating successfully and with full reliability even in a hard operational environment such as the one in SOMALILAND.

The related strategic situation was, at that time, the deeply-rooted East-West opposition, that is between NATO and Warsaw pact, and from that situation the worrying superiority of Soviet forces, particularly as for armoured forces, emerged clearly.

At present, even in the positive situation which has come about with the fall of the BERLIN wall, the unknown factors of the military problem are increasing as, even though the traditional threat from the East is becoming less important, it could not be ignored at least until in the in the area of the former Soviet Union, a reassuring stability will be established with democracy and freedom.

Many other reasons for possible peace disturbances emerge from several areas of the world which could ask for different actions: from peace-keeping operations, to relief missions, to real military actions, though "military police" classified, against threats and pressures which could upset the delicate equilibria of the world.

Now, after the initial optimism and the high hopes of "peace dividends" due to the drastic cutting down of military expenditures, the problem of defence, taking all its components into consideration, is again in the foreground. It implies the research and definition of new models, which must be compatible with the resources available but at the same time reliable and efficient.

Italy too, of course, is searching for its own defence system, according to principles whose outlines are already known, awaiting the final political approval.

I will touch now on the possible structure of the new Italian defence system, pointing out the difficulties we find in developing an adequate instrument, not only because of the uncertain reference parameters, but mainly because of the heavy limitations imposed by the present economic situation. Nowadays "quantity" is certainly not the element on which to base a new military instrument: within limits it will be possible to operate according to a cutting down trend, provided that the total return of the system is the same if not even superior to previous levels, working on men (selection, training, motivation) and on materials.

This results in a cost which can not be borne with the normal budget allowances (in Italy they are always under the gross home product reference levels, compared to other countries) and in no way with the frequent cuts which make difficult even the simple vegetative existence of the instrument.

At any rate, being certain that Italy, like other countries, can not choose in the future a totally independent defence system, our military instrument must be:

- highly integrable on the joint operation plan;
- able to make the synergy of the different elements work fully;
- able:
  - . to make the defence and collective security contribution sure within the NATO and Western Europe Union according to commonly agreed formulas and force levels;
  - . to guarantee surveillance, and defence of national spaces and of air-sea lines of communication, as well as the control of the territory against risks and threats in existence;
  - . to contribute to ensure the defence of institutions and the presence of the state on the national territory, also to face emergencies due to natural calamities.

The Army will be appropriately restructured according to these principles and it can be said from now on that air mobility, that is the availability of adequate aircrafts, will play an important part in the quantitative cutting down process which should be counterbalanced by higher operational efficiency of every single element.

Within this framework, it could be interesting for people attending this Forum to acquire some indications on Italian Army air mobility development prospects, seen as possible points of reference and guidelines:

- for the technological growth connected to the development of new means related to new exigencies;
- for the desirable governmental and industrial co-operation to start international programs meant to meet the common requirements within the EEC and NATO framework.

## 2. THE ROLE OF AIRMOBILITY

I presume that it is not necessary to mention what we mean by land forces air mobility. Anyway, for those who are not familiar with military doctrines, I will only explain that air mobility does not mean air movement, but the intrinsic power of land forces to expand their operational capacity in the third dimension, making direct use of aircraft for logistic and tactical transport, for intelligence and fire support.

Airmobility finds its best use in airmobile units which are able to perform real airmobile missions when air and land units operate jointly under one command.

The aircraft which made it possible to put this concept into practice is the helicopter, thanks to the features peculiar to its flight characteristics.

But, apart from the obvious advantage gained from being released from limitations imposed by the nature of land to surface operations, which benefit derives from air mobility, as qualifying elements of a modern Army? If the aircraft is not used only for support auxiliary functions, but is meant to be a system at least at same level of importance compared with other means and systems of the armed force, even when not having priority, it becomes an essential component of the operational effectiveness and it gives to the structure:

- high flexibility, i.e. the possibility of rapidly displacing the forces centre of gravity from a sector to another one;
- remarkable versatility, i.e. the capability of readily adapting to different kinds of threat and employment;
- high integrability in multinational forces structures;
- capacity of quick reaction on operational ranges which are not compatible with land vehicles performances.

It is evident that a military structure with these features has an intrinsic power of deterrence being able to react without delay using its own airmobile capabilities for transport, intelligence and fire power, this latter beyond the artillery intervention range, anticipating and, if necessary, replacing the close air support given by aviation air tactical forces.

Fully acknowledging the role of forces amplifier played by airmobility, and in view of the reorganization resulting from the definition of the new defence system, the Italian Army policy is to act consistently. First of all we will not include in the hypothesis of quantitative reductions of land units the Army Aviation units, in order to obtain a better ratio between the air and the land component.

In the meantime the importance of the airmobile support is being proved by the peace-keeping missions to which our country is contributing. In every occasion, Army Aviation men and means, alone or within the context of a complex contingent, have shown their capacities.

I will only mention those missions which have been and are being carried out under the aegis of UNO:

- LEBANON;
- NAMIBIA;
- KURDISTAN;
- ALBANIA;
- YUGOSLAVIA;
- SOMALILAND;
- MOZAMBIQUE.

As for YUGOSLAVIA, I think it proper to remember that Italian Army Aviation contribution has been burdensome because of the loss of four air men, with the treacherous shooting down of their helicopter during one peace-keeping mission.

The President of the Republic conferred upon them, on June 12 last, the highest honour for bravery in wartime.

There is another aspect which is worth remembering concerning a particular feature of the operational versatility of the Army Airmobile structure, that is the fundamental contribution, not always possible otherwise, given in public calamities and natural disasters.

If anyone, in the past, has ever asked himself if Air Mobility is a luxury or if it is necessary for the operational efficiency of the land force, now he can find the answer in the country's gratitude after the innumerable relief and rescue missions carried out on the occasion of earthquakes, rainstorms, rescue in mountainous areas, fires in woody areas. The numerous decorations conferred on the Army Aviation units and on single airmen demonstrate that, among all the investments which are necessary to create a military structure, those which are in favour of the Army Aviation are certainly profitable without delay even in peacetime.

Coming back again to the new defence system, we must say that advance information, in its outlines, make it clear that it would be necessary, among other things, to give impulse to the Army Airmobile component to reach acceptable levels of operational efficiency.

This information however do not allow us to be optimist as to the availability of resources to reach this end.

Anyway, the Army staff is studying new criteria to use available aircraft which today are for the most part assigned to units stationed throughout the national territory, apart from *medium cargo* helicopters and part of utility helicopters which are under the control of the Army staff itself.

In the future, steps will be taken in order to realize downright airmobile forces bodies, which comprise both the land and the air component; the latter with its different specialities: tactical and logistic transport, intelligence and fire support.

Moreover it is desirable that in the near future, the resources needed for the quantitative adjustment, the development and the renewal of fleets will be available.

Besides, looking at a *more distant future*, it will be necessary to focus the problem of the employment of task forces on operational ranges beyond the helicopters, performances.

In fact some situations can take place in which our intervention must be immediate, what is almost impossible if we consider the time needed for the preparation of any demanding operation of aeronaval transport. We therefore need same means available which, though maintaining helicopters' flight main characteristics, provide for higher speed and greater range.



### 3. MEANS FOR THE AIRMOBILITY

#### Aircraft

Army Aviation has at present about 400 aircraft, most of them being helicopters. In particular:

- AB-206 reconnaissance helicopters;
- A-109 liaison and advanced observation helicopters;
- AB-205/212/412 multi-role helicopters;
- CH-47C medium transport helicopters;
- SM-1019 Light airplanes;
- DORNIER DO-228 airplanes for paratrooper drop training, light transport and liaison missions.

Whithout prejudice to the relevant and predominant role of the rotary wing, while it seemed that in the past, among the airmobile means of land forces, there was no longer room for light airplanes used in high-density operational environment, now, being the involved scenarios changed, we can envisage missions for which it would be useful and convenient to use cheaper means from an operational standpoint and having some interesting performances as for autonomy. In fact, in the mission which is now being performed in Mozambico, we are employing, with excellent results, a certain number of SM-1019 light airplanes, for surveillance and liaison tasks on long distances, that are characteristic of that milieu.

### 4. LOGISTIC SUPPORT

Whithin the framework of the Italian Army, Army Aviation was the first to adopt the concept of integrated logistic support, that is now little by little extending to the whole Armed Force.

Army Aviation could grow and stand out passing from the pioneer and romantic period of the first '50s, when the small PIPERS were used, to our present most sophisticated and advanced systems. All that was possible thanks to our pilots and our specialists to whom our full gratitude is due for their professionalism and abnegation in the work that assured the best efficiency and the maximum security of all the means available.

Army Aviation logistics imply all the activities carried out at unit level, all the overhaul and repair activities carried out at the four Repair Units, and other activities directly carried out by manufacturers.

We would like to stress that the concept of "integrated logistic support" has been successfully applied as far as A-129 program is concerned, in which, as far back as its first programming phases, all the possible logistic requirements have been defined. Operators and builders working together have made it possible, but they also took into account didactic aides, among which a complete flight and mission simulator that will be in a short time settled at the Army Aviation Center at VITERBO. But if this apparatus is the most extraordinary device, we must not forget the total of specially built machines, particularly in the data processing field, for assessing the real conditions of the above-mentioned apparatus, interfacing with aboard system.

## 5. COMMAND AND CONTROL

Army is developing a Command and Control C<sup>3</sup>I advanced system called CATRIN (Transmission and Information Field System). Thanks to this system, it is also possible to provide for the operational and logistic management of airmobile means of at corps level, that is part of the SOATCC sub-system (Command and Control Subsystem for Tactical Sighting).

I think it relevant the fact that in the Pool of national industries co-operating for CATRIN development, the producer of the airmobile means is also taking part. That means that Military Staff gives great importance to a rational and integrated management of Army Aviation Aircraft. We can't here examine this system in details: I hope these slides will be sufficient to give you an idea of its general architecture and of its functions.

## 6. FUTURE TRENDS AND GUIDELINES

Starting from our present situation, Army Staff material policy in this particular field is essentially aimed at reaching the following goals:

- to improve logistic support mobility, so as to make it more and more respondent to the new employment hypothesis that are taking shape abroad;
- to modernize and foster flight fleet through:
  - . short/medium term programs:
    - .. strengthening the attack helicopters fleet, giving it fully operational capacities to meet its original formula: "SCOUT and antitank light helicopters";
    - .. modernizing some flight lines, that still have a considerable operational potential, according to rigorous cost/effectiveness criteria;
    - .. putting into service a new technical transport helicopter realized within the framework of NH-90 international program.
  - . long-term programs, for a progressive and total renewal of flight feet on the basis of the following possible trends:
    - .. to provide for a progressive renewal of reconnaissance, liaison, advanced reconnaissance and multi-role helicopters, realizing an helicopter able to respond to the criteria and characteristics defined whithin NATO for a "future battlefield support helicopter",

- .. to consider the necessity of providing for the strengthening and renewal of CH-47 medium transport helicopters, when they arrive at the end of their technical-operational life, which is still lasting if considering that we have ascertained their perfect fitness when they underwent all the necessary modernization processes and being always of valuable contribution.
- .. to re-evaluate, from a qualitative and a quantitative standpoint the impact that attack helicopters have on operational effectiveness, as they are able to support land operations with greater adherence, effectiveness and flexibility than any other land weapons system. Consequently, a program would be worked out for a new attack helicopter whose performances and characteristics will be perfectly suitable to their expected roles.
- .. in case need arises of vertical take off and landing aircraft, which could offer high performances in speed and distance too, we could also consider the acquisition of aircraft with such characteristics, also evaluating if there is already something available on the market or taking part in common development programs.

## **7. IMPORTANCE OF THE INTERNATIONAL COOPERATION**

In spite of the existence for many years of a strong alliance such as NATO and in Europe of many political favourable conditions for a strong European union, we cannot say we have many examples of a rational utilization of our means in a common program of military interest, and all that in spite of the showed off principle summarized in the RSI concept (Rationalization, Standardization, Interoperability).

Helicopters' sector didn't elude this bad logics, considering that many programs have been forwarded and concluded without a real adhesion on sufficiently large scale, and sometimes they have been just started by a single country.

I don't think it possible to continue on this way. I understand there are some difficulties in withdrawing from our contingent situations.

But if the possibility exists to look at the future without any conditioning, to examine together the possible changes in our present scenarios and to jointly determine the consequent requirements evolution, it will be possible to implement in time and progressively all the necessary programs in order to realize a homogeneous configuration of airmobile forces, at least in European countries.

That, of course, doesn't exclude cooperation in other NATO and non-NATO areas, especially if international cooperation will further extend, at the moment when the hypothesis of a conflict between the super-powers will be definitely set aside.

## 8. CONCLUSIONS

As I already said, Army Staff found it convenient to present to a such technically qualified assembly its guidance lines in the airmobile field and all deriving outlooks. If Army Staff desired that I assumed the task of explaining his thought, it was in order to give a sign of continuity with a past that links up to the present according to a logical development line, from the employment of the means produced on licence to the acquisition of advanced systems realized, autonomously or in co-operations, according to precise and aimed operational requirements.

But airmobility concept evolution was not always easy and it has still to go a long way among many difficulties brought about not only by a well-known shortage of financial resources. but also because it is hard to acknowledge the big operational and economic advantages obtainable by expanding Army airmobile configuration to the utmost.

Many people still think that airmobility is a new concept that has to face many other strong traditional concepts. Already in 1500, Nicolò Machiavelli, in his most famous work, "Il Principe", noticed: "We must remember that nothing is more difficult to be planned, more doubtful to happen or more dangerous to be administrated than the creation of a new system. For him who suggests it, that brings about the hostility of those who take advantage from saving the old and only feeble supporters among those who would take advantage from the new"!

And airmobility is indeed a new system.

Still I don't feel discouraged: I am aware of some evident signs and unequivocal statements issued by Armed Forces' highest personalities that assure to the Army Aviation all its relevant responsibilities, taking into account the enormous gratitude gained in serving our Country.