Editorial

In the end, the Heads of Government were fairly swift to reach agreement in early July on the names of Europe’s future leaders: Germany’s Ursula von der Leyen as President of the European Commission, Belgium’s Charles Michel as President of the European Council, Spain’s Josep Borrell as High Representative for Foreign and Security Policy and France’s Christine Lagarde as President of the European Central Bank, this last appointment being due for ratification at the forthcoming plenary session of the European Parliament. On a parallel, on 3 July Italy’s David-Maria Sassoli was elected head of the European Parliament for a 30-month period (through to January 2022).

Choosing people with strong pro-European convictions similar to those of Ursula von der Leyen herself, witness her address to the European Parliament on her investiture on 16 July, revives hopes for a European project supported by all Europeans.

However, Parliament has yet to approve the new Commissioners-designate. On 10 September, Ursula von der Leyen announced their names and their proposed roles within the Commission. The list comprises 27 Commissioners, one per Member State (with the exception of the United Kingdom, which preferred to abstain on Brexit-related grounds) and is made up of 13 women and 14 men, whose political colours are fairly representative of the new balance of power with the European Parliament and its “governmental majority”.

Hearings for the European Commissioners-designate will be staged by Parliament between 30 September and 8 October and the final vote is scheduled for its session from 21 to 24 October in Strasbourg.

If Parliament confirms the proposed nominations, defence issues will be essentially handled by Josep Borrell, as High Representative and Vice-President and, thereby, chairman of the group of Commissioners in charge of "external" issues, and by France’s Sylvie Goulard, Commissioner-designate for the "internal market", whose portfolio will include the defence industry and space (for which a new Commission General Directorate is likely to be created, given the nature and strategic importance of such issues). Naturally it will be vital to ensure a high standard of coordination among these new appointees and their teams, not least the European Defence Agency reporting to the High Representative.

In her various statements and in her letters to the Commissioners on their forthcoming new responsibilities, Ursula von der Leyen has always been highly insistent on the need for consistency and team spirit and, more generally, on the importance of boosting efficiency and ensuring greater cohesion within Europe. All this seems to be pointing in the right direction and we, therefore, wish her every success in her new role.

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European Defence: Between utopia and resignation

By Jean-Paul Perruche, Lieutenant General (retired)
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Following parallel statements from the French President and the German Chancellor in the second week of November 2018 in favour of a "European Army", there has been no shortage of reactions from all sides denouncing the project as utopian – in other words something that will never work and has no chance of ever seeing the light of day.

Conversely, those claiming to be realistic and wishing to be the voice of reason immediately declared that there could be no European defence without the United States and preferred an "army of Europeans", achieved through greater cooperation among national armies. However, while the well-known limits of intergovernmental cooperation over foreign policy and security remain unchanged, this is as good as considering the current situation as cast in concrete and being "resigned" to accepting the status quo. It would seem that the future of European Defence ranges between utopia and resignation!

There is an urgent need to find out if there is any way out of this deadlock, and for this, it is necessary to analyse the stakes, identify the constraints and cast aside our preconceived ideas.

1. What are the issues at stake?

In an increasingly dangerous world, especially at Europe's outer boundaries, the common concern of all European states should be to maintain control over their destiny, not be subjected to the orders of others, avoid conflicts within their borders, make their voice heard among nations and protect their strategic interests. However, the time when European nations dominated the world and rivalled with each other was when their populations, levels of development and technological superiority gave them a clear edge over the rest of the planet. Shifts in demographics and especially the development of other countries, driven by modern means of communication and globalisation, have put paid to this superiority. Moreover, in today's world, each European country, even the strongest, is dominated by newly emerged or emerging external powers. This trend has no chance of reversal and will only worsen in the future.

The fact that Europe is no longer the great power that it was raises a vital issue with regard to sovereignty and power. To cope with their "relative decline", European countries only have two options: to follow a purely national course that will inevitably lead them to exercise their sovereignty by allying themselves with stronger countries while accepting the latter's domination, or to unite their forces to become a world power capable of rising to today's challenges. The first option is that of a Europe of sovereign but dependent nations, which intrinsically carries a high risk of new divisions among Europeans. The second should enable our countries to maintain their influence over the future of the world but requires greater solidarity and therefore acceptance that their sovereignty will of necessity be diluted. The choice is between a Europe of sovereign but powerless nations, and a sovereign Europe of united and interdependent states.

The consequences of Brexit are still hard to establish with any degree of certainty but the British exit from Europe raises the existential question of the EU's survival. If the post-Brexit situation in the United Kingdom were to be better than it was when the country belonged to the EU, this would suggest that membership of the EU is in fact a disadvantage and could prompt the other countries to follow the UK's lead.

However, the difficulties in working out a new balanced relationship between the EU and the departing member are already indicative of the damage caused to the European countries by this defection, not least for the UK itself. The unanimity and solidarity demonstrated by the other 27 EU members in the face of this ordeal have only served to underline the importance of this body, despite the often biased criticisms levelled at the way it works.

For the time being, and despite the difficulties, the vast majority of the 27 members are still committed to the EU, but the changes occurring in the world are such that adaptations will be necessary to enable Europeans better to protect themselves and join forces in defending their common interests.

2. Identifying constraints:

In terms of defence, the first constraint stems from the American guarantee of security in Europe. Behind Donald Trump's seemingly incoherent decisions lies a strategy that radically changes international relations as we have known them since the end of the Cold War, with a return to the power struggle between nations. Taking advantage of American superiority in many areas (not least in the military field), the American President has chosen to adopt an offensive or even aggressive stance on all issues affecting US interests. This consists of creating divisions among both his rivals and his allies by putting an end to multilateralism and then taking the upper hand in the new relationships created with each of them.
This is patently clear in the case of Europe where the American President supports nationalist movements and seeks to divide the European Union so as to be able to negotiate with the weaker states from a position of strength, in other words multibilateralism instead of multilateralism. Trump wants Europeans to spend more on their defence, but not to gain strength by joining forces. He is calling on each of his European allies to make a greater individual contribution to a common defence (within NATO) under the domination of the United States but wants to discourage them from closing ranks within the EU. This attitude is obviously destabilising and dangerous in that it replaces peaceful coexistence with confrontation. The slogan "America first" is tantamount to saying that other nations' interests have to give way to those of the United States. It presupposes a policy of domination that can result in rejection, hostility and increase the risk of conflicts.

**3. Breaking away from preconceived ideas:**

- With NATO in its current form, the Europeans are taking their dreams for reality. In the Atlantic Alliance, Europeans have adopted an ostrich policy since the end of the Cold War by refusing to see that American support has always been conditional upon the importance and interest for the United States of European security problems. Guaranteeing the security of the Europeans has always come at a price that must always be reevaluated in relation to the degree of commonality between European and American interests. It is on this realistic basis that the Alliance has to be constantly redefined for it to maintain its interest for both parties.

- It is undoubtedly a myth to believe that common European defence capabilities can be significantly strengthened by simply pooling national forces in response to changing circumstances.

- To control their destiny, Europeans must be more responsible and therefore more independent in their defence. Lessening their dependency on the Americans should be a strategic objective not designed to shatter but to strengthen the Transatlantic link.

- As for European integration, it should not be seen as a machine for crushing the proud European nations, but as a solution (probably the only one?) for adding power to their sovereignty and enabling them to stem their relative decline. The European Commission, which is the main instrument for such integration, should therefore not be considered nefarious but as a source of power for the EU, giving added weight to its Member States. Its role in trade negotiations is irreplaceable. We also owe to the Commission our ability to implement Galileo, an overarching project beneficial to all the States and preserving their strategic independence. It is also thanks to the Commission’s investment in defence that we will be able to give a boost to defence research and afford the Europeans greater technological independence. The Commission exists to serve the common interests of EU Member States, for which the difficulty lies in agreeing to extend the scope of these common interests. The reason for Europe’s enfeeblement is not Commission red tape, even if something needs to be done about this factor, but the inability of the European nations to unite around common objectives.

By way of conclusion, the sovereignty of our Member States within Europe is indeed the crucial issue that will determine the future of the EU. To address this issue, they will need to make a realistic list of their common interests and set themselves targets that go beyond yet encompass their national objectives, to form the basis for complementarity among sovereignties exercised at European and national level. It will, however, be impossible to attain this goal without the strong involvement of citizens fully informed of the issues at stake, with heightened European awareness and without the complicity of the stakeholders in the process of developing democratic European sovereignty.

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Source: Munich Security Report 2017
My first words will be to thank General de Rousiers not only for having given me this opportunity to speak to you but also, be warned, to ask you a number of questions, starting with the first: what does “sovereignty” mean to you?

1. Commercial aviation is unusual in that it is essentially international:
   - 70% of all flights departing from French airports overfly at least one national border
   - 70% of Airbus sales are outside Europe, a percentage set to increase with Asia and Latin America, etc.
   - Airlines and aircraft manufacturers therefore operate on a global market.

For a certification agency such as ours, this aspect is a vital factor in our work.

2. In our sector, a process of consolidation among European industrialists, airlines, aircraft and original equipment manufacturers (OEM) is in full swing. Where commercial aviation is concerned, the dominant players by far are Airbus and Boeing. For engines and OEM there are few suppliers, the only firms being either in the United States or in Europe.

3. Air transport is more than just aircraft. It is a whole supply chain, including fleet operations.

Since 2013 EASA has extended its scope to the entire supply chain:

   Vertical integration is clearly the order of the day. Airbus, Safran, Rolls-Royce no longer sell just planes but service packages. Airbus forecasts that its actual sales will in future only represent 30% of the income it earns from each aircraft over its lifecycle, the rest being from “services”. For engine manufacturers, the story is the same. For airline companies, the big market is maintenance and it is the Europeans who lead the world in this field. But all this means that, in terms of air safety, the boundaries are increasingly blurred.

New technologies:

   It is now 5 years that I have been Executive Director of EASA but it is in the last two of these that I have witnessed a very sharp influx of new technologies, a phenomenon I had never experienced before, even when the SESAR\textsuperscript{1} programme was at its height. This development is driven by the digital revolution, by drones. New industries, with new mindsets, are springing up around us. While all this offers major growth potential and is potentially highly interesting, it is also a source of risk.

The defence sector:

   It is here that national sovereignty issues are most likely to arise. Yet it is an area where nations are obliged to cooperate. It is also an area where interoperability, operational, technical and international cooperation represent a growing number of constraints.

Access to resources:

   Public services are increasingly short of cash. EASA is a little better off than most but, like the national civil aviation authorities, we are obliged to tighten our belts. We also have difficulties in finding the necessary human resources, since the aeronautics profession no longer attracts the younger generation. But drones and digitisation could make them change their minds.

"EASA… a good example…?"

   Is ours really an example to follow? EASA was set up in 2004/2005, depending on whether you count the date of its regulations or that of the agency’s opening. It was mainly set up at the instigation of European industry, in particular Airbus, to rise to the challenge of establishing standards on a world market strongly coloured by the American administration’s support for Boeing. In international bodies, the Europeans (or “Airbus countries”) tended not to present a united front, which put Europe at a clear disadvantage. Before EASA, under the 1984 Chicago Convention, the individual countries were responsible for certifying all the aircraft listed in their national registers, with the result that “European” aircraft, in other words Airbus, had to be certified by all the Member States, a time-consuming, cost-intensive, bureaucratic process, increasingly difficult to manage in today’s global world. Admittedly the

\textsuperscript{1} The SESAR programme (\textit{Single European Sky Air Traffic Management Research}) aims at providing Europe with efficient and modern air traffic management systems. It is the technological pillar serving the Single European Sky (SES)
A good example begging the question of Member State sovereignty

States had embarked on steps to reach agreement through the JAA (Joint Aviation Authorities) but these had neither the status nor the powers of a real certification agency.

It was, therefore, against this backdrop that, in 2005, the agency was tasked with the key role of certifying European aircraft, a role which was tantamount to Member States yielding part of their sovereignty with regard to the airworthiness of their aircraft fleet. Previously, in France, it was the Civil Aviation Authority (DGAC), the Aeronautical Training and Technical Inspection Department (SFACT) and the Aeronautical Production Department (SPAé) that certified the aircraft in operation in France. From 2005, with the creation of EASA, France dropped these practices and delegated its responsibilities to the EU. For us, this is what is referred to as “exclusive jurisdiction”: all European products are now certified by EASA alone in a single procedure.

When EASA was set up, the authorities were clearly aware that even with the “safest plane in the world”, if pilots are not properly recruited and trained, if planes are not properly maintained, if flight operations are not properly carried out, the risk of accident will be at its peak. And so, little by little, between 2005 and 2010, the scope of EASA responsibilities was extended to all parts of the supply chain.

For all non-product certification and operational activities, EASA and Member States continue to share responsibilities. EASA drafts European regulations for application by Member States. EASA then conducts inspections to ensure that Member States are applying the European regulations. By way of example, Air France is answerable to the French Civil Aviation Authority (DGAC), while EASA inspects DGAC to ensure its compliance with EASA’s European regulations. This two-pronged approach is at times the source of sovereignty issues.

For us, the international dimension is extremely important. At the time EASA was founded, its American counterpart, the FAA (Federal Aviation Agency), enjoyed a (very) dominant position on the world stage, to the extent of conducting audits in third countries, some of them European. Today, I can confirm that the world now has two benchmark agencies, FAA & EASA, which can be deemed a success in itself. It is also worth noting that 90% of new entrants selecting a regulatory framework for their aviation choose EASA. Today we can boast a remarkably strong position on the international stage. We are a fully-fledged, duly recognised agency.

In Central America, almost all countries apply the EASA Regulations (Honduras, Guatemala).

In South-East Asia, there are a large number of countries that have opted for EASA, which is very interesting for our industry in that it is here that the most promising markets are to be found (Singapore, Thailand, Philippines, Malaysia, Indonesia, etc.). In the Middle East, the UAE and Qatar, Iran subscribe 100% to our regulations.

One of the agency’s main difficulties is with the United Nations’ Civil Aviation Organisation (ICAO). ICAO is an agency set up at State level, in which each of the individual States has a vote. Our problem is that we are not associated with a particular State, which means that we are constantly locked in battle with the European States to obtain even observer status at ICAO. EASA is represented in almost all ICAO’s 183 working parties. At times, we even chair one of these groups. But our Member States do not even grant us observer status, even without voting rights. We are therefore in the strange position of being accepted as clandestine contributors, which is anomalous, to say the least.

EASA independence:

70% of our budget comes from industry, which is a real plus. In these days of Brexit, it is more than likely that next year’s European budget will fall (by some 15%). But our workload is unlikely to fall by 15%.

Successful?

Yes, without the slightest hesitation. Where our certification activities are concerned, we obviously have leverage over the States, some may even say that we have annexed part of their sovereignty…

- It was totally illogical for each State to replicate the skills and competencies of its neighbours.
- Do French or European industry pay the price? European regulations may admittedly be cumbersome at times.

EASA is a powerful, internationally recognised regulatory authority, which gives it an edge in our industry.

But that does not preclude difficulties in areas where our activities and national activities overlap. European regulations tend to be a clever cocktail of very different legal cultures (highly prescriptive laws in Latin countries, case law in the Anglo-Saxon world) and very different political philosophies (socialist or highly liberal). Our regulations tend to be bulky documents. They may be interpreted in different ways. In a single market, this is a real problem and raises a number of competition issues.

In France, the DGAC carries substantial weight in technical and resource terms. It employs some 1,000 to 1,500 people, who are responsible for flight security, with regional outposts that oversee airports and industry, etc. By comparison, EASA has a 900-strong team.

In Estonia, the Civil Aviation Authority has a staff of just 25 people. Of course, the market is not the same, with only 8 commercial operators, 3 international airports, some 200 pilots with airline transport pilot licences (ATPL), 1 air traffic control service provider. But while these 25 people may be extremely efficient, it is impossible for them to monitor all operations on their own. With its 1,500-strong workforce, the DGAC is perhaps overstaffed. In France, safety levels are admittedly high but our officials work to a far greater level of detail than in other countries.

The UK Civil Aviation Authority employs a 700-strong workforce for a workload similar to ours (operators, industry, services, etc.).

For EASA, the difficulty (which is also a target and an added interest) is that of guaranteeing the same degree of competitiveness throughout Europe, in as far as this is possible. Admittedly, the various protagonists are free to set themselves up in the different EU States as they wish but, at the same time, there are major differences between the different national regulations, which constitutes a real challenge in itself.
Sovereignty?

Exactly what is at stake here? Industrial policy? This would be logical since most of the industrial firms in our sector operate across Europe, if not worldwide. For example, should we say that France’s role in Airbus has altered or been weakened by the existence of EASA? EASA is a technical body. Political governance occurs elsewhere.

EASA certifies Airbus and Dassault. But this does not interfere with the competitiveness of these two companies.

Are we talking about airspace? Does EASA’s existence prevent the armed forces from doing their job? Not as things stand today. The French and European air forces now have an increasing number of training areas extending beyond their national boundaries. There are ever more NATO, allied, bilateral or occasional joint exercises. EASA has made no difference whatsoever, imposed no restrictions. Although we have regulations, airspace is managed on a flexible basis.

We have had lengthy discussions with the DGAC on the issue of “protecting French interests”. In our new regulations that just recently came into force, the scope of our responsibilities has been extended. We can now take the role of supervisory authority for transnational operators such as Air France-KLM, for flight safety aspects, much to the dismay of the DGAC! Do you really believe that Air France’s interests are better defended by coming under French authority? Quite the opposite. Surely its interests will be better served by coming under an international body including, of necessity, a number of French representatives, if only because 80% of its documents are in French.

Are we talking about security? As the sorry example of the Air Malaysia flight shot down over Ukraine goes to show, civil airspace can be used for warfare. Our duty as an aviation safety agency is to warn users of any potential dangers of which we are aware. When we started to introduce an airline warning system, we were told to back off on national sovereignty grounds. We were told not to circulate information ordering we started to introduce an airline warning system, we were told to back off on national sovereignty grounds. We were told not to circulate information essentially intended for national operators that could be intercepted by foreign intelligence agencies!

For me, this is arrant nonsense. Let me explain why: I am sure you have all heard of Middle East Airlines, a company based in the Lebanon, which happens to be part of the Sky Team group. It is therefore possible to be in possession of an Air France ticket and travel on a connecting flight operated by Middle East Airlines. The company flies all over the world, including Syria and Mali. Speaking generally, what should we in the Middle East Airlines livery. But we must not forget that French nationals may and do fly with other airlines. It seems to me that we have a duty to pass on this type of information to non-French operators.

But we are up against opposition from France, the UK and Germany, which object to information about dangers in conflict areas being circulated on national sovereignty grounds.

The specific case of defence-related sovereignty? We have signed agreements with the French Government Defence Procurement and Technology Agency (DGA) and its European counterparts to set the bases for partnerships with these agencies. When military aircraft are certified, it is EASA that issues them with their airworthiness certificate. The “military” part remains the sole responsibility of the DGA. This is a very good form of partnership, in that it enables DGA to continue to excel in its field, despite a distinct shortage of resources, by being able to count on the skills and competencies of a strong partner for the civilian aspects. EASA’s airworthiness testing resources are based in Cologne. And the system works well. It was used for the A400M, an aircraft whose history goes back a long way and is a good example of a successful certification partnership. And we are currently repeating the operation for a number of new aircraft on behalf of DGA.

The future of EASA

Our new regulations recently came into force and will enable us to improve our interaction with the States. By way of example, in the past when we encountered a problem, we had to report it to the State concerned with the request that it put an action plan in place. If the plan was not executed to our satisfaction, we had to repeat our inspection and issue a further notification. Previously, it was at this point that we were able to refer the matter to the Commission, which would release an official statement regarding the non-compliance of the State concerned. This could then trigger an official European infringement action, a five-year procedure at best! In other words, a waste of time. And in an area as sensitive as air transport safety, this is a real problem!

First change: with the new regulations, when a State is unable or manifestly incapable of correcting the anomalies reported, EASA can now step in to act in its stead.

Estonia has major problems with recruiting inspectors for flight operations. The Estonian government is therefore keen to have EASA fulfil this function. For me, this could be just the start of a process likely to expand across Europe, which will create an even twofold situation with major repercussions for the organisation of civil aviation in the EU:

- small national authorities, with very few resources of their own and supported by European resources,
- large national authorities, working for their own countries but also for us and, by extension, the EU.

Second change: States may now place all or part of their public service fleets (customs, fire brigade, police, etc.) under EASA authority. This is something that France will probably not do but countries such as Poland have shown a keen interest in this possibility. The first to subscribe will most likely be the police forces. These moves represent a major new development that can only tighten the links between the agency and public or semi-public authorities.

Third change: EASA can be named competent authority for transnational operators, in other words, almost all of them. France has fought a rearguard action and requested veto rights. We shall see how things develop. But other protagonists have contacted me to say that they no longer wish to be national but European companies, cases in point being RyanAir or EasyJet, etc. In the next few years, the way civil aviation is organised in the EU cannot fail to evolve.
Where does France fit into this picture?

EASA has a 900-strong team. And I have no desire for this number to increase. Beyond a certain point, you end up spending more time managing the structure than managing the job to be done. If we are given more responsibilities, we will, therefore, have to adapt. It is for this reason, that I have decided to develop a strong sub-contracting policy with the national authorities.

Today we sub-contract some 20 million euros worth of business per year to have inspections carried out in our name.

Our two main contributors are the British and the French. With Brexit, we may have to focus a larger part of our activities on France. There is every likelihood that this outsourcing policy will be extended to aeronautical maintenance inspections, to companies proposing simulator-based training, etc.

EASA has a rather ambivalent relationship with France, which is a sub-contractor and vital partner for us but never ceases to remind us that it is a special case requiring special treatment or that our European regulations are not adaptable to the particular situation in France.

This is basically untenable. By the very size of its team, France is Europe’s biggest civil aviation authority. But in our working parties on regulations, where the actual texts are agreed, France is under-represented. The country the most involved in our groups is Switzerland. Theirs is a very clever move: Switzerland is a member of EASA but not of the EU. Our “comitology” is based on the principle of “one country, one vote”. As I see it, the Swiss have cleverly recognised that, if they arrive on the scene too late because of not being part of the EU, their opinion will carry no weight. Better be in there from the outset and even play a leading role in drafting the official texts. This is a hundred times more effective than the common French and German attitude of opposing proposals at committee stage but very often ending up isolated in the plenary meetings, with the result that the offending regulations are nevertheless adopted.

As I have already explained, we enjoy good partnership relations with the DGA. We have relatively few discussions over the “operational” part of defence, much to my regret. There is far more that we could do together, in particular as regards drones and their remote control, for one of the biggest challenges in the future will be that of making allowance for their presence in civilian airspace. In France, a substantial amount of the action is taking place in Cognac, where a great deal of recognised skills and know-how are available that could be better exploited. With the French authorities, in the broadest sense of the term, we have truly excellent relations. With French industry, I think we have managed to strike a good balance between the added value of our European dimension and the need to protect the interests of our national champions.

Thank you for listening.

Questions/answers

[Q01] What are the risks of saturation in the air transport sector in the future?
[Q02] The FAA handles air traffic navigation. Would it not be a good idea for EASA to do the same?
[Q03] EASA is partly funded by industry. Is this not a potential source of conflicting interests?
[Q04] What about type certification: what are the proportions handled by EASA and the national authorities?
[Q05] What are the relations between EASA and NATO?

Answers:

- air traffic navigation control: we already play a role in this area, even though this is a little-known fact. For the last 3 or 4 years, we have been producing all the technical regulations for air traffic navigation. Admittedly, few are aware of this factor, probably because there exists another European agency, Eurocontrol, with which cooperation has not always been easy. But we have now reached agreement with them on how to share the tasks involved, with Eurocontrol handling operating aspects, including flexible management of airspace and thereby the interface with military flights, and EASA dealing with the regulations and technical inspections. Eurocontrol represents 2,500 people in all. The “Single European Sky” project launched in 2004 has proved a flop. The hope is that the new Commission scheduled for end 2019-early 2020 will be able to achieve better results, since the situation in Europe has become somewhat fraught. By way of example, at the end of last summer, flights were arriving on average 20 minutes late. And you can well imagine that, if the first flight of the morning is already 20 minutes late, the delay will have built up to 3 hours by the end of the day. This is no longer acceptable. The Commission has just set up a think tank, of which I am a member, to brainstorm over “Single Sky 3”.

- Airport capacity: building new airport runways is not easy. There are places where it is better to make better use of those that exist, in particular courtesy of SESAR. Today, there is not much we can do about physical capacity but where air traffic control is concerned, which is currently one of the major brakes on development, there are possibilities for capacity enhancement.

- Type certification: this is handled entirely by EASA. The national authorities are not involved, except for what used to be called “ultralight” aircraft and other collector aircraft.

- Conflicting interests: here the situation is quite simple, since the problem is resolved by the fact of everybody having to pay and the rates being the same for all. EASA is extremely transparent. When we certify an Airbus or Dassault aircraft, for example, and if the plane has a special feature, an innovation, EASA will issue “special conditions”. These enable industry as a whole, including the competition, to challenge our approach. In addition, for almost all of what we do, the FAA also has to repeat the process afterwards or in parallel, so we cannot afford to take liberties. On this point, I should perhaps explain that we are currently measuring the full impact of the new American administration. It is more than obvious that the Trump administration is putting America systematically first. This is nothing new but, of late, the extent of this preferential treatment has taken on major proportions. Yet FAA is a serious agency, with real skills and a genuine sense of public service. It is very careful what it does in an area as sensitive as air transport...
safety. But there have been times when they take short cuts to help out Boeing, or to put a spoke in the wheels of Airbus. Where lithium batteries are concerned, for example, it was quite obvious that the FAA had been told to defend American industrial interests. The big issue for the American administration at the moment is that of supersonic private jets. There are 5 projects currently on the stocks that are all American, two of which have support from the highest level. It is the first time that the FAA has been given direct instructions by the White House. We have also had problems with the Canadians. 17 or 20% of all Bombardier shares are held by the State of Quebec and there has been substantial political interference in the certification processes for Bombardier aircraft, where we have actually had to intervene, in tandem with FAA, itself a noteworthy development!

- NATO: the situation is not easy, since NATO is also very “American”, which means that, where standards are concerned, we tend to deal very little with the Europeans and more with the Americans. We simply do not have the means to negotiate with each member directly for the military aspects. We have always tried to work via a single partner and attempted to adopt this approach with EDA. The results were rather frustrating since EDA has few responsibilities and spends most of its time tapping into the skills and counting on the approval of the States.

But NATO has a wealth of skills and competencies, technical in particular. We are trying to work on airworthiness standards for drones. We are also trying to work with NATO on “compliance” issues. It goes without saying that military aircraft are extremely airworthy and precision-built but the equipment on board these planes is not compliant with our standards, which is why we are cooperating to strike a fair balance: “you may not comply with our standards but at least show us that you are as good as civilian aviation in our priority areas”, these being navigation aids, inspections and communications...

[Q06] The Minister has just launched a major project on transport: is EASA involved?

[Q07] The EU recognises French overseas départements but that is all. Do EASA's responsibilities extend to non-EU French territories?

[Q08] Can EASA set the example in other areas such as the maritime sector?

[Q09] Can EASA set the example in other areas such as the space sector?

[Q10] Post Brexit, what status will the UK have?

Answers:

- Unfortunately, we have not been invited to take part in the transport assizes.

- Maritime sector: we have little or no links with our colleagues in this sector, other than for drones. We help them with supervision of their flight operations. Few links, which is a pity, even though we work to different timescales.

By contrast, we have far more links with the rail ecosystem. Europe is working on developing a system similar to SESAR for the rail sector, a European signalling system. The European Railway Agency (ERA) started out by working on standardisation issues but is now following an approach similar to ours. In particular, it is focusing increasingly on locomotive certification. ERA is based in Valenciennes and we are supporting it on the basis of our own experience.

- Space: I have always deliberately kept my distance in relation to this sector: we have enough on our plate as it is.

When I arrived at EASA, there was a team working on suborbital flights. At the time, it was claimed that these would emerge as a booming market in the next three years. Five years later and still no sign of any action, so I am still waiting. There is one issue that is causing concern for the Commission, namely Galileo. In the original Galileo, there was an aviation dimension, the idea being that it could be used as a single navigation system. But if Galileo were to have this function, then I would have to certify Galileo, which is not part of the plan. Either we agree that Galileo is a supplementary navigation aid, with similar status to GPS, which is perfectly possible, or it has to be certified!

- Brexit: here we are entering uncharted territory. It is matter with which I am very concerned. It would be hard for us to live without British industry in our field (Rolls-Royce, etc.). I was discussing the subject with Airbus recently, which has 700 UK sub-contractors. We have to consider a variety of scenarios, the worst of which would be a “hard Brexit”, but we can propose solutions for all circumstances. Naturally, some stages would be painful but we would get there in the end. That, in itself, is reassuring. I am not talking about dues and taxes, customs, for example, but from EASA's viewpoint, that of flight safety, we can guarantee that operations will be able to continue without hiatus. In the event of a hard Brexit, UKCA will automatically become the authority responsible for certifying British products and recertiifying Airbus, Boeing, etc. The UK government has already officially announced that all EASA output will be automatically recognised. But a hard Brexit is bound to spawn divergencies, since the UK will become a third country. The best case scenario would be for the UK to become an “EASA state” like Norway, Sweden, Switzerland and Iceland, in other words without voting rights but able to take part in our working bodies and with mutual recognition of each other's certificates.

- French overseas territories: our regulations do not apply in these territories. It is French regulations that apply but these are, in most cases, based on the European regulations.
The very first point that I need to make concerns what we are actually trying to achieve. What are our goals? Complementarity cannot be an end in itself. To me, what seems important is that we use and optimise all possible resources and initiatives to tackle the fundamental issue of the “21st century in all its complexity”.

Today, we are faced with a situation that is completely different from anything we have ever encountered before. This complexity involves very different types of players, many highly interwoven parameters, constantly new and surprising situations, and interaction with new environmental and human factors and groups, etc. All these parameters, which are no longer manageable and constitute situations that have to be faced, are handled as and when they occur, without having the time to establish with any degree of “certainty” our chances of achieving the desired effect.

Some major companies have successfully transformed this complexity into opportunities, in line with several key principles:
- The need for “overall intelligence” concerning what is happening in the world; not only via technology, but also by monitoring environmental intelligence, major human and political issues, leading international organisations and economic developments. This is all the more important given today’s worrying signs of a potential imminent major crisis;
- This intelligence gathering process must, by definition, involve a large number of players, since no one organisation, no one country, and no single person can claim to hold all the keys to success. Today, true success stems from “ecosystems” and the ability to forge partnerships, particularly with other than the usual or “obvious” partners;
- This “complexity” is bound to create “surprises” and it would be unrealistic to imagine that they could all be predictable or foreseeable; we must therefore design and build robust and resilient ecosystems:
  - we need to be able to learn how to “be surprised”,
  - we need to be able to learn how to “bounce back from our surprise”.
- In this new world of complexity, speed counts:
  - we need to be able to learn how to “up the pace” when necessary,
  - we need to be able to learn how to “think on our feet”
- There exist two strategic resources:
  - “data”,
  - “human capital”.

Today it is the interaction between people and data that shapes organisations.

Coming back to “overall intelligence” and EU-NATO complementarity. The fact that some Member States belong to both institutions, while others belong to only one of them, is an advantage. The USA and Turkey, in particular, are part of NATO but not of the EU. However, our dealings with the USA are not always easy, as we saw at the Brussels Summit in July 2018. If Turkey were not a member of NATO, we could be faced with major difficulties and concerns in finding the right level of defence and security at which to deal with them.

Ecosystems are three-pronged:
- People (experts, specialists etc.),
- Structures (NATO, EU, AU, OSCE, UN etc.),
- Relationships, on which to base a common future, with the shared desire to progress.

An ecosystem of this type had been set in train for the EU-NATO tandem. However, the Warsaw Summit marked a major shift. The joint statement identified areas for further action. Prior to this, while there had been cooperation, when matters reached political level, things became complicated. Now, for the issues featuring in this joint declaration, it is “the politicians” who give their blessing for cooperation to be taken further. After Warsaw, as SACT, I could talk to the Commission and to the EDA much more easily, in other words better handle the “relational” aspects.

In Warsaw, the two organisations approved three conditions:
- There will be no European army,
- There will be no duplication of command structures,
- NATO will be responsible for collective defence.

Historically, NATO has been entrusted with three missions:
- Collective defence (during the Cold War),
- Security cooperation (after the fall of the Berlin Wall),
- Crisis management (e.g. in Afghanistan).

NATO is expected to be able to manage all three at once, but perhaps developments since 1991 have led to a reduction in the fundamentals in terms of collective defence, a state of affairs that has been corrected since the Ukrainian crisis.

The Warsaw Summit was the historic summit of recent years. It endorsed measures to enhance responsiveness, refocused NATO on these three missions, and acknowledged their complexity.

Responsiveness is measured not only in military but also in political terms.

This is particularly evident in the exercises conducted (80% collective defence, 20% crisis management).

Within NATO, its Defence Planning Process (DPP), which brings together 29 members, is successfully carried out every 4 years, and consists of:
- a political directive,
- translated into military requirements,
- followed by an assessment of NATO countries’ military capabilities,
- then of feeding this information back to the different nations so they can include the appropriate items in their programming laws.

**NATO is now refocusing on collective security**, on its responsiveness and on its high intensity capabilities, which is both a problem and an opportunity. Nations were wondering how they were now supposed to prepare for crisis management. Since NATO was taking on collective defence, we at Allied Command Transformation (ACT) level were then proposing, and organising, that the nations should take responsibility for crisis management.

This is an excellent opportunity for the EU and for cooperation between the two organisations, starting with achievable missions, "small" external operations that would be carried out by the EU, but from A to Z.

**In terms of responsiveness**, one of the keys is knowing:

- Where? Where forces are located and their nature?
- What? What are their levels of training and readiness?
- How many?

Today, NATO does not function this way. It has a system for generating army, navy and air forces, all on standby to differing degrees. A country volunteers its troops, which are then trained and "certified". The country fulfils this standby role for a year and then everything that has been put in place ceases to exist, which results in duplication of effort and wastage. In a way, we used to say jokingly that SACEUR had a clearer vision of its potential enemies than of its partners.

Another solution could be to have countries exchange data to obtain a complete vision of what is available at any given time so that military leaders could tap into these resources if the "politicians" were to entrust them with a mission.

Let us compare this with what happens in the United States: how does the Chief of Defence Staff know what means he has at his disposal to meet a particular presidential requirement? The Americans have developed a fairly advanced project, geared towards cross-referencing army databases with other civilian databases as input for enabling artificial intelligence algorithms to develop scenarios. "For a given type of crisis, these are the forces available, their limitations and logistics resources... And these are the elements not covered, from the outset, by these arrangements."

As Supreme Allied Commander Transformation (SACT) for NATO, I presented this project under the heading of "innovation", and it was accepted by all 29 countries. It is based on the principle that sensitive data will be shared, which means that the NATO Council must first have recognised that a particular crisis situation constitutes a conflict within its area of authority. At EU level, we could do the same with a core group of willing countries.

My staff has also been working hard on how to use centres of excellence, mostly developed mostly within NATO, to the benefit of both organisations. There are centres of this type for cyberdefence, Improvised Explosive Devices (IEDs), sea, air and land issues.

Most often, even when accredited by NATO or the EU, these centres remain national or multinational and not under NATO command. Instead, they remain under national control and could be used to coordinate what is otherwise not being done.

In the same vein, we wanted to test what is happening in terms of the doctrine emerging from UN resolutions for the protection of civilians and children during operations. We wanted to try all this out between the EU and NATO, but came up against the difficulty that, if during a NATO exercise, you announce that you are going to invite the EU and the UN, things quickly become complicated.

We considered using "Viking", a major crisis management exercise organised every three years that took place in Sweden, a NATO partner country and a member of the EU. As SACT, I told Sweden to invite NATO, the EU and the UN to participate at high level in the exercise, so they could work together, test crisis management and civilian protection, etc. However, it had to be done at national level. We succeeded in overcoming the obstacles and it worked very well. **As a result, I strongly believe in national initiatives.**

**The issue of standards is also very important.**

EU and NATO standards are complementary. The EU will develop standards, for transport for example, such as the Single European Sky (SES), while NATO develops operational standards. There is no point in duplicating them. NATO, for example, has developed the "Federated Mission Networking" (FMN) standard, which is designed to make use of systems, all of which remain sovereign. The standard does not impose set blueprints or systems, but enables interconnection, in that it constitutes a host structure. The principle has been turned "inside out" by comparison with past practice. Systems remain under national control, and the signal and protocol between the "transmitter" and the "receiver" will be translated at the interface, at "plug" level. For this FMN standard, it is the ACT, and even a DGA employee in Norfolk, who "wields the pen". Even the Americans themselves have committed to including their standard in this FMN which is being developed iteratively, and is open and "universal". The ACT invited the EU to join in, and the EU agreed. New Zealand, which a member of neither the EU nor NATO, has also rallied the cause.

Taking weapons across borders is also a real issue as it makes responsiveness more difficult. This is an area where the EU-NATO duo can work together to achieve progress, simplify and foster greater flexibility.

**A word on the subject of interoperability, which involves two aspects:**

- technical,
- human.

We need systems that can talk to each other, compatible ammunition and fuels.

We need doctrines and procedures that enable us to work together.

Tomorrow’s systems will be more autonomous and, if equipped with artificial intelligence (AI), will be able to make a number of decisions.

**Interoperability will become essentially political:** the EU-NATO duo will need to communicate better with each other.

The EU will have to define and clarify its own values and ethics in order to know how and be able to talk appropriately to the Americans. Technical and human standards can never be
enough to enable professionals to work together, which is why we have to make the effort to ensure that Member States share the same political and moral principles. Thank you for listening.

QUESTIONS/ANSWERS

[Q01] What are your views on the concept of European defence?

[Q02] For those who were still in doubt about the value of having a supreme command structure in an organisation like NATO, you have just demonstrated the need for a commander worthy of the name’s role, position and strengths on the political and military chessboard. We can only hope that France duly appreciates the value of this post and pays proper attention to how it can turn it into an advantage.

My question relates to today’s threats and so-called “hybrid strategies”, through which we are moving into new dimensions, digital in particular. NATO is a player in this area, notably with regard to cyber defence. What do you think about this?

[DM] European Army: Once again, what are the ends, ways and means?

The end cannot be to “create a European army”. It is here that I can see a major difference between the two organisations. NATO is based on the Washington Treaty and is regularly updated via officialisation of “strategic concepts”, the last such document dating back to 2010. Some of the assumptions that prevailed when it was drafted are no longer valid today, but the overall concept is still applicable. Moreover, every 4 years, NATO sets a political goal: “As a group of 29 Member States, this is what we want to be able to achieve together politically”. For the EU, there is no such political will with regard to defence.

In NATO, with this clearly defined common political objective, strategic commanders can take direct action when translating political directives into military needs.

The EU’s capability process is progressing slowly, but at this stage, it is incapable of conversion into real military needs. Thus, assumptions must be made, resulting in a catalogue of generic forces.

Before considering a European army, we need to ask ourselves whether we really want to agree on a political framework.

It is important to start with reasonable, reachable goals, small external operations enabling us to demonstrate our ability to manage an entire mission within the EU, without being forced to rely on NATO to supply the missing building blocks. Could a Barkhane-style operation be conducted from start to finish at European level?

The EU can develop its own planning and leadership capabilities. Admittedly, as it was said during the Warsaw Summit, there should be “no duplication of command systems”. However, and without being initially over-ambitious, we must try to move forward, step by step, before talking about an army and European defence.

We also must develop capabilities at the top of the spectrum. Although, via NATO processes, European nations may be asked to do this, in practice it is proving hard to go beyond mere intentions.

For that matter, some European countries are content with the influence exerted by the Americans within NATO.

The first step has to be a political framework. We have to envisage a 21st century army, and not simply line up a series of armed forces on paper, especially if these respond to 20th century concepts.

The EU and NATO are working together in dual harness on cyber defence which is essential. But more broadly, we must also make allowance for everything I would call the media environment, influence, electronic war, etc. We should not think in cyber defence terms alone in the strict sense of the term, as the threats are much more extensive than this.

Cyberspace, information and the environment are all areas with the potential for confrontation. Are we at peace or at war? The answer to this question may or may not pave the way for new developments, including exceptional capabilities to respond to the associated threats. In practice, these are areas where we are not at peace, perhaps sometimes at war, but in at all events, in a state of permanent crisis, at times even with our allies.

The Russians have a very good command of everything that constitutes the media environment and all the messages that can be transmitted to “telecommand” the many channels for disseminating information.

As for us, we were slow to put tools in place. A start-up in Silicon Valley has developed a system for tracking people’s movements using open sources, particularly through facial recognition. This system is only in use for civilian applications, while we in the military sector have no access to such techniques.

The Americans started with civilian products. NATO has put its money on succeeding without going through channels that cost millions and take years. The instrument launched by the ACT was presented during the demonstration in November. I am not sure whether the EU has something similar, but this is an area where we would benefit from working together.

- This implies “big data” and “artificial intelligence”
- In the future, it will form the basis for hybrid wars

[Q3] Thank you, General, for this brilliant presentation of our two organisations: raison d’être, missions and prospects that should form the nucleus of our common destiny. My question resonates with our current situation, and highlights the power of social networks and their disruptive effects. How can we, in your opinion, be “smarter” than social networks with regard to our capacity to think and act, our means and methods?

[DM] Social networks: we need to acquire the equipment needed to use them, and also use them ourselves. One of the first areas in which we need to make better use of them is in the recruitment of young blood and somewhat specialised skills. There are some highly sophisticated platforms, such as LinkedIn, which, against payment of course, are able to target skills. There are some highly sophisticated platforms, such as LinkedIn, which, against payment of course, are able to target profiles very cleverly by multiple cross-referencing in highly populated databases.

It is also essential to have a clear understanding of what “digital continuity” really means. Many people often tend to oversimplify, mix up notions or take shortcuts. So, what actually is digital continuity?

- Who has the data?
Who stores it?
Who uses it?
Who creates the algorithms?
Who distributes them?

There are many stages and protagonists, but also a tendency put everything in the same bag, and there are risks and opportunities. It would not make sense years later to duplicate what already exists, but it is important to see where our gems and our talents lie in order slot into this “digital continuity” at the right place, and to have the ability to promote and defend what must be promoted and defended, with the proper degree of understanding to enable effective action.

American and British: The British are now much more aggressive within NATO. They have managed to seize a large number of key positions. At the EU, the situation is brutal in typically British fashion, with comrades-in-arms being made redundant when they could have hoped for brilliant careers.

The British have grabbed the posts of Deputy Chairman of the Military Committee and Assistant Secretary General of NATO’s Defence Planning Programme (DPP) for political issues.

What about the relationship with the Americans?

As things stand today, we have to make a real distinction between two aspects: the relationship with the US President and the rest. The President is “complicated” and “unpredictable”, so to evaluate relationships with “the Americans”, we will probably have to wait a while and see how things pan out.

The full Q&A is available in French here.