Dassault Aviation
2018 Annual Results

28th February 2019
So, last December, after getting more information about the engine development status, I had no choice but to stop the 5X development and to look for the best possible alternative engine. We have selected the Pratt & Whitney 812D engine, which was the closest match, and defined an aircraft that could take benefit from this more powerful engine in a very short time. This results in an aircraft slightly bigger than the 5X, offering more range, and a longer passengers’ cabin, and retaining the same wing aerodynamic shape which proved very efficient during our short flight test programme with the 5X. In short, you will discover an aircraft which is the optimum combination of advanced technologies, not for the sake of technology, but for mission capability, for comfort, reliability, and above all, for safety. So, ladies and gentlemen, it is now time for me, and for you, to discover this new, and roomiest, and most advanced twinjet in the long-range market. We will call it the Falcon 6X.

Voiceover: *Imagination is the raw material of innovation. Fired by passion, fuelled by dedication, guided by experience. Details are combined, designs unfold, and perfection is pursued. A new paradigm is born, takes off, and points the way to something wider, taller, smarter. The Falcon 6X, it’s a class all its own.*

2018 HIGHLIGHTS

So, after this short film showing you all the activities in 2018 and the beginning of 2019, I’m going to summarise and give you the figures for 2018. So, the three major highlights, apart from Serge Dassault’s demise, is the launching, a year ago, of the 6X, the signature of the 5X with an amicable agreement with Safran, the additional order from Qatar of twelve additional Rafales, and the awarding of the F4 contract, and we’ve just seen the ceremony with the minister of defence.

2018 ACTIVITIES AND PROGRAMMES

CONTEXT

The environmental context, so, we are continuing to work in an unstable environment. There’s a will to build Europe, but you know the difficulties in this construction, especially for the construction of the European defence, we have an environment with a new law, programme law, which has just begun in 2019, but the uncertainties remain. Whether it’s in terms of geopolitics, which you all know about that better than I do, there are also economic uncertainties, because we are talking about uncertainties in terms of global growth with all the risks inherent to this non-progressive growth.

RAFALE FRANCE

We delivered, in 2018, three Rafales to France, which were the three aircraft that we had taken to deliver each shift faster. So, 152 is the number of Rafales delivered to France. The fourth tranche, the second part of the 28 Rafales to be delivered out of the 180 ordered will be done in the following years, from 2022 onwards. The qualification of the F3R standard, which was delivered to France in 2018, and the F4, will take over for the additional developments, which also delivered the last two Rafale Navy, Rafale Marine retrofitted to the F3 standard. So, these were the last two delivered in
2018, the awarding of the F4 standard, which was done at the beginning of the year, and this reasserts the fact that we want to keep developing the Rafale, especially in terms of its connectivity, because armies need a lot of connectivity. So, as an industrial architect we have added these new connectivities, these new possibilities that were highly desired, while preserving the integrity of the plane in terms of safety. New capacity in terms of armament configuration which will give a certain number of additional features to the Rafale.

**FRENCH DEFENCE PROCUREMENT LAW (2019-2025)**

So, we have this new defence procurement law, 2019-2025. Dassault Aviation has an additional batch of 30 Rafales that was reasserted by the minister, the order will be awarded in 2023. The launching of the European MALE, the drone programme, under leadership of Airbus but with the Italians, the Germans, the Spanish and the French. Dassault and Leonardo will contribute to this dossier, the choice by the ministry of the armed forces of the Falcon platform, this was recalled in the film, an electronic warfare capacity. So, and a study has been launched, and by 2019, we will receive a contract, by 2019, we’ll have to deliver and upgrade the ATL2. So, eighteen ATL2s will be upgraded, whereas initially fifteen had been planned. The renewal of the MARitime SURveillance fleet, which we are following very closely, and we will promote this based on the Falcon 2000, and the confirmation of the airborne component upgrade, and we won’t talk much about that today.

**RAFALE EGYPT AND QATAR**

Rafale Egypt will deliver nine extra aircraft, so, we’ll have 23 delivered to Egypt, one still has to be delivered. We have pursued the support of the Egyptian fleets in Egypt with some retrofitting that was done so that Egyptian aircraft might reach the standards that have been developed since Qatar. The first aircraft was delivered in 2019, so none were delivered in 2018. You have the nine plus three, that is twelve for 2018. We are going to begin this delivery to Qatar, 36 aircraft have to be delivered to Qatar.

**RAFALE INDIA**

So, India, there are 36 aircraft orders, so the deliveries will begin in 2019. We are working with the Indian defence to prepare this delivery, which will be carried out in the middle of the year. So, we’ve pursued our efforts for promotion, you know that we have given an offer for Rafale for the Indian Navy, for the Indian combat aircrafts, and there’s an offer for an additional 119 aircraft. So, we’re going to wait for the end of the elections before we talk about these future topics.

**MAKE IN INDIA: SET UP OF AN INDUSTRIAL CHAIN IN INDIA**

So, we are progressing with the make in India, you’ve seen a few pictures, we’ve begun the manufacturing of a few parts, a few parts of the Falcon 2000 based in a hangar that was built a year ago. We are building a new, larger hangar to welcome the future manufacturing of the Falcon 2000. We’ve also already delivered a few parts, this was also showed in the film, the T3 tank, the entire front section of the Falcon 2000, that has just been delivered by DRAL to Dassault Aviation. So, all this was done in record time, locally, with Indian teams that we’ve recruited and a local Indian manager who has, of course, assisted with Dassault Aviation teams.

**MIRAGE 2000**

We are continuing to do the upgrades on the 2000D, and, as was said in the film already, we wanted to salute the retirement of Mirage 2000N, which was the spearhead of deterrence, airborne...
deterrence, and was replaced by the Rafale. We’re continuing our talks with the United Arab Emirates in terms of additional upgrades to their Mirage 2000-9 fleet.

nEUROn

The nEUROn, we are pursuing a new flight test campaign dedicated to stealthiness demonstration. This is with the French defence procurement agency, the French Air Force, and the French Navy. We want to pursue our drone roadmap, and we have discontinued the work we were doing with our British Friends.

FUTUR COMBAT AIR SYSTEM (FCAS)

Regarding the Futur Combat Air System, a lot of media coverage was given to that. Heads of state have talked about it, and so on. There’s been a reasserted political intent by the minister of defence and the assertion that Dassault wants, of course, to cooperate, to meet the needs of the two defence ministries, with the first contract that was entered into at the start of 2019 for the FCAS initial studies, and we’re now working on the first contract for demonstrators. That should be announced at the Paris air show this year.

SPACE PROGRAMMES

Space programmes, we’re still interested in taking part in a certain number of studies in the arena of space. There was renewed interest by the ministry of defence in these matters. We don’t want to compete with those who are making satellites or launches or anything like that, we just want to be interested in what could be flying objects in space, and in particular we’re working with the ESA on the Space Rider programme. We’re also pursuing our upgrading in pyrotechnics, because you know the Rafale uses pyrotechnics for the ejection of seats and so on. So, it’s important for us to work on pyrotechnics, and digital pyrotechnics, Pyrodigital. That is so.

MARITIME SURVEILLANCE

Regarding MARitime SURveillance, Japan has pursued its acquisition of Falcon 2000 for MARitime SURveillance, and in 2019, we will be delivering the first aeroplanes. There were five that were ordered for our Japanese friends, the coastguards. In France, apart from the CMR [inaudible 25:30] programme that will require us to propose MARitime SURveillance Falcon 2000, but we have pursued work on Falcon 50s, the current ones, with, in particular, an aeroplane that has an additional dropping capacity of search and rescue chains that was done last year.

FALCON 6X

Falcon 6X, this programme is developing quite in line with the schedule, which should lead up to deliveries of Falcon 6Xs by 2022. As you know we are monitoring the Pratt & Whitney engine adaptations, we have a team working there, and everything is on time there. There are four engines already being tested, we’ve 120 hours that have been run on the flying test bench with our friends in Pratt & Whitney, so basically this programme is quite on time, and all the contracts with the subcontractors have been totally entered into in 2018 already.

FALCON IN SERVICE

Then Falcons in service, we’re pursuing the improvement of the in-service Falcons with certain development work being done. FalconEye, you heard about that before, we’re pursuing the
improvement of its functionalities. We want to get certification for use of it up to 100ft, and that will be an improvement for pilots in poor weather conditions or in night time conditions. Also, the Falcon Connect launch, this is an integrated management solution to facilitate the in-flight use of connected devices, tablets, telephones, emails, and so on, on board. So, we have a full service offering for our clients using an architecture that we’ve developed, that we called Falcon Connect, in particular the Ka band that gives us high-speed connectivity for aircraft in service. Then Falcon 8X, we’ll be pursuing here a certain number of efforts. We have done Singapore London in 2018 already, it wasn’t easy, fourteen hours. Long range has been demonstrated, and it took fourteen hours, and the conditions weren’t great, but it was quite a performance. Then we also find that our clients, our new clients like it, the ones that are using it already, the cabin comfort, it’s very much appreciated by new clients in particular.

FALCON FAMILY

Then Falcon family, the Falcon range, you have that here in the pictures being expanded. The 6X is part of our catalogue, of course, sales have already started for that particular aircraft.

FUTURE FALCON

As for the future of Falcons, once again I’d like to tell you that we are pursuing our studies, not only our marketing studies but also our technical studies, so the technical platform is ongoing, but I’m not going to give you any features here at this press conference.

FALCON CUSTOMER SERVICE

Customer service, we’re very proud for having obtained a certain number of awards for customer service, and especially a first ranking for our overall score for our customer support, and some victories in a certain number of domains in terms of the quality of our response for AOGs, warranties, etc., and Falcon support is at a very high level. That’s one of the priorities we had set in order to satisfy our clients. The service response, which is a service we had launched a few years ago, is doing very well, it is highly appreciated by our clients. When there’s a problem, they can operate, they can immediately go and repair the aircraft, or they can help the clients pursue their mission, people who are stuck at the other end of the world, and here you see it has operated several times with some 1,400 flight hours.

SERVICE CENTRES STRATEGY

Service centre strategy, as you have seen, we announced it twice, once a few weeks ago, the acquisition of the ExecuJet, and yesterday we announced the acquisition of the [inaudible 29:39] of TAG Aviation. The objective is to strengthen our service stations so as to improve our offer, our support.

FALCON CUSTOMER SUPPORT: ACQUISITION OF EXECUJET’S AND TAG AVIATION’S MAINTENANCE ACTIVITIES

So, here you have a map, the blue dots, this is what already existed, and you have the new yellow dots. With ExecuJet, you see that we’re going to be operating from support centres that belong to us towards the East, especially in Asia and in Africa, and the acquisition of TAG will allow us to strengthen our position in Europe, which is a highly operational place for business aircraft, and especially in Geneva.
TRANSFORMATION PLAN (1/2) DIGITAL TRANSFORMATION

Our transformation plan, I’m not going to go back on it, we want to recruit, hire more people. We’re looking at the casting of the company for the future. One of the specificities, which is well-known at Dassault for years now, is the digital. Therefore, we are strengthening our partnership with our friends from Dassault Systèmes, especially with the implementation of the 3DExperience that will allow us not only to prepare the programmes of the future but also to uniformise all our programmes based on this new, more powerful and more collaborative platform. So, therefore we’ll be able to set up an extensive study, design office, and we’ll be able to take into account, all our projects will have high-performance aircraft easy to manufacture, easy to support, and it’ll cost less for future support. So, therefore, we’ll improve the competitiveness of our offer.

The second topic with Dassault Systèmes and this strategic partnership, these are the data. This is what we call big data, we have a lot more data, and therefore we have to extract from the data all the relevant data that will allow us, first, to propose new services to our clients, whether it’s in the civilian or military areas. We are discussing about the future, Rafale care, with the help of the state, we’re also discussing with our clients on how we can improve our services in the framework of Falcon care.

So, this big data is fundamental so that we can provide these new services. It’s also useful in-house, in Dassault, with our subcontractors, so we can better understand a certain number of difficulties that we can perceive during development, or when we put our fleets in service. So, therefore we need to improve the company on an ongoing basis, and it is a must, because we have to protect ourselves. Data, as you know, is something very important. We need to protect our data, and so therefore we are developing architectures so as to prepare for the future. So, Dassault Systèmes and Dassault Aviation are working hand-in-hand in this strategy, and there aren’t many companies in the world, believe me, who can deal with such problems, and in France even less so. Decision to have recourse to an improvement in production, so, therefore, we’re going to improve with SAP and with SAPRISO, with SAPRISO from Dassault Systèmes we’re going to improve the life of our teams and connect them directly to the company in digital terms.

TRANSFORMATION PLAN (2/2) LOCATIONS

So, the transformation plan covers all our plans, of course, so I’m not going to go around France, nor around the world. We’re improving, we’re specialising our production sites, and this triggers off a certain number of changes in our teams, they will have to move from one site to another, it isn’t done massively, but it will happen. For example, the primary parts, we will do it at Seclin and Argenteuil. Now, everything is in Seclin, in the North of France. You know Seclin? It’s close to Lille. So, the metallic parts will be mainly at Seclin. Pyrotechnics, we were at Argenteuil, and in the Paris region, pyrotechnics is not the adapted site for that, so instead of upgrading in an environment that is constrained by the environmental standards, we have decided to go to Martignas. We had a site that had been created for pyrotechnics at first, and now it has become a site for our military and civil wingspans. So, this is an adaptation that should allow us to be more efficient, and to keep our strategic lines, and to be able to subcontract when the lines are less strategic. Now, just a few words before you ask me questions on Argenteuil, we had the choice to either preserve Argenteuil or not, but, you see, some of the activities have been deployed onto other sites, to specialise, so we needed fewer square metres. So, either we modernise Argenteuil, or we find another site.

So, actually, after a year of study, we found a land that we really liked, at Cergy, and the modernisation that we could plan at Argenteuil was not effective. So, we decided to change sites, so we’ve taken a purely industrial decision, and now we’re going to Cergy for a small plant, which will be smaller than the one in Argenteuil, and it will preserve its capacity for the T12 to redesign the
Rafale, and this is what is done currently at Argenteuil. Cergy, Argenteuil, they’re not very far away from each other, it will not really disturb the employees who were initially working in Argenteuil.

CORPORATE RESPONSIBILITY

As for corporate social responsibility, we have done better in the environmental sector, because we’re trying to reduce our environmental footprint, and of course we want to reduce the consumption of gas which was carried out, we measure each and every year, we recover a lot of our waste. So, in all our plants, we are particularly careful to take care of the environment. So, societal, you see it in the film, but it is true in a historical way at Dassault, we are very careful about our SMEs and ETIs, because that is our life force. They manufacture our aircraft. We pay our taxes in France, in the current context it’s good to say so. So, we pay all our taxes, 93%, that is €178 million of tax expenses are paid in France. Here we have not integrated the corporate taxes. We cooperate with the academic community, education is very important for us. We have a great number of apprentices, we are taking part in apprenticeship centres, for example, in the aero-campus and [inaudible 36:41], we have improved our ethical charter, and we have ethical conduct to meet the Sapin II and the vigilance plans. From the social point of view, so our profit sharing and incentive schemes are very important, when we include the social tax it’s some €168 million, that is almost the same level as our tax. From the social point of view, an annual salary is €57,000, and if you take the lowest salary, it is €33,000, so it’s the lowest salary at Dassault Aviation, it is twice the minimum wage. So, in terms of purchasing power, Dassault is a very good company.

We’re continuing hiring new people, since we are improving our business, we are hiring new people. We’ve hired 856 people in 2018, and we have a strong policy to recruit more women. It starts in schools, it’s from the schools that we will have more women, but it’s not easy, because there are not many women who are tempted into working in technical areas. So, there will be a greater awareness in schools, and they will reach all levels of the company in this way, and we have signed agreements to recruit more disabled workers.

2018 RESULTS DASSAULT AVIATION GROUP

Now I’m going to go on straight to our results.

ORDER INTAKE, DELIVERIES AND BACKLOG (IN UNITS)

First of all, the order intake. We sold 52 Falcons in 2018, compared with 41 in 2017, and if we take out the 5Xs that were cancelled, ten that were cancelled in 2018, it gives us a figure of 42. Now, the ten 5Xs in here are the last 5Xs, there are no other ones in the backlog. Deliveries of Falcons, we delivered 41 Falcons. You’ll recall that the guidance we gave was 40, so in 2017 there were a few more. We brought down the pace a little bit given the market, the way it was, two or three years ago it was down. Then the backlog is now at 53, so [inaudible 38:59] a little bit positive, compared to the Falcon, compared with 52 at the end of 2017. Rafale, the order intake for the twelve Qatari Rafales, additional ones, we see here, we delivered twelve aeroplanes, nine for Egypt and three for France, and the backlog remains with 101 Rafales to be delivered.

ORDER INTAKE, NET SALES AND BACKLOG (IN €BN- 2017 IFRS 15 PRO FORMA)

Now, figures, the order intake is at €5 billion, that’s a strong increase compared with 2017. Sales going up €5.1 billion, compared with €4.9 billion the previous year, with a bit less in terms of Falcons, as you’ve seen, but the same number of Rafales, and with the F30 [inaudible 39:43] for France that was delivered, that went up substantially, and brings up the French sales figure. The backlog,
levelling off at €19.4 billion, compared with €19.5 billion the previous year, with obviously a lot that is export Rafales to be delivered in the coming number of years.

**SELF-FUNDED R&D (IN € MILLION AND IN % OF NET SALES)**

Then R&D, self-funded R&D, strong increase in 2018, that was planned, it was foreseeable, 6X mainly, going up here, because we picked up the work on that in a strong way in 2018, so that will further increase next year, well, I mean this year, 2019. So, 6X will continue ramping up, but also we will have the new Falcon that we’ll have to really start off with, so the self-funding effort will go up. Now, you’ve seen the chart here, that if you look at it over several years, we have about 10% of sales, net sales, on average, 10% of net sales, 7.7% of net sales, €392 million.

**THALES**

So, Thales, they’ve published their figures yesterday. Good performance there, a net increase in their profitability, so the adjusted net margin, 7.4% for 2018, and we have to add the net of Dassault Aviation to this, to the tune of our stake in Thales.

**GROUP ADJUSTED INCOME STATEMENT**

So, the net sales of 2018 going up €5 billion and €84 million. The operating income €669 million, compared to €357 million the previous year. So, there, again, it’s markedly up, that reflects, that is 13.2% in operating margin compared with the figure for the previous year you have here, then you have financial income, -€77 million, Thales and other equity affiliates, you see the figure here. Taxes, €205 million, with a minus, that’s net income, €681 million, a net margin of 13.4%, compared with €410 million the previous year. I will just note that in these figures we’ve integrated the Safran compensation for the termination of the Silvercrest engine contract. We communicated on this in September, it was actually $280 million, that’s €241 million, and there is an impact in terms of profit sharing and incentives on our earnings. I put into the note here that if we had done these computations without the Safran compensation, which is a one-off, really, well, we would have had, then an operating income of 9.2% instead of 13.2%, and a net income of 10.8% instead of 13.4%.

**AVAILABLE CASH**

The cash position has got better, as you see, €5.2 billion, thanks to the progress payments of the export Rafales, the downpayments from Qatar, for example, and other intermediate progress payments that were paid by Qatar and India. So, basically, this figure will go down, then, because you’ve got to make the aeroplanes, you know, we’ve got Egypt, we’re fully delivered, give or take one aeroplane now. So, this cash position, of course, is made up of, you know, the fact that we’ve got to make aeroplanes.

**DIVIDENDS**

So, the dividends. The dividends, the proposal is the same pay out, 26%. So, €21.2 per share would be the dividend, that’ll be put to the shareholders’ meeting that will take place on 16th May 2019. So, that would give us a figure of €177 million for 2018, as opposed to €127 million for 2017. Now, the profit sharing and incentive schemes for the employees’, €168 million if you include the correlated social flat rate tax, and I mentioned the taxes earlier too, 278, so we won’t talk about three-thirds anymore, it’s four-quarters we’ve got to talk about these days, in this kind of thing. We’ll probably give to the shareholder, it’s €177 million, as you saw. The earnings, I mean, of our employees, their
pay, €168 million, and the taxes to this date, we pay our taxes in France, €178 million, and the rest of the earnings we keep to fuel the development of the company.

2019 OUTLOOK AND STRATEGY

So, the outlook and strategy for 2019, we have a fairly full programme ahead of us for 2019, the pursuit of the sales and the bolstering of our sales for Falcon, and I hope also for Rafale. We are pursuing the initial FCS studies, this is major for the future, of course, we’ve got to pursue our cooperation here, especially with Germany and our Airbus partner, and all of the companies that contribute to combat aircraft and combat systems on either side of the Rhine. Then continuing the Falcon 6X development work, so as to hopefully stick to the schedule, and then confirm the future Falcon launch, future Falcon, that’ll be really operational in 2019, then the start of the F4 work that’s been notified to us. A very ambitious standard here, F4, especially in terms of the connectivity architectures. We’ve got to perform the Falcon and Rafale contracts, deliver the Falcons on time, as planned, and so on. Participate in the response to the invitation to tender for a contract launching the MALE RPAS programme that should take place this year. Continue work on preparing the Falcon MARitime SURveillance CUGE order with France, deliver the ATL upgrade, and finalise the new Rafale France maintenance in operational conditions contract, and also do even better in Falcons, thanks to the development of our new strategy of service centres.

Try also to make the most of our know-how in the space domain, and continue to implement the transformation plan that will help us to prepare for the future and keep us competitive. The objective, the guidance for 2019, you see, is to deliver 45 Falcons, our guidance a year ago was 40, so it’s a slight progression, which is a slight increase in the market reflected there, but we remain prudent. 26 Rafales for export contracts, that would give us a significant rise in the net sales for 2019, and we will now be happy to take any questions you may have.
QUESTIONS AND ANSWERS

**Emmanuel Huberdeau (Air & Cosmos):** Good morning, Air & Cosmos, two questions on the future. As for the FCAS, what will be the key technologies for the MGAF, and as for the combat drones, do you expect to market an operational UCAV in the future in continuity with the nEUROn?

**Éric Trappier (Dassault Aviation):** For the MGAF, this is the beginning, so it’s important to analyse our operational needs first. So, that is the work of the chiefs of staff on each side of the Rhine river. What we observe when we look more closely at what’s happening all around the world is that there is progress made in the solar system, especially the Russian systems, and this will, from a certain number of countries, to band their territories by strengthening this defence. So, that’s the first point, we’ll have to have a better performance to go through any defences, the solar defences, and all around the world we see that some countries are putting money in the development of combat air fighters, and the one that will have the air superiority will be able to carry out raids to be able to deal with certain objectives. So, air superiority, which is often dominated by the Americans. They have the number of aircraft, they have specialised aircraft, etc., and in a certain number of countries, it is the development priority, not to name them. The Russians and the Chinese are continuing their efforts to develop air combat aircraft. So, this threat is an important threat when you want to dominate the sky. So, in terms of technology, manoeuvrability will remain important. The capacity, we should be able to take enough load, and we should be able to win, also, and it won’t be the case if you are seen immediately by the radars. So, stealth, that we’ve set up in the framework of the drone nEUROn will be useful in the future.

Connectivity, the connectivity architectures, because the aircraft doesn’t work on its own, you need several aircraft. It can work with drones, it can work with information that is acquired by surveillance drones, acquired by all kinds of means, so connectivity will also be a central point. So, these are some of the technologies we’re working on. We are already, with the nEUROn, working on stealth, with the Rafale F4 we’ll be working on connectivity, with new connectivity architectures, and so therefore it is these technologies that we will have to develop. You’ve seen the silhouette of the aircraft. It’s an aircraft that will be potentially larger than the Rafale so that it can have a better range, and, if I have properly understood the operational teams, all this will be able to land on an aircraft carrier. So, these are our ambitions. We have some very strong ambitions and this is why we are going to develop a demonstrator because before having a full development, it would be interesting to see how technology can be implemented in a concrete way for an aircraft company. That is very important. The second point, the combat drones, for the moment, the chiefs of staff have decided to have an aircraft with a pilot but, of course, we’ll be working with five other European partners on the nEUROn. We’ve worked with the British on a UCAP demonstrator and it didn’t lead to any full development contracts but we’re ready.

The nEUROn is flying and we’re ready to provide our knowhow in the field of unmanned aircraft, and you know that there is a [inaudible 51:20] called the small drones that would fly around the aircraft, the fighter aircraft, which are developed by Airbus, and we’re also studying that possibility.

**Thierry Dubois (Aviation Week):** A question on the acquisition of the maintenance activities of ExecuJet and TAG. Could you tell us a bit more about that strategy? Are you going to make another such acquisition, and what would be the amount of the investment already made in those two acquisitions please?
Éric Trappier (Dassault Aviation): Well, we won’t publish the amount of those acquisitions. They’re not huge deals either, it’s not billions but secondly our strategy is to be able to have a global footprint for our service centres and service centres are places where you entrust your airplane for maintenance and so on to people who will take care of it. We’d like to set up a label and say it’s wholly owned by us. It’s our teams integrated with the teams of the companies we purchase to be certain that we offer quality of service, vis-à-vis our customers, and especially to have an operational network around the world, a worldwide network. Airplanes are made to fly so they fly all over the world and clients can be in different parts of the world, so vis-à-vis them, we would like to provide them with direct support on the spot, wherever they may be, so as to provide all of the requisite service around the world to clients who may need to service their aircraft. You know, a service of our own. So, you’ve seen the map. We are moving towards Asia quite a lot. ExecuJet has given us possibilities there. We’ve bolstered our efforts in Europe thanks to TAG and we’re on the boat so that’s why it’s moving. It’s saying, ‘Don’t worry,’ and so we’ve been, you know, strengthening our support teams too.

This is part and parcel of our ongoing efforts to increase the quality of service we provide and the perception of customers too, in that regard, and also it’s part and parcel of our intent to improve the support of the 2,300 Falcon jets flying around the world.

Michel Polacco (independent): Two questions. The first, the F1 Mirage’s reform by the army, I mean, do you know what will happen to them? The second question, the future of Falcons, can you say a little more about them? Will you extend the range towards the bottom because you’ve totally disappeared from the middle or lower range?

Éric Trappier (Dassault Aviation): Well, as for the very old aircraft, we are dealing with the future clients. We are taking care of our current clients. Once the aircraft was removed from service, from these armies, well, it is not our job anymore. We contribute to recycling chains to recycle these aircraft. We can recycle them. I’m not a great fan of selling aircraft that are already quite old to private companies that will use them. I’ve already said that that was not our job, and our responsibility, as an aviation company, cannot be in that type of activity, and combat aircraft is for military reasons, that it exists, and we can’t use it for something else. It’s made for combat and not to transport passengers. I know that some companies have squadron aggressors, as we call them. They use that in the United States. They do it under their own responsibility and we’re not engaged in this type of operation. Now, for the Falcon range, we’ve decided, for a long time now, that the lower range would be 4,000 nautical miles, so that would be the Falcon 2000LX. It would be slightly less with the Falcon 2000EX, 3,300 nautical miles, but that is where we have our entry range for Dassault Aviation. Underneath is not really our domain. It was in the past with the Falcon 10 and 20. I’m not saying that we cannot make aircraft of that size. We can but we have to do it at the right price. We should be able to sell it, etc. So, we can’t be everywhere.

We have prioritised our efforts on this range of 6,000 nautical mile aircraft, the 7X and 8X, and now we are strengthening our range in the 5,000 nautical miles. We’ve gone from the 5,000 to 5,500 NMs with the new engines and this is where we reach. We are thinking about the future but we will let you know very soon where we will focus on in the future. I’m sorry, there’s a question made off mic. The answer is I don’t think so and, in any case, it wasn’t done.

Reuters: Hello. I’m from Reuters news agency. I’m just wondering about the German government. They’ve adopted a firm stance on exports of weapons, especially to Saudi Arabia, that created problems with the British on the Typhoon. Now, does that lead you to have particular thoughts on this. Are you concerned about the FCAS and where it’s going? Have you an agreement on the exportability of this kind of air system? What do you think about this?
Éric Trappier (Dassault Aviation): Well, the answer, firstly, exports, that’s the arena of states, not of companies. They’re the ones who make the decisions. We monitor closely, of course, what goes on in terms of export markets. The export of combat aircraft is part of the economic, the business model of a company, of course. We’ve always lived thanks to exports as well, of our Mirages, our Rafales now, so we look very attentively at what goes on there. Rafales are French authorisations and if it’s a cooperation programme, you’ve got to for the authorisation or, you know, there must be rules set down between the states. It’s up to the states to agree on that kind of thing. Now, obviously, if we really launch a Franco-German fighter aircraft, we’re only at the preliminary studies stage, the export rules must be defined as early on as possible, exports must meet the needs. If its Franco-German, Franco-Spanish, whatever, two or three countries might be involved, and the states concerned must agree on the ground rules. The rule of the game was called the Breschmit rule between France and Germany. I think we should be inspired by that, and some people are working on that, and we also have to take account of public opinion in this kind of export adventure, so the governments and the parliaments are the ones who work together so as to come up with answers to your question. For the exporting of Typhoons too, Saudi Arabia, well, you know, you can guess what I think about that.

Karen Finkelstein [inaudible 58:34]: I would like to go into the details on this question put by my colleague. Youssef said we would need to draw inspiration from the Breschmit agreement but for years now, this agreement has been interpreted in different ways on each side of the Rhine river. You also talked about the public opinion that we must take into consideration and the public opinion is going to look at the possibilities of being able to export defence material in countries where they would not really like us to export such materials. So, the public opinion in Germany is more restrictive than the French public, so what ideas do you have to come out of this all, of this complicated situation?

Éric Trappier (Dassault Aviation): Well, I’d like to maintain what I said. It belongs to the states to agree. There are discussions underway. They have been discussing for a while now. I think the discussions are progressing. The two states want to have a strategic autonomy and having a strategic autonomy, that means having an export capacity. We have to take into consideration and the public opinion is going to look at the possibilities of being able to export defence material in countries where they would not really like us to export such materials. So, the public opinion in Germany is more restrictive than the French public, so what ideas do you have to come out of this all, of this complicated situation?

Exane: Good morning, Mr Trappier. I’m from Exane. I have three questions. The first one has to do with the sequencing of the Rafale deliveries. There will be an upswing, 26 aircraft, in 2019, but the backlog hasn’t changed, so I’m just wondering about that. Will we not see a substantial drop then in 2020? Maybe fifteen or sixteen aircraft, or 2021? Is that the right way to look at this? Second question has to do with the comments that you make in your press release on the drivers to improve the margin. In 2018, you mentioned in particular the improvement of the situation on the pre-owned aircraft market now. Has there been a change there? Are you making profits now on the sale of pre-owned aircraft? Has there been a change? The third question has to do with the Falcon, the business jet market in general in North America. Could you give us please your feelings about the
impact? There’s been the tax reform in the US and what’ll be the impact of that? Do you think that the 2020 elections will be a factor for uncertainty, that there might be some change in the megatrends of the market there as a result of that?

Éric Trappier (Dassault Aviation): Well, the Rafale, the guidance is 26, and we’ve anticipated, of course, beforehand, the second part of the sequence on Rafales. So, we’re capable of delivering the 26 airplanes. Apart from the increase in the actual scheduling that we rolled out some time ago already, as soon as we got the third Indian export contract, we started to pace up. So, if you do the sums well, you’ll see that we’ve delivered 23 to Egypt, 96 export aircraft yet to be delivered, 96 minus 26 minus 23, you get the right figures that is remaining to be delivered after 2019, the sum that you will find and you’ll see on the guidance next year. France will take over then, as of 2020, two for the delivery of the 28 aircraft in the fourth batch, and we hope a fifth batch that’ll come in after the delivery of the fourth batch. So, that hasn’t yet been totally, you know, wrapped up in terms of how it’s all going to be sequenced. We are responsive. We can remain at two. We can go up. If there are certain export contracts that come in, we can go up. We can go down a bit if we need to as well. We’re fairly flexible that way. If we need to deliver more or less aircraft, you know, we’re flexible in the company the whole time. We can adjust and we have subcontractors too that are flexible. We can adjust and we can anticipate two or three years ahead of time and that’s what we tend to do the whole time actually.

The next question was about the pre-owned aircraft market. We have actually released all of our stocks, all of our inventories. Sometimes when we sell an airplane, we have a pre-owned aircraft that comes to us that we purchase. Thanks to the improvement of the market in 2018, mainly for pre-owned aircraft, we actually managed to sell off a certain number of pre-owned aircraft. We still have some that we can rent to clients whilst they’re waiting for their new aircraft to come off the production line but we have more or less done away with the inventories we built up in previous years of pre-owned aircraft. Now profitability, it’s a more complicated thing to look into because they were sold at a certain price. You buy them back at a certain price and so on. Then you sell them off again. You know, it’s not a lot of money you make in that kind of activity. So, the third point was to do with-, I’m trying to read my notes. The United States, okay. Yes, of course. Falcons in the US. Yes, the United States, for a start, if you look at their economy, it’s going well, isn’t it? We should have no qualms about that. The tax reform was difficult, you know, the birthing of it was difficult but it’s a good thing for US industry. Not so good for European industry. The taxation rate has gone down 21% plus the original tax, so that’s 23%, let’s say. Compared with France, we’re talking about, well, depending on the years, the coming years too, it’s much more.

It’s a bit more anyway, so good news for the US companies. We’ve availed of some of this thanks to our Little Rock plant. Anyway, stop side tracking on that. So, there’s momentum. There are dynamics in the US. Now, these dynamics were reflected indeed in a market that was more active in the United States on Falcons business jets in general. Now, having said that, we hope this year to have a bit more sales but we do feel that it’s, kind of, levelling off and the uncertainties I was talking about at the start of the press conference are there too. Will there be global growth or not? Will the trade war between the US and China really affect or not global trade? We feel there are uncertainties there and you add a further one, which is the US elections. They are coming up every four years. That’s what happens, so we’re moving towards the next set of elections. I am not certain it’ll have an impact any more than the uncertainties on growth. The strong crises that have led to what we’ve seen in 2008 and 2009, all of that leads people to be prudent, cautious, in terms of investments and so on, including in the US. So, our sales, as I said earlier, we’ve increased the pace of production for Falcons so as to be able to factor in this increase in the market that was visible, perceptible, especially in 2018, but we will remain cautious going forward.
We’re a company that is usually prudent and we haven’t opened the valves to productionise in a hugely increased way. So, we’ll see. We’ll keep on looking at how things evolve month in, month out, in terms of sales.

Unknown speaker: I have two questions. The first, you confirm that you’ve stopped industrial work with the British on the FCAS, which was launched in 2014. Can you tell us about your future prospects with the Rafale export prospects?

Éric Trappier (Dassault Aviation): Yes. With the British, we haven’t completely stopped. We have kept a few communication lines for the small studies but the major project that was to fly a combat drone demonstrator, well, that was stopped. So, I do confirm that it was stopped. It might start again one day. We can never tell about the future. We are trying. It’s a difficult business, but that has been stopped. A few lines have been preserved just to tell ourselves that in the framework of the treaty, Lancaster House, France will keep a certain number of studies in this area. The British wanted to launch a project, not an identical one to what we are doing with the Germans but it arrived just after our announcements between Airbus and Dassault to work together. With the British, there is much happening right now. As for the Rafale prospect, I won’t say much. We are focussing to deliver the aircraft we have already sold. I have already asserted, and said it very loudly and clearly, that for us today, India is a target in the right way. We should take this wording the right way because 36 aircraft, that is just a beginning. There are some major needs in India. Rafale is a very good aircraft. It was chosen by the Indian Air Force. We are trying to be present in India with plants that are being built right now, so we are working to build a long-term relationship with the Indians.

We already have long relations and there’s going to be development of Dassault’s industrial capacity in India, and that’s where the other prospect-, well, we’re working on that. We’ve already announced that we have answered bids in Switzerland. We’re also working with the Finnish. They have said that they wanted to acquire combat aircraft. You know that these topics, I mean, for Finland, it’s highly political, the evaluation of the capacity of the neighbours, and so we’re working hand in hand with these state services, with diplomacy, with the politicians so that we can meet these calls for tender. There are some other possibilities, other prospects we are working on.

Unknown speaker: I’d like to know, please, you know, you’re very optimistic about the FCAS and I’d like to know a bit more about that. The two chiefs of staff, German and French, have met and have put together a whole programme fact sheet. For an outside observer, it looks like a Swiss Army knife, you know, in military aviation, because if I read this document, it says, ‘To come to terms with future challenges, to act autonomously, independently or within a system, to be versatile or flexible in use, to meet all of the mission requirements, air, sea,’ and so on, etc. You know, to be operable and European. Well, to be stealthy obviously and to be navalisable, it says. You can have maritime applications. In the newspapers they say that they are freeing up 65 million over two years with the two countries. If I do the sums properly, you’re going to be able to put into this project immediately four or five engineers. Why are you so optimistic about all this, is my question really?

Éric Trappier (Dassault Aviation): Oh, this is going to be a huge disconnect here in Dassault, a huge breakthrough maybe. No. We’re optimistic. It’s part of our DNA. We’re really optimists here in the Dassault company. On a more serious note, we know, you know, what we’re capable of. What you said, we can do. We’re not presumptuous about this. Rafale does a lot of what you mentioned already, working in the European coalition, working within NATO, does air, air, airs, grand tour, you know, aircraft carriers. We don’t say we can do things if we can’t do them. No. I mean, we don’t say we can do things just because we’re optimistic, we say it because we can do them. So, Rafale can do a lot of those things already and, thanks to the inputs, through the nEUROn programme, with all of
our even small teams working on this, in Dassault, we can do great things with sometimes just small teams. I keep on saying this. This should be studied in the schools of engineering, unlike what the Americans do. They make airplanes with huge numbers of people, and I say a lot, I mean, a lot more than what we use, so basically we cost much less than others in terms of the development work, the effort put in, the efficiency of it all at the end of the day. So, you know, sometimes in France we forget that they don’t do the real benchmarks that you should do.

The Rafale costs less than an F35, for example, and I’m saying this in front of experts here that often mentioned us in this regard. It’s a huge difference, a huge difference, and we can do more because we can do air, air that F35 doesn’t do. F35 has other qualities maybe for the moment, you know, it has lots of problems too. So, we’re optimistic on the basis of our skills, our competencies, and you’ve got to fuel your skills. You’ve got to reskill, upskill. If you don’t roll out a demonstrator quickly, your skills get eroded. That’s why we rolled out the nEUROn demonstrator in 2003. The decision was taken in 2003 with signature development and it’s still flying and it’s teaching us lots of things still, especially in stealthiness and our knowhow with Rafale and also fuelled by our skills as industrial integrator and architect for the whole system. All of that taken together means that we can be leader of the European team. Now, it’s not as easy to do things as a twosome as it was doing things alone, and threesome it’s even more complicated, but it’s indeed a strong ambition, yes. The states want it to be done. We’re at the service of our states. I mean, if the ministry of defence tells us to do it this way, that’s what we do, so if you want to have a chance of succeeding though, you’ve got to be organised. You’ve got to be organised.

That means you’ve got to have strong leadership for France that was appointed leader of this project for the two countries, so we need strong responsibility on the French side and then, at the same time, we’re proposing strong responsibility for industry, and the strong responsibility for industry for the FCAS, in the context of the combat aircraft, it’s Dassault that can shoulder that responsibility.

**Unknown speaker:** I would like to ask a few subsidiary questions if nobody else wants to take the floor. So, three small topics. China. You also mentioned in your announcement that the business jet situation in China was not as good as what was planned. Can you tell us about the drivers, about this slow down? The second topic is on Brexit and, once again, we already talked about the military topics but not really about the civilian topics. The customer base in the UK, what about that market segment? The third topic is the group’s digital transformation and the impact on the future Falcon programme. You explained, as other industrial companies in your sector, that your digital transformation would allow you to develop instruments that will be cheaper to produce. Do you think they’ll be cheaper to develop also?

**Éric Trappier (Dassault Aviation):** So, three major programmes to develop. Very quickly, as for Brexit, it is an industrial issue. It is a political issue, but I’m not going to talk about that because that’s none of my business, but the entire aeronautical sector and the defence department in Europe, as well as our British friends, believe that Brexit is a bad thing for the industrialists on each side of the Channel. So, we are all organising ourselves so that we can face this with all the uncertainties surrounding this mysterious hard Brexit with some problems that are difficult to solve. That is, how will the customs behave? We are not the customs, so will they block? Will they let everybody pass through? Will they receive instructions, etc.? In the aeronautical field, we worked with the European agency for the labelling of the parts manufactured in the UK and assembled on the European aircraft, so the British companies can obtain, at this stage, the clearance to do that, so long as they make a request. So, we’re making sure about that with our suppliers, but that will not suffice. There will be impacts which will go beyond just regulations. There will be standardisation issues in the future, economic issues, which will definitely create a psychological shock, so it will weigh on the economy and on the currencies. Therefore, all kinds of consequences that we cannot predict today.
From the point of view of business aircraft, business jets, the businessmen in London will keep working from London or they will operate from elsewhere and they will still need jets, so I don’t see too many impacts there. There might be some indirect impacts because of the economic consequences because if the economy doesn’t do that well, the business jet market will not do that well either, so that’s what we can fear. The other two topics, China, yes, a small disappointment in China. When I say small, this is proportional to what we expected from a great country like China. They are developing, developing very strongly economically, but they’re not calling on business jets at this stage. They still have to work on upgrading their airports, the air traffic. [inaudible 01:19:16] I believe in that we have strengthened our capacity to support our aircraft in China, so we are getting ready for that but we have to be very patient before we see any development of business jets in China. Asia, excluding China, is developing quite significantly, so we are in Asia, we’re not only in China in Asia, and it is developing. China will arrive but you know the problems we have with China right now. This is inherent to the Chinese system, so this sector is still limited, although we have some 50 Falcons flying in China. That isn’t what we were expecting but we are pursuing our efforts. We are not demoralised about the Chinese market. We are patient. You see, with the Rafale, we’ve managed to sell it so we will probably end up having a lot of aircraft in China.

The third point, the digital, yes. Well, of course, we are investing in our digital tools because, in any case, we don’t have the choice. It’s as simple as that. Who will not be digital tomorrow will disappear, whether we like it or not, so we had better like it, and we will do it so that we can win in terms of productivity, so that we can do better in the manufacturing of our aircraft. Development, it’s not a problem. Development engineers, I mean, that’s not Dassault’s problem to reduce its development costs. I was saying it earlier on. With small teams, we are already very efficient in the sector, so we will try to reduce the cycles and the digital can help us do that. If we reduce our cycles, we’ll reduce our development costs but the objective number one is to improve performance, quality and cost to cut the costs of our aircraft under production. It’s not just Dassault. It’s Dassault and our supply chain. We depend on our supply chains, and we will have continuity in our company with our external partners, and this is why we’re very happy to have Dassault Systèmes that is helping us with our tools and with our partners, our subcontractors, in the future combat aircraft, etc., Airbus, etc. That is absolutely fundamental. So, yes, we’re doing it with this ambition to do better in the future in all the areas you’ve mentioned.

Unknown speaker: If 57 marine Rafales were to be sold to India, would it include two-seater marine Rafales?

Éric Trappier (Dassault Aviation): Well, that’s a long-standing debate for the French navy. For fleets that are so small, the usefulness of a two-seater is up to the client to decide. We developed a single-seater Rafale. We could do a two-seater. I mean, yes, it’s possible. It’s on our drawing board, so to speak, but we could supply, if needed. It might cost a bit more. It would cost a bit more because, you know-, but people haven’t looked really for much and the training is on the ground and, you know, at the end of the day, it’s the pilot, vis-à-vis the aircraft carrier, he’s the only one in the airplane usually. Regarding the missions, well, the French navy, in any case, hasn’t utilised this kind of resource. It wasn’t an operational two-seater or a training two-seater for the Indian navy. We’re pursuing our offering on the basis of the single-seater marine ones like we have in France, the Rafales.

Unknown speaker: In terms of business jets, you talked about the market and the prospects in the US and China. Can you tell us about your prospects in the other regions in the world?
Éric Trappier (Dassault Aviation): Yes, I can but it would be very qualitative. As I already said, the market is not booming. We can’t say that we will double our sales within a period of one year. We would like to, of course, and our friends on production will be running then. We would like to do that but, as I said, we will remain prudent because the signs in the global economy are not that fixed, you know. In the United States, things are fine but they are prudent. The Chinese, we don’t really know but they are more than prudent, they’re not buying too much and, in the middle, we have a large continent that is buying a lot of aircraft. That is Europe, Europe and Russia, so they are still active but you see the economic situation in Europe. Some countries are doing well, others are not doing that well, so it is still one of the spearheads for the sale of Falcons. The Middle East is still weak, not just for us, Middle East is not buying too many business jets, and we are developing in Africa slowly but here again, this will take place very slowly. So, in general, it is progressing compared to the other years where we were very low. Things are progressing. We’ve reached a plateau and there are signs of stabilisation of the pre-owned market. We really believed in the signs and the pre-owned market is doing well. We’ve increased our sales, and the pre-owned market is stagnating now, so we’ve reached a plateau.

Does that mean that the new aircraft market will reach a plateau? That’s the question that all the manufacturers are wondering. Just as our friends on the other side of the Atlantic, they’re also wondering about the same thing.

Stefan Barenski (Aerospatium): I have a small point I’d like to address that came up in your presentation. Space Rider, it’ll be on the table for the ministers to talk about it at the time of the ESA conference at the end of the year. It’s been dominated by the Italians up to now, Space Rider. Would you like to increase the French contribution in Space Rider?

Éric Trappier (Dassault Aviation): Well, this is a programme that comprised the Italians. We’re very happy about that. We’ve already worked with them with the XV, for example, and it went very well. The Italians are active. They’re intent. They have strong intentions in that area so we’re pursuing this avenue. The ESA has picked up this topic. As you say, it will come up at the conference in October, November, so we do hope that we’ll see a launch of that project and our skills in that area, I think, are worth taking into account. There’s a small space vehicle that should be able to come back, can do some experiments in orbit and so on, and we think that our skills, our competencies, you know, in a space aircraft like that could be useful for Europe. So, it’s a possibility, yes. We’ve offered our services to other people working in other areas too. It’s an opportunity for us to recall, as I recalled at the conference in Brussels a month ago, speaking to all the European authorities, the Commission, the Parliament and the industrialists, that Europe should indeed bolster the work it does in space. It can be done only at European level because the efforts in the area of space are huge, you know, when you come to put them in, and the United States have been doing a lot. It’s very hard for us to rival with them, and they’re reacting to the huge efforts China is putting into space, and not forgetting the Russians who continue to entertain ambitions in terms of space activities and their skill.

If Europe doesn’t get itself organised, it won’t work, so there can be some dissention, some lack of unity rather in Europe. You’ve got the Italians, you’ve got the French, you’ve got the Germans, you’ve got the ESA, the European Commission and these are all different entities that should have some kind of meeting on their minds to do something together if they want to. You know, they may have different opinions, so hopefully this conference later on in the year, at European level, will give a new impetus to the construction of space efforts here in Europe and we would hope to be part of the picture on our own scale.
Bruno Trévidic (Les Echos): I have two questions, if you don’t mind. First, on the FCAS and the next step, [inaudible 01:28:11]. Does that mean that you are on line with your Airbus partner on the definition of the various roles? Have the differences been settled? In a totally different area, what do you think about the reinforcement of Boeing and Spirit to the area?

Éric Trappier (Dassault Aviation): So, as for the FCAS, we have reached an agreement with Airbus right down to the bowels of the aircraft that we built in 2014. No, not yet and we will have to integrate. We haven’t reached there. We’ll have to integrate other countries. We’ll have to integrate the entire industrial fabric in France and Germany in the coming years. So, this is just the beginning of a great adventure with a certain number of uncertainties in these areas. What is sure is that we know our skills, I recall them, and we will use our skills so that this project might succeed. We have this will with Airbus. Airbus believes that they have skills in the field of assistance and they will have to partner with others to succeed also, so this is the very beginning of the building of this large FCAS system where we have ambitions on the future combat air system. So, today we are online and we said a year ago in Berlin, ‘We talk to each other every week and we are always in contact.’ Of course, there are thousands of small problems but all these problems aren’t always problems between Dassault and Airbus because there aren’t many. There are states, there are other partners involved, etc., so Dassault and Airbus, we have to manage all these topics and this is what we do together in a very coordinated way. As for the supersonic and Aerion, I see that Aerion is changing partners or is getting new partners quite regularly, so all the great ones, Lockheed, Boeing, Airbus. Dassault is not there. I confirm that Dassault is not there.

Now, more seriously, what is the problem with the supersonic? It’s always the same one. It’s the standards. Since the Concorde aircraft, the standards have changed, and on this side of the Atlantic and round the world in general, the Boeing control standards, the emissions of carbon, all these regulations are very restrictive. So, today we don’t want, on this side of the Atlantic, to develop a supersonic aircraft because, of course, it’ll be more noisy. I mean, you can always remove the boom. There are technologies that are being developed. I’ll talk about this at another point, but it is still more noisy. If you’ve heard a Concorde when it takes off, it is more noisy as a supersonic aircraft, and a supersonic aircraft consumes more than a conventional aircraft. As I said in my presentation, we’re working so as to build aircraft that, so that we meet certain environmental requests. This is what we’ve done with our engine manufacturers. We are trying to reduce, besides the noise, at the airports and that is everyday work, we want to reduce our consumption so that we consume less. So, we have this political will, and so today, launch a supersonic aircraft, that will cost a lot in terms of development, not only for the aircraft but for the engines too, for a number of clients that will be under pressure, I’m especially talking about businessmen and women, and we were talking about the populations, and I’m not sure that the business plan will be very credible.

We have to note that on the other side of the Atlantic, for Mr Trump’s America, there is a will to say, ‘The environment doesn’t matter. We will consume more. We will pollute more. We will make more noise’ but it doesn’t matter. We will still do it.’ So, they want to go into this development and change the environmental standards so that they can accept supersonic aircraft. So, according to the OACI, it’s not only us, the aviation sector but it’s the public authorities, the countries, we’re all following this environment which does not comply with what has been done at the Paris conference, so it’s a political issue once again. We provide our specialists, our talent, to find out how these standards are going to change at the International Civil Aviation Agency. So, we are launching demonstrators. We are making demonstrations. We are putting money at NASA. They’re not supporting the civilian. They’re only supporting the military, but they are doing it through certain agencies and they are supporting their aeronautical sector, so we are prudent. If we were to build a supersonic aircraft, they are dreaming of building one and Dassault has the competencies to build a supersonic aircraft but what is the business plan?
Unknown speaker: Please correct me if I am wrong but in the United States, it seems to me that the supersonic business jets, there are some start-ups, about ten start-ups in Silicon Valley that are addressing that, just a few tens of people working on them. If you look at the design drawings of those airplanes, they’re not worth their salt. What about the engines? There are no engines really. There are just mock-ups and nothing more than mock-ups. It’s not really very much in earnest. They live on slim budgets so I think those start-ups are more there to suck in budgets as opposed to being serious companies to make a supersonic business aircraft. Correct me if I’m wrong but that’s the impression I have.

Éric Trappier (Dassault Aviation): Well, the thing is, unfortunately that’s not true anymore. It was true a few years ago but for the last two or three years we’ve got to be a bit more cautious on what we say on that score. There are bigger agencies giving money. NASA is giving money, for example. It’s not the same thing anymore. It’s not just tens of people in their own little corner. There have been some businessmen, fairly wealthy ones, that have been putting money on the table for the development of supersonic aircraft. You also have the US powers that be that are prepared to change standards and put money into development and therefore large US companies now, Boeing and Lockheed, Gulfstream, that are interested in this too with, you know, an engine maker. So, I would say it’s not zero risk anymore that America might develop a supersonic aircraft, and it wouldn’t be just a business aircraft, it could also be a commercial aircraft. These topics come up in discussions with our friends in Airbus to try and understand what’s going on over there and that’s why we’ve been monitoring this very closely, the way in which the standards trend in the International Civil Aviation Organisation. If the Americans make the standards change, that must be for a reason.

Now, what you say was true a few years ago but we’re a bit more cautious. We wouldn’t say that anymore but for us there is no business plan right now that would enable us to say we’d put money on the table, 1 billion, 2, 3 billion, for this kind of thing, to make a supersonic business jet and then sell fifteen or twenty of them. I mean, imagine the price of that aircraft. If the business environment doesn’t make it possible or if the airports in Europe also won’t take those aircraft, you know, what do you do? So, we would prefer to rely on future development that’s underway.

Unknown speaker: Yes, well, talking about the risks, I am wondering about what would be the greatest risk, to go against all the convictions that we share mostly in Europe, that we shouldn’t have more noise, more CO2 and so on and so forth, or would the risk be greater to give up a business in the United States?

Éric Trappier (Dassault Aviation): It’s not a question of giving up because we haven’t even started, but if the situation is such, well, we have a few things in our pipeline. We’ve always dreamt of developing a supersonic aircraft but to go from the pipeline to reality, well, we need a few things.

Unknown speaker: You’re not saying no. You’re not saying, ‘No, we’re not going to do it.’

Éric Trappier (Dassault Aviation): We need to make sure that such an ambition would be successful so we have to be prudent on the market analysis. Yes, there are some clients who say, ‘Well, you can do Paris, Tokyo three times faster.’ I mean, in order to build a supersonic aircraft that would go from Paris to Tokyo, it’s not the same thing as a supersonic aircraft that would do 4,000 or 5,000 nautical miles, so people want smaller aircraft but you need more space inside. So, here we haven’t really looked at what it would be like to launch a supersonic aircraft.
**Unknown speaker:** You’re not saying no. You’re not saying no categorically because that would go against European convictions.

**Éric Trappier (Dassault Aviation):** We’re not saying no. We see that things are happening. We are saying no precisely today. We’re not going to put money into developing a supersonic aircraft. That is the situation as it stands today.

**Moderator:** Well, if everybody has asked all their questions, thank you very much to everybody for coming and don’t forget the Paris air show this year. Thank you.