



# **Dassault Aviation**

## **2019 First Half-Year Results**

**4 September 2019**

<b>List of MAIN speakers</b>	<b>Company</b>	<b>Job title</b>
Eric Trappier	Dassault Aviation	Chairman and CEO

### **PRESS CONFERENCE, SEPTEMBER 4, 2019**

**Eric Trappier**  
*Chairman and CEO*

Thank you for coming. Hello, we're going to talk about our half-yearly results, and we'll begin with a short film that will recap all the activities of the company for this first half of the year.

### **DASSAULT AVIATION HIGHLIGHTS 2019**

#### **Narrator**

2019 began with the visit of the Minister of the Armed Forces on January 14<sup>th</sup> to our Mérignac plant. Florence Parly officially handed the notification of the contract to develop the new Rafale F4 standard to our CEO.

**Eric Trappier**  
*Chairman and CEO*

The Rafale is an operational and commercial success. It retains the highest capacity level as it is regularly upgraded according to the most recent standards. The Rafale will still be in service after 2050. With this in view, it must pursue its development following the integration of the F3R by incorporating all the latest technological progress, but also feedback from our operational staff, so as to face new threats. Compared to the current F3R standard, the F4 standard will provide significant progress in four areas, connectivity, engagement, survivability and availability. The F4 standard will be validated by 2024. Some functions will be available right from 2022.

#### **Narrator**

In her speech, the Minister of the Armed Forces paid tribute to the know-how of the women and men of the company.

**Florence Parly**  
*Ministre des Armees*

You are France at its very best, its work, its industrial expertise, its service.

#### **Narrator**

Our Falcon support development strategy is being strengthened with the acquisition announced early 2019, of TAG Aviation Maintenance Activities in Europe and ExecuJet. In July, the company also announced the acquisition of RUAG business aviation activities in Geneva and Lugano, an ambitious strategy at the service of our customers which also resulted in the construction of an ultra-modern spare parts centre. This Dassault Aviation centre obtained the first place this summer in the AIN and ProPilot surveys. These surveys set the standards in the field of business aircraft support. Customers and operators paid great attention to their ranking. Both reviews highlight our excellence in almost every area, in support, the availability and price of spare parts, the responsiveness of our breakdown

service specialists, aircraft reliability, customer satisfaction. Our Dassault Reliance Aerospace Limited plant in Nagpur, India has started producing Falcon 2000 front ends and tanks. The construction of a new twelve-point 500m<sup>2</sup> building, the development of the local supply chain and the ramping up of the engineering centre in Pune demonstrate our desire to invest sustainably in India within the framework of the national policy known as Make In India. The delivery of first of the 36 Rafale ordered by India is expected in the coming weeks.

On February 6, our Bordeaux Mérignac plant hosted the delivery ceremony for the first of the 36 Rafales ordered by the state of Qatar. This event is a historical one, because it is a proof of the quality of the strong relationship established over 40 years between the Qatari Air Force and Dassault Aviation. This ceremony, hosted by Geneviève Darrieussecq, State Secretary to the French Minister of the Armed Forces, was the opportunity for the Deputy Prime Minister of Qatar, and Minister of State for Defence to unveil the name and official symbol of the Qatari Rafale, Al Adiyat. After a direct flight from France with in-flight refuelling, the first five Rafales in the hands of Qatari crews trained in France were welcomed in Doha, during an important ceremony in the presence of His Highness, the Emir of Qatar, and our CEO. The Rafale successfully carried out a test campaign in a very cold area in Finland, from 29<sup>th</sup> January to 2<sup>nd</sup> February in the Lapland region. Engine start tests were conducted at this site, as well as runway driving and flight tests.

A hot weather campaign, organised by the French Air Force this summer, in the United Arab Emirates, also demonstrated the Rafale's flexibility and robustness. Dassault Aviation was awarded the UIMM Aquitaine Women's Vocation Prize. The prize was awarded at the Trajectoires IndustriELLES ceremony to Bricette Aye, in charge of the industrialisation of the Rafale in Mérignac, Nadège Reuilh Le Gall, and Elodie Bouille. The Urban Business Aviation Exhibition, EBACE, took place in Geneva from 21<sup>st</sup> to 23<sup>rd</sup> May, an opportunity for Dassault Aviation to present its entire range of business jets, and to review the progress of the Falcon 6X programme, which is progressing according to schedule. The manufacturer of major parts has begun. The assembly of the first aircraft will begin by early 2020 for entry into service in 2022. On May 14, the construction site of the new Mérignac building was officially launched. It is mainly intended to accommodate research, development, and aftersales support teams. This is one of the projects of the programme to redevelop our infrastructure. The site is part of our transformation plan. This programme aims at specialising production sites according to strategic sectors. It also includes the construction of a new plant in Cergy to accommodate the activities of the Argenteuil site, the modernisation of the Saint-Cloud and Biarritz facilities, the extension of the Seclin site, and the delivery of a new building in Martignas for pyrotechnic activities.

Called 'Leading Our Future', our short, medium, and long-term transformation plan is based on our DNA, a passion for aeronautics, civil military duality, a constant search for innovation, and teamwork. The responsiveness, tenacity, and know-how of the company's men and women are at the heart of this transformation, which is driven by digital technology of which we're one of the pioneers. This transformation plan will allow Dassault Aviation to be stronger, more agile, in order to adapt to the changes in the world and the challenges that lie ahead to remain at the top of the world's aeronautics industry. On April 24<sup>th</sup>, the Falcon 8X broke a speed record by connecting the Eastern and Western Coasts of the United States in four hours and 28 minutes. The aircraft improved the previous record by 24 minutes, and despite more difficult conditions with a one-third shorter Santa Monica runway, and more stringent take-off noise standards, a new feat that demonstrates the flexibility and versatility of the Falcon family's flagship. Australia took delivery at the end of April, of the first of the three Falcon 7Xs it had ordered for its governmental fleet. The Falcon VIPs to be operated by the Royal Australian Air Force benefit from the latest connectivity solutions, with a broadband permanent data link.

The first two of the six Falcon 2000 MSA Maritime Surveillance Aircraft ordered by Japan have been delivered. Dassault Aviation has been awarded the verticalised Rafale contract, Ravel, for maintenance under operational conditions, MCO, of the French Rafale over the last ten years. The company shall deploy an information system to manage the Rafale, and shall use a big Tata-Dassault Aviation Dassault Systems platform for the benefit of all its stakeholders. As for the drones, this first half of 2019 was marked by the end of a flight test campaign undertaken by the nEUROn in 2018, and by the notification of a new campaign for the end of 2019. Dassault Aviation shall also pursue its active cooperation with Airbus Defence and Space, as well as Leonardo for the development of the Eurodrone MALE. The goal is to obtain a contract with OCCAR. The inauguration of the Paris Air Show was marked by the unveiling of the scale one model, the future new generation NGF fighter aircraft, and their support drones, in the presence of the President of the Republic, Emmanuel Macron, and the French, German, and Spanish defence ministers.

During that event, Eric Trappier, CEO of Dassault Aviation, and Dirk Hoke, Executive Chairman of Airbus Defence and Space, signed an industrial agreement for demonstrator programmes. They also submitted a joint industrial offer to the government for the initial demonstration phase of the future SCAF Air Combat System, with a view to a first flight in 2026. The ministers initialled the framework agreement between the three countries on the development of the SCAF. The SCAF aims at creating a combat system around the NGF, combining drones, unmanned platform, current and future generation fighter aircraft tankers, AWACS, etc. France has been designated as the leader nation, and Dassault Aviation Industrial the leader company for the NGF fighter aircraft. During this 53<sup>rd</sup> Paris Air Show, the President of the Republic, Emmanuel Macron, heard a detailed presentation on the civil and military range of Dassault aircraft. Prime Minister Édouard Philippe was able to discover the different trades in the company.

Several members of the government were able to appreciate the extent of Dassault Aviation's expertise and know-how in many fields. A large number of military delegations and customers visited our static display. Our highly innovative stand was particularly appreciated by large numbers of visitors. During the exhibition, the French Minister of the Armed Forces also confirmed her intention to purchase three Falcon 8X Archange to implement the Universal Electronic Warfare Charge, and seven Falcon 2000 Maritime Surveillance Albatros. Pre-study work to prepare the contract for the development and manufacture of these aircraft is in progress. During this 53<sup>rd</sup> Paris Bourget Air Show, the Rafale demonstrated its flight qualities each and every day, with air force captain, Sebastien Nativel, nicknamed Babouc, at the helm. The Rafale also presented to many foreign delegations throughout the week. They were able to discover the many innovations on display in the military support customer service area. A brand new Rafale simulator allowed us to demonstrate the extent of our aircrafts' operational capabilities. Just as the Rafale, the Falcon 8X flew every day. The flagship of the Falcon range was also presented at our static exhibition, alongside the Falcon 2000, the Falcon 900, and the scale one model of the Falcon 6X cabin.

As part of its plan to recruit 1,000 employees in 2019, Dassault Aviation actively participated in the fourth edition of the L'avion des Métiers and in the employment and training forum. The company was also present in the Paris Air Lab, a space of discovery dedicated to innovation, where our specialists were in charge of the big data and artificial intelligence island. At the air show, Dassault Aviation also welcomed the partners it supports within its social action programme, such as the Antoine de Saint Exupéry Foundation for Youth, or the Rêves de Gosses Association and the Elles Bourgent Association, encouraging young women to choose careers in aeronautics. Finally, the show was an opportunity for us to pay a very special tribute to Serge Dassault, who has done so much for the development of Dassault Aviation.

## PRESS CONFERENCE

**Eric Trappier**  
*Chairman and CEO*

Well, thank you very much. We'll now move onto our business activity. Lots of things have featured already in the film, so I'll be fairly quick on the presentation so as to allow plenty of time for the questions.

## PARIS AIR SHOW 2019

You've seen, of course, the star of the show at the Bourget was the signature of the agreements with the three countries involved, France, Germany, and Spain, regarding FCAS, the Future Combat Air System that we are partnering with Airbus in so as to support this development that is preparing us all for the future. By 2040, we hope to see the commissioning of this system, FCAS. The Bourget Air Show is also a good opportunity to do some stock taking with political dignitaries who come and visit the Air Show. There were lots of them, and it's a chance to see the delegations. There were lots of those who came along this time too, and it was an opportunity for people among delegations to meet on the B2B basis, and a one-to-one basis, and the public at large that come to see the aviation business lines, the spaces we prepared for the GIFAS entity, the employment recruitment area, and the innovation area. Also, it was a good opportunity to pay tribute to Serge Dassault, because it was the first Le Bourget Air Show without his presence.

## CONTEXT

Now, the [inaudible 13:10] trends, you're familiar with them, I think. I won't dwell them. There is geopolitical tension, as you know, that I won't go into in detail. Some uncertainties too, regarding the relationships between China and the United States, creating also further uncertainties with respect to the potential trade war between these two, hence ripple effects for certain companies. The Brexit, well, no comment on that. There's lots about that in the news, all the uncertainty hanging over a possible Brexit and how the UK might leave the European Union, and how we'll have to rebuild some kind of business relationships and trading relationships with this important country. Economic environment, well, it's of course something that ensues from what I've just been saying, uncertainty. The business climate can suffer from these uncertainties, but in the US, we see development investment going on at a more normal pace. Then, of course, the dollar-euro exchange rate, the dollar is strong, and we've got to hedge against future currency fluctuations if the dollar is less strong in the future.

## FUTURE COMBAT AIR SYSTEM (FCAS)

So, the Future Combat Air System, SCAF, this is something that encompasses different platforms and already existing aeroplanes with the future combat aircraft, the NGF. Initial design work was done at the start of the year, and we set up a contract between Dassault and Airbus, as you know, on this, so as to hopefully foresee the launch of demonstrators. The Air Show in Le Bourget was a major milestone because the three countries are in agreement now about the start of the demonstrator programme. So, we've got to get into the contractual administrative details now, so as to sign contracts and so on. That's in process. The DGA for France, with their counterparts in Germany and Spain that are basically in charge of getting these initial contracts going, hopefully, in 2019. Now, the objective, I'd recall, is the first demonstrator flight in 2026.

## **RAFALE FRANCE**

The military programming law here in France, you know, no Rafale deliveries for a certain number of years. So, 2018, there were three. 2019, there won't have been any. The launch of the F4 at the end of 2018, we started working on it. This is the major issue. We hope to have an additional order by the end of the year for options to do with the F4 standard, and we'll resume deliveries then for the second part of the fourth tranche, 28 aeroplanes that is, 28 Rafales, as of 2022, and then reach the order of a fifth tranche that's been announced by the French Defence Ministry. An important notification was done, which was the contract notification for Ravel, which is the verticalised Rafale. Now, we have seen the contract notification for the French Rafale Operational Condition Maintenance, that is OCM. We want to give more verticality to these maintenance contracts, give the responsibility for matters in the vertical way to the aircraft manufacturer, so we want to tie in all the supply chain, apart from the engines and the ejectable seats, which will be managed separately. So, Dassault Aviation is the OCM single prime contractor for aircraft equipment, excluding the engines and seats.

See, this is a contract that encompasses ten years. Obviously the order intake would be impacted by it. Of course, it'll contribute a lot to the French order intake, and a particular feature of the contract is the setting up of a big data platform that we're currently putting together, in Dassault Systems and Dassault Aviation together, so as to foster a secure exchange of information with our user friends in the military arena.

## **RAFALE QATAR**

Now, deliveries for export markets of ten Rafales of the 36 ordered by Qatar. I am mentioning the end of August figure. This is September now, of course. Thales has actually postponed the publication of its half-yearly results, thanks to or because of Gemalto. So, there are things that happened over the summertime, for example, with respect to the Rafale, five deliveries of Qatar Rafales. So, to date, we've delivered fifteen Rafales to Qatar, and the five that we've just delivered are actually ones that have arrived already very well. So, in Egypt, we've delivered the 24<sup>th</sup> Rafale in July. It's not in the half-yearly results, of course, because the cut-off date was the end of June, but the delivery of the 24 Rafales to Egypt has now been done.

## **RAFALE EGYPT AND RAFALE INDIA**

India, Rafale for India, first deliveries in 2019 of the contract of 36 Rafales ordered. India is an important country for us, of course, with the re-election now of the prime minister, Mr Modi, and his party, his coalition. We're preparing the setting up of Make in India still.

## **MAKE IN INDIA – IMPLEMENTATION OF A PRODUCTION LINE IN INDIA**

We're setting up in India, we're in for the long haul. We're starting to manufacture Falcon parts. We've done it in a small hangar for the moment, and now they've built a big hangar that you can see on this photograph, which will help us to pursue our ramping up of our business efforts in India, leading to the final assembly of a Falcon 2000 in India, making certain parts locally. It'll be true also, slowly but surely with the Rafale, and depending on the orders that we might obtain from India for the Rafale. So, our supply chain is supporting us too. It's not just Dassault, but subcontractors too, going to settle in India as well. We've even opened an engineering centre in Pune, near Bombay.

## **EURODRONE**

Now, the MALE drone, Eurodrone, we're working behind Airbus which is the lead contractor here, dealing with the OCCAR, which is the contracting entity, and dealing with Germany, which is the lead country. For FCAS, France is the lead country, so here's Germany, and we are trying to obtain the contract which would enable us to develop a platform of this nature, that would be competitive but especially be more developed than what's been done by our American friends up to now.

## **SPACE PROGRAMS**

Space programmes. We're working on obtaining additional contracts from ESA. This will all depend on what will be decided on at the ministerial conference next November in ESA, but in particular, we would like to continue our adventure there in small space vehicles, especially the Space Rider project. Also, there is a new interest for defence in the space area now, and there are some bodies that have been set up under the Air Force, so as to prepare space-based defence.

## **MARITIME PATROL AIRCRAFT**

Now, maritime patrol aircraft, we've delivered ATL2 that has been upgraded. The initial aircraft have already been retrofitted with this upgrade, and that'll be part of our sales figure for the first half of the year.

## **MULTI-MISSION FALCON**

Then also, Japan, delivery of the first two Falcon aircraft there. There's been an order of six Falcon 2000 MSA for maritime surveillance by the Japanese Coastguard. So, that's six there in total ordered, and we hope to continue with the pace of delivery and sale of aircraft to the Japan Coastguard. Now, France, Florence Parly, our French defence minister, has confirmed the decision to enter into a contract for three aircraft for the electronic warfare effort to replace the Gabriels that are becoming older now. So, three Falcon 8X Archange ones, and seven Falcon 2000 LXS Albatros for maritime surveillance and intervention, and seven, therefore, Albatros Falcons. We've also delivered a second Falcon 50 with a hatch for search and rescue teams, so we're pursuing our improvements to Falcon 50.

## **BUSINESS JET MARKET**

Business jets, well, the start of the year was a very flat market. The first half of the year was really flat in terms of orders, because we had seven orders as of the end of June this year. That was a pretty low ebb, in spite of the fact that the pre-owned aircraft got off to a pretty good start, but lots of prospects and negotiations, but not an awful lot of orders. So, July and August, all of a sudden we saw finalisation, and some achievement there, resulting in a total of 26 Falcons in the order intake as of the end of August. So, people became pretty active over the summertime in terms of ordering Falcons. That's quite substantially important, we think.

## **FALCON 6X**

Regarding Falcon 6X, we're pursuing our development of the 6X. Everything is as per plan, and everything is on track. We hope to see the commissioning of the 6X by 2022 as planned, and we're really impatient to see this aeroplane. There have already been sales of the 6X, and we want to see it flying as quickly as we can.

## **FALCON IN SERVICE**

So, Falcon in service. It was said in the film that this is number one in all areas, not just in the general league table, but on all sorts of points that we've put here on this slide for you. So, we're pretty proud of this in the company. A lot of work was put in by our teams to work closely, side by side with our clients, and the two publications that are the benchmark ones here, AIN and ProPilot, US-based publications that rate the business jets as a whole, we came out on top of their list. That, we think, is important as something that's really a feather in our cap. It's really what our clients think and say to these publications. That means that in reality, the efforts we've been putting in to be customer-focused, work side by side with our clients, to have reliable aircraft, help them if there's an issue in terms of troubleshooting, and that's been factored in by our clients. Their service satisfaction reports bring us out on top. So, Falcon in service, again, the Falcon 8X, there's been a new-time record that you heard about in the film, in spite of the take-off on the length and noise-restricted field over there. So, that was a new-time record there. Continuous improvement of our aircraft in service, with the FalconEye that's starting to be used widely now in the whole of the range. 8X, 7X, 900, 2000 and so on, they'll all be equipped with the FalconEye.

FalconEye is something that enables us to approach in poor weather conditions, in fog, or night time, for example, with maximum security. Up to 100 feet in very safe conditions. It's a really good enhancement, and the Royal Australian Air Force, as you see here, two Falcon 7X VIP delivered out of the three that they ordered. We've delivered two already, and their air force is pretty happy.

## **FALCON FAMILY**

So, here's the Falcon family, the future, well, I'll frustrate you for another few months, maybe.

## **FUTURE FALCON**

The future Falcon, that is. We're working on it. It's in progress, but not much on the slide because it's rather confidential for the moment.

## **FALCON CUSTOMER SERVICE**

Falcon customer service. I've talked about success and satisfaction of our clients, but it's also a question of extending our service centres. That's important. We've talked about that already. We started off with the ExecuJet. We continued with the buyback of TAG, and now, we've continued further with the purchase of RUAG business jet operations in Geneva and Lugano airports. So, this is now quite a substantial network, well fleshed out, as well as our own capabilities for support internally, like we had in ADFS in the US. So, global leadership with Geoff Chick, and our business manager over there. So, we're continuing with the integration to the great satisfaction of our clients. We are closer and closer to where our clients operate these days.

## **TRANSFORMATION PLAN**

The transformation plan is being pursued. You've seen a certain number of new appointments. The manager of the design office. In the field of civil aviation, I announced it at the EBACE, the replacement of Olivier Villa by Carlos Brana. The setting up of this new support to be more efficient, vis-à-vis our Falcon clients. The replacement that was made today at the top of DFJ, Jean Rosanvallon, he's going to remain because of his great experience, he's going to be a consultant who will be directly by my side, by Thierry Betbeze. He's going to take the leadership. He was the financial director of Dassault Falcon Jet, and all this is to give more strength to a certain number of



transformations carried out in the company. The deployment of the digital technology, I talked about the big data Dassault system. We are trying to develop this new aircraft. I'm not going to tell you about this, with our 3DExperience tool. In our plans, considering the transformations we're making, you've seen the modernisation projects for our plans. You cannot see what's happening inside, but these are digital transformation programmes with the arrival of SAP. That is Apriso also.

### **DIGITAL**

So, in the digital sector, the results of Dassault Systems this summer have highlighted this teamwork we are doing with Dassault Systems. We really bank on 3DExperience, which is a wonderful platform in terms of all its new features, so as to improve our development capacity and our productivity.

### **INDUSTRIAL**

From the industrial point of view, I just have to remind you that we're going to close down Argenteuil, as you know. This has been accepted by everybody. We're going to open the new plant in Cergy. We've begun working on the mock-up of the new plant. We've bought the land. We are in touch with all the authorities in the region of Cergy and the urban community of Cergy. Everything is taking place well, in terms of all the schools around, to train people, to have schools that can provide employees. The modernisation of Biarritz, Martignas, for those who can go there and who can visit the building, it's almost built. It's almost operational. It will be in a few weeks from now. Mérignac is being built. We have this tertiary building. Seclin, with its extension, we have linked two buildings. Seclin will deal with the primary parts from Argenteuil, and finally Poitiers, with a certain number of activities that'll be arriving in Poitiers.

### **ORDER INTAKE, DELIVERIES AND BACKLOG – IN UNITS**

As for our results, so seven aircraft at the 30<sup>th</sup> June, in terms of our order intakes, compared to eighteen in 2018. That's for the first-half deliveries. We've delivered seventeen aircraft at 30<sup>th</sup> June, compared to the fifteen in 2018. So, 43 Falcons, that's the backlog, versus 53 at the end of 2018. Rafale export, no new orders for Rafale export. The delivery of ten aircraft, the ten Qatari ones, compared to the two in 2018, and the backlog is 91 versus 101 in 2018. Order intake, 2.9 billion. A large number of orders in France, because of the verticalised contract, the Ravel contract, which will take place over the next ten years, versus the 2.8 billion last year, which would include the twelve Qatari aircraft. The net sales, 3.1 billion. That's the net sales, those are the deliveries of the Rafale and Falcons that I mentioned earlier on, and the delivery of the ATL2 modernised, compared to the 1.7 billion in the first half of 2018.

### **ORDER INTAKE, NET SALES AND BACKLOG – IN € BILLION**

So, the backlog at 30<sup>th</sup> June is at 19.2 billion versus 19.4 at the end of 2018.

### **ORDER INTAKE, DELIVERIES AND BACKLOG – IN UNITS**

I'd just like to take a few seconds to update things at 31<sup>st</sup> August, because I told you about the summer, which was a very studious summer. Order intake, 26 aircraft versus seven on a half-yearly basis. A delivery of 23 aircraft versus seventeen on a half-yearly basis. As for the Rafale, sixteen Rafale were delivered compared to the ten on a half-yearly basis. So, the backlog is at 56 Falcon, 85 Rafale, compared to the figures I had indicated at the end of 2018.

**CONSOLIDATED SELF-FUNDED R&D – IN € MILLION**

Now, our research, self-funded R&D, €258 million, that is the strengthening of our teams for the development of the Falcon aircraft. We are working on the Falcon 6X fully, and we have begun the development of new Falcons, so we are increasing our efforts in terms of self-funded R&D Falcon.

**ADJUSTED CONSOLIDATED INCOME STATEMENT**

Adjusted consolidated income, net sales, €3.58 million versus €1.709 million in 2018. Operating income, €250 million versus €111 million last year, on a half-yearly basis. Financial income is equivalent, -26 versus -38 last year. Equity affiliates of Thales, €143 million compared to €134 million in 2018. Taxes, vis-à-vis our income, €81 million versus €21 million, so the net income is €286 million versus €186 million last year. Net income margin, slightly down, 9.4% compared to 10.9% because of Thales, because Thales is less important in our results compared to 2018.

**CONSOLIDATED AVAILABLE CASH**

Our available cash, we're using our cash to build aircraft, so we're receiving prepayments but we are delivering our aircraft now, so we can see this in our income, and there's a drop in our cash from 5.2 to 4.8. It's going to continue because of the delivery of the Qatari and Indian aircraft. This is what I wanted to tell you today, regarding our half-yearly results. I'm at your disposal to answer all your questions, if you have any questions, because if I was clear enough-

## QUESTIONS AND ANSWERS

**Jean-Marc Tanguy (Raids Aviation):** Aren't you worried about the time for the negotiations to reach the Eurodrone? As a partner of this programme, how do you decode the time you require to sign a contract?

**Eric Trappier (Dassault Aviation):** In terms of defence, I'm always worried about the time, but our DNA and our experience has shown that we have to be resilient. We have to be a little bit patient. We aren't so naturally, but we learned to be so. We have to be patient in these large defence programmes. In the cooperation programmes, we have to be even more patient. Because there are several countries, several companies involved, you have to be even more patient. This is a topic that is studied by OCCAR for four countries, France, Germany, Italy, and Spain, where there are three major companies working. Actually, there are many more, but the three leaders are Airbus, Dassault, and Leonardo. The prime contractor to OCCAR is Airbus. The discussions are underway. We aren't really concerned. We are supporting our prime contractor, Airbus. They ask us questions, we answer them, and I think that the major part of the discussion are the States. Are the States going to do it? What will be their budget? That is the discussion underway between Airbus and OCCAR. I must say that there's an additional complexity, but it is quite pleasant. That is, it's one of the topics that could be used for the new European defence fund, and it can contribute to develop European material for European requirements.

**Olivier Brochet (Credit Suisse):** Hello, Olivier Brochet from Credit Suisse. A couple of questions, please. Firstly, about the market trends for business jets, geographically speaking. If you could give us a breakdown, you know, what you've seen in the market in the first half, and what about the business activity right now? Secondly, the hedging. Currency hedging, the exchange rate used in the first half of the year. What about the second of the year? How do they compare? According to what I've understood, you've hedged a bit, you've taken out some additional hedging instruments. How far does that go?

**Eric Trappier (Dassault Aviation):** Okay. The trend for the Falcons per zone, we won't do it in a quantitative way, but qualitatively, maybe. The United States are faring pretty well. The American continent in general is faring pretty well. Orders are coming in from the United States. It was true last year, and it remains true this year. It's a trend. It's the US economy that is fairly buoyant and active with investments continuing. So, all types of aircraft in the United States. The second trend is a bit of a dip in Europe. It's hard to always link one thing with another, but maybe there's some uncertainty that I mentioned earlier about Brexit, and issues to do with Europe's positioning, and Europe vis-à-vis the issues between the United States and China, and so on. Also, perhaps, the southern part of Europe, that's a bit less buoyant than other parts of Europe, so these worries or sources of disquiet, don't really foster a very active market, but we're selling in Europe anyway. Now, notwithstanding that, in Asia, well, there are two Asias, there's China, and the rest of Asia. China is still a bit flat, so as I've been saying for many years, it's flat but you've got to be patient. China will purchase, but you've got to be present in China therefore. They're not buying from anybody, from ourselves or our competitors, at the moment, you've just got to bide your time.

We've been investing in China, we're close to China, we're present in China, but the results for the moment haven't really materialised on the power, with the size of this country that wants to be a major economic power. They will necessarily have needs, so as to get around efficiently in the business world. Now, the rest of Asia is rather promising. We've got new countries that are becoming interesting in the business jet world, especially for Falcons. Australia, of course, it's well known that they need aeroplanes. It's such a vast country. Everything is big in Australia, so you need to get a plane to get around. So, the Middle East, it's a bit flat along with Africa, a few sales, that's all,

but the US is bigger. I won't say it's a bit better with Brazil, because you'll ask me about the political impact regarding the issues between France and Brazil at the moment, the impact on our sales. Well, the business world, a priori, was in favour of the arrival of the current authorities in place in the country, so would tend to foster, maybe, the purchase of business jets in that country. Oh, the hedging instruments. Sorry, I didn't answer that one. Yes. We've taken out hedging instruments. 1.18 is our basis for the hedging ratio, but I'll leave it at that. There are other things, but I can't tell you them for the moment. There are things I know, but things I can't say.

**Thierry Dubois (Aviation Week):** Can you tell us about the F3R retrofit standard, and the Mirage 2000D?

**Eric Trappier (Dassault Aviation):** The retrofit of the F3R, we have delivered the F3R. The development has been accomplished, it has been delivered. Now, we're in the application of the F3R in a certain number of aircraft. We've done a few. The Armed Forces has received some, and then it is a state that deals with these projects in the state workshops. I can't really tell you where we've reached, but there is a programme to retrofit all the aircraft into F3R. I mean, not the whole fleet, but part of the fleet. The second question, on the 2000D, modernisation is underway. It hasn't yet been finalised. It will take place, I don't remember which year exactly, I think, roughly, 2020, the delivery of the retrofit of the 2000D. There are a few additional arms on the aircraft, etc. So, it's standard, and there will be other projects in the state workshops.

**Speaker (Investir):** Yes, I'm from Investir. I gathered that one of your competitors in business jets was undercutting on prices. Is this still going on? Was it the case, and is it still going on, is my question, please? In business jets.

**Eric Trappier (Dassault Aviation):** The price war, price battle, I don't know if we can say that there's been undercutting, but there's been a price war, yes. So, obviously, you've got to have a cost war, too. You know, one of the players has brought the prices down much more than others. You probably know which one, so I don't need to name names, but there are lots of analysts here. Who needs most cash, and you'll know who's been doing that. You'll find the name straightaway. They were afraid the debate was over, is that it? Some people are keeping their questions under their hats, or something.

**Pierre Tran (SAT Info):** I have a question on the possible contract for the NGF demonstrator. For when is it planned, and the signature of this contract that you mentioned, is that related to the Franco-German project for tanks?

**Eric Trappier (Dassault Aviation):** No, it's not a tank. It's not a 'char', a tank, but we would like the two topics to be completely separated. So, we with Airbus, and the people with whom we cooperate in the field of NGF and SCAF, there's the NGF demonstrator but there are also the remote carriers. There are a certain number of packages in this large global system. We are ready, we've made our offers, we have shared our industrial tasks, and we're waiting for the contract. This reminds me of a question on the Eurodrone, or on the MALE. It always takes too long, but we do believe that it is taking too long considering the announcements made at Le Bourget. We would like it to happen quickly, and we were hoping it would happen at Le Bourget, now in September, or by the end of year, but it's normal. We are impatient industrialists. Our engineering teams are absolutely motivated. They are ready to work, really, and not just on proposals. They want to develop a prototype, and we need that to develop our skills. So, we're very impatient to obtain this contract. I think it is a contract that's easy to sign, but, of course, the three countries have to agree. We have to agree on the budgets. The systems are not the same in the three countries, so all this has to be harmonised.

We're doing this, and France is the leader, so it's up to the DGA to make sure that all this takes place quite rapidly.

We must not forget that to make something fly by 2026, we need to have a starting time, because otherwise all this will be left floating, and we cannot leave our teams idle. So, we're trying to motivate our teams, and the contract has to arrive. The budget? Well, I know the budget, but I'm not going to give it to you, but the DGA knows about the budget. You can ask them this question. This is not something we have decided to publish during the Bourget air show.

**Speaker:** Well, on business jets, this period of a flatish market that went on for a while, would it not raise financial issues that you'll have a low ebb of deliveries and then you've got the R&D spending going on? You've got to cover your costs, you know, you've got factories, and to have an imbalance between this low ebb must create some cost issues.

**Eric Trappier (Dassault Aviation):** Well, as I've been saying for decades, and my predecessors as well, that this is our dual activity that helps us out, we work for civil aircraft and for military aircraft. So, you know, we have two strings to our bow and we try and get the balance right. Now, it's hard to say what's a low ebb on the market. We've got guidance for 2019 at 45 Falcons, so we'll deliver 45 Falcons, we think. That would mean that we'd manufacture more or less 45. We can't say it's a bad year either. We had better years, better vintages, so to speak, but we had worse vintages, too, so to level off at 45 isn't bothersome, in my eyes. If we can do double it, all the better, but at the same time, the Rafale pace has gone up, gone from one to two, to be capable of delivering this year and next year the export contracts that you're familiar with. So, it's not an issue for us, I would say, right now, in terms of industrial activity. We're working at our rate of speed as a company.

**Yann Cochenec (Art & Cosmos):** I have a question. You talked about a space programme, Space Rider. I don't know much about it. Can you tell us a little more about this?

**Eric Trappier (Dassault Aviation):** The Space Rider from the Franco-Italian line, it's a way of validating the return of vehicles from the atmosphere. We've already done this. We carried out a demonstration. We launched the Vega rocket, and we would like to continue this aspiration. You know that we have experience. We wanted to have a spaceship in Europe, Hermes at the time. We've preserved that experience. We have good aerodynamic technicians at Dassault, and we have good air controls. We can link aerodynamics to controls. So, any space vehicle that would like to go into the atmosphere in a piloted way, it's out of the question to have bits of rocket falling back on earth, and so we're interested in having spaceships that come back. So, we have a project of this type called Space Rider. We are already a stakeholder in the current studies, and we hope to go further and hope to have some demonstrations in the coming months. It's an ESA project, European Space Agency, project.

**Yann Doroch (ODDO BHF):** Yes, I have four small questions. The first one concerns the business jet market. We've seen your competitors with a book-to-bill ratio greater than one, driven by certain factors. Even if we look at the upthrust you had in August, apart from the 6X, you know, you haven't been obtaining as many orders as some others. Could you explain the slight market-share losses in the short-term for your company? The second question has to do with the service activity. How far have you got now in terms of external growth? In other words, have you got a network that is now fleshed out enough? Is it big enough, or are you going to make further acquisitions? Could you share with us some objectives you might have, numerical objectives between now and three or five years hence, you know, about the contribution made by that part of your activity? The third question on the NX, lots of suppliers have already responded to calls for tender, what could you share with us?

Any information, maybe a timeline about the different development phases? Any numbers you could give us on that?

**Eric Trappier (Dassault Aviation):** Firstly, on the first question, if I'm not mistaken, at the end of August it was 26 orders and 23 deliveries, so book-to-bill greater than one. I mean, anyway, if you look at the end of June, it's a book-to-bill ratio that's negative, but end of June, is it representative of the market for Falcons? I don't think so, because it's fairly rare that you manage to sell so many aeroplanes in July and August, so there was some catching up done by clients. They didn't place their orders, for all sorts of reasons, beforehand. So, we're doing not necessarily better or less well than our competitors. You can't compare in this period because our competitors don't produce the figures that enable us to verify that in respect of comparable aircraft. Take Bombardier, I mean, it's a wider-bodied aircraft, you know, and their number of aeroplanes would be-, you know, they have lots of wide-bodied aircraft that they supply to the market, so you're not comparing like with like. In terms of new aircraft, I hope, and we all hope, that we will be extending our sales with the arrival of the 6X, which should offset, a bit, the loss of activity because of the 5X, because we lost out. You know, we lost about four years in this whole affair. So, yes, the arrival of the 6X should boost our sales, we would hope, in a market which, as you see, is, you know, moving around a bit, but I'm not unduly worried.

I would have been more worried if I'd published on 1<sup>st</sup> July. I'd have said, if we'd been talking here on 1<sup>st</sup> July, I might have been a bit more worried, but at the same time, there are lots of talks going on with lots and lots of clients. Even now, there are lots of people who are would-be purchasers, so the price pressure, we talked earlier about that, it's important but it's not the only factor. We need to widen the range, so the arrival of the 6X will help us a lot there, in terms of the Falcon range. Now, the service centres, let us finish closing the deals, the three acquisitions we made, and integrate those companies in the coming few months, before we talk about further possible acquisitions. We would hopefully be able to give you figures when we have the end of 2019 figures available by about next February. When we have the 2019 figures all available, we should be able to give you a bit more detail about that, you know, having integrated those acquisitions. Your third question, what was it again? Ah, the future Falcon. Well, no, can't answer it anyway, sorry. That's why I'd forgotten it, maybe.

**Chloé Lemarié (Exane):** I have two questions. The first is, can you give us an indication of the net cash at the end of the year? The second is on the R&D envelope for the full year.

**Eric Trappier (Dassault Aviation):** I cannot answer your first question because we do not guide our cash. I gave you an indication that our cash is going to go down because of the additional delivery of the Rafale, so I'm just giving you a trend, which is normal, logical, but I'm not going to give you the landing at the end of the year. I'll let you discover it when we will publish our accounts. So, I'll try to put the question a different way. Will there be another drop in the cash? Yes. The answer is yes, there will be a drop in the cash because we're going to deliver a lot of Rafales this year, so whatever has been prepaid for these contracts will be used, and so therefore there'll be a drop in our cash automatically, and it's the same for the self-funded R&D. For the self-funded R&D, I gave you two indications, the half-yearly one, which is normal, and I said that there was a progress because we are ramping up on the future Falcon and we are developing the 6X, so the second half will be slightly higher than the first half. That gives you a small indication.

**Speaker:** On the Rafale F4 standard, you said you're awaiting additional orders for options. Could you be more specific on that, please?

**Eric Trappier (Dassault Aviation):** Yes, well, DGA has rolled out, for the French armed forces, an F4 standard. That has been gone through, in the main, anyway. So, there are additional tranches that will come in to the total number planned for the F4 standard. So, if you're trying to do calculations to see how it gets into the sales and so on, I'd like to tell you that there are additional complementary orders that should come in that'll be titled F4. Not the same on a par with the previous ones. The bulk of it has gone through.

**Speaker:** I have two short questions. The first is on Rafale. What is the net sales in H2 for this activity? The second question on Albatros and Archange, where are the 26 orders on 31<sup>st</sup> August?

**Eric Trappier (Dassault Aviation):** The Albatros and CUGE, no contracts have been signed, so it is not in our orders. As for the net sales of Rafale, if there were any it would be very low because this is really the beginning, but I think it will be, rather, in 2020.

**Christina MacKenzie (Defense News):** You disturbed me, actually, because you said that there were no orders placed for Archange, Albatros and the three Falcon 8X and the seven Falcon 200LX6. There were no orders?

**Eric Trappier (Dassault Aviation):** No, there are no orders. It's just good to have it in the future.

**Christina MacKenzie (Defense News):** You expect that for the end of the year?

**Eric Trappier (Dassault Aviation):** For the three 8X, we hope it will be before the end of the year, but you know, the discussions with the state, it always takes a long time. We have to be patient. So, if it's not at the end of this year, it'll be at the beginning of next year, and for Archange, it won't be this year but next year, most probably. Okay? Well, if there are no more questions, I'd like to thank you, and I hope to see you very soon for our results in 2019, that is in six months from now. Thank you.