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WARBUS: THE INCREDIBLE SAGA OF EUROPE'S A400M

HOW POLITICS AND TECHNOLOGY NEARLY CRASHED EUROPE'S 20 BLN EURO TROOP CARRIER

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INSIDE THE FIGHT FOR THE A400M TROOP TRANSPORTER

SPECIAL REPORT

- Troop plane makes public debut at Berlin show this week
- Germany made last-minute threat to kill rescue deal
- Airbus chief held secret talks with Spanish king
- Britain won special treatment to keep it in the project
- Despite deal, inflation could add another 3 billion euros

TIM HEPHER AND SABINE SIEBOLD

BERLIN - The first shot to be fired at Europe's 21st century army plane came not from the barrel of a gun but a safety inspector's clipboard. In 2008, weeks after the first A400M troop transporter rolled off a gleaming new assembly plant in Seville, a group of inspectors travelled to southern Germany to scrutinise an important component for the plane's huge turbo-prop engines.

The inspectors were from the European Aviation Safety Agency (EASA), an EU body responsible for certifying aircraft; they wanted to conduct a routine check of plans for the engine software. The A400M's maiden flight was already six months overdue, but in an industry which often measures delays in years, that was nothing much to worry about.

Soon after arriving in Munich, though, the inspectors discovered that MTU Aero Engines, the company behind the engine software, was so far behind schedule that there was no point even holding a meeting, according to people involved in the project.



An A400M on its maiden flight, Dec. 11, 2009. REUTERS/MARCELO DEL POZO

This week, after almost three decades of squabbles over what the A400M should do, where it should be built, how much each plane should cost, the software catastrophe and uncertainty over 10,000 jobs, the 20 billion euro (\$24 billion) troop carrier will finally woo crowds of plane-lovers during its first public display at the Berlin Air Show.

The software and paperwork problems cost Airbus more than a year and nearly crashed the entire project. A spokesman for MTU says the delay was caused by a decision to go for civil certification, which was outside MTU's control. EASA declined comment.

An even bigger crisis, over a huge funding shortfall, this year forced cash-strapped European governments to back a 3.5 billion euro bailout. "We hate you, but we don't want you dead," an exhausted government negotiator told Airbus officials before a deal was finally struck in March. (Because of the sensitivity of the matter, most people connected to the programme spoke on condition that they not be named.)



The crew of the Airbus A400M military transport plane pose with Spanish King Juan Carlos after their maiden flight in the Andalusian capital of Seville December 11, 2009. REUTERS/MARCELO DEL POZO

Even as the A400M takes to the skies over Germany, officials from the seven European nations behind the project -- Belgium, Britain, France, Germany, Luxembourg, Spain and Turkey -- are wrestling with a new problem.

Just 12 weeks after the rescue agreement, officials are locked in another struggle over the impact of inflation clauses on the project's final price. One senior official says the disputed sums could pile on another 3 billion euros. Meantime, buyers such as Britain, Germany and Spain are contemplating budget cuts that may yet impact orders.

At a moment when Europe should be celebrating the launch of its biggest collaborative defence project -- a plane that will massively boost the continent's expeditionary reach and ability to wage war or supply aid -- it's wondering yet again if it can even afford its new plane. "It should have been an ideal European programme," said Alexandra Ashbourne-Walmsley, associate fellow of the Royal United Services Institute, a London-based defence think tank. Instead, "it is about the growth of Europe but also Europe's folly."



A visitor looks at a model of the A400M at the International Aerospace Exhibition ILA at Berlin's Schoenefeld airport May 7, 2002. REUTERS/FABRIZIO BENSCHE

UP FROM THE ASHES

The only markings on the grey outer skin of the A400M in Berlin this week will be the national flags of buyer countries -- a hint at the complicated politics and bureaucracy that have continually flawed Europe's efforts in defence cooperation.

Arguments over who is to blame for letting Europe's biggest single defence contract degenerate into such a mess that it threatened Airbus's future are unlikely to end with the long-awaited first public fly-past. Much of the mismanagement and inefficiencies are laid out in a leaked 2009 audit.

A Reuters investigation into the A400M reveals that having meddled in designs, governments had little idea how their down-payments of 6 billion euros were being spent until little more than 6 months ago. Talks to rescue the project and shore up Airbus parent EADS were marked by a clash of egos, royal intervention, blackmail and, perhaps most of all, a destructive nationalism that continues to divide Europe even when it is meant to be united.

"We are still miles away from an efficient and effective European defence procurement," concedes Airbus Chief Executive Tom Enders. "If significant issues arise, if the stakes are high, national decision-making prevails and overrules European bodies."

It wasn't meant to be like this. The idea for a new troop plane was born in the Cold War 1980s to meet the pressing demand in Europe for greater mobility and lifting power. Its designers -- both political and actual -- came from a generation of leaders who deliberately tied once-rival wartime aircraft factories into a unified peacetime industrial venture.

Designs for the plane, originally called Future Large Aircraft, were fleshed out in the 1990s to fill a gap between the Lockheed Martin C-130 Hercules tactical transporter and the Boeing C-17, a large strategic transporter jet. Politically it marked a step away from dependence on the United States and pushed a vision of

pan-European defence, extending important but smaller gains in fighter jets. Importantly, it would also provide thousands of industrial jobs.

By the mid-1990s, following several false starts, the countries backing the project called in Europe's commercial plane maker Airbus, made up of interests representing France, Germany, Spain and the UK. Could Europe's answer to Boeing build the new troop carrier?

"WE ARE STILL MILES AWAY FROM AN EFFICIENT AND EFFECTIVE EUROPEAN DEFENCE PROCUREMENT."

Airbus boss Jean Pierson took one look at the plans and exploded. The politicians were telling him that the new plane would deliver a great leap forward in European defence capabilities. But Pierson saw something different: an unwelcome new ingredient in a carefully refined industrial recipe that had made Airbus jetliners a serious rival to Boeing. "Never! I don't want to hear about this plane," Pierson told the board. "We do civil aircraft."

Pierson was yanked back into line by the consortium's shareholders and in 2003, long after he had retired to his fishing boat, seven NATO allies placed a final order for 180 A400Ms. The planes would be built in Spain and would cost just over 100 million euros each. France would get the first plane in 2009.

COOPERATION PROBLEMS

Pierson's prediction that the A400M would hurt Airbus quickly proved right. It wasn't just the complicated politics behind the plane, but its tangled engineering. Often it was both.

Most aircraft engineers are reluctant to put a new generation of engine on an all-new plane. They'd prefer to stick with an existing engine to reduce risk. But when Pierson's successor Noel Forgeard ordered engines off the shelf from Pratt & Whitney Canada, European politicians cried foul, accusing Airbus of exporting defence jobs abroad.



British Defence minister Geoffrey Hoon, his German counterpart Rudolf Scharping, Belgian counterpart Andre Flahaut and French counterpart Alain Richard sign an interim agreement to buy A400M planes in Brussels, 18 Dec. 2001. The final contract was signed in 2003. REUTERS/FRANCOIS LENOIR



A worker walks towards the fuselage of an A400M at the Airbus plant in Bremen, northern Germany March 28, 2007.
REUTERS/JOERG SARBACH/POOL

The fight -- a parallel of the current row in Washington over the possible purchase of U.S. refueling tankers from Airbus -- ended with the formation of a new European engine consortium made up of Britain's Rolls-Royce, Snecma (which later merged with Sagem to form France's Safran SAF.PA, MTU Aero Engines of Germany and Spain's Industria de Turbo Propulsores.

These firms had spent decades fighting national rivalries. Now they were supposed to cooperate on building the largest and most powerful turbo-prop engine ever seen outside the former Soviet Union. It wasn't the cheapest or most sensible option, but that didn't matter. "Politicians could not keep their fingers off the project," says Nick Witney, ex-chief executive of the European Defence Agency and a former UK defence official.

Nor could the military. The defence departments of the project members loaded up the A400M with optional extras, making it a juggernaut of conflicting requirements even before it left the drawing board. They wanted its own specially designed crane, ground-hugging capabilities owing more to modern missile technology than an airplane and a futuristic contour-tracking system able to read the landscape like raille.

"Over-ambition is the hallmark of every military project," says Witney, who is now a senior fellow at the European Council on Foreign Relations. But the A400M was in a different league.

All that, and wrangles over what type of armoured vehicles the A400M should carry, pushed up the cost. It didn't help that the countries behind the plane had locked Airbus into a rigid fixed-price contract. Arms makers normally charge for their costs plus a guaranteed profit. Airbus had a reputation for delivering on time and on budget, so all sides thought the military planners and commercially savvy executives would keep each other in check. How could the continent

that built high-speed trains and Ariane rockets fail to build something as apparently simple as a flying truck?

SOFTWARE MELTDOWN

In fact, the A400M is a surprisingly complex aircraft -- and defence deals rarely run to plan. In 2000 -- driven by the aim to make Europe's industries more competitive with those in the United States -- French, German and Spanish aerospace interests merged to create EADS. The huge new company now controlled Airbus, which soon became obsessed with a project that matched its global ambitions: the creation of the A380, the world's largest commercial airliner. In service since 2007, the superjumbo would leave a deep financial mess at Airbus and cost Forgard his job.

Unnoticed through a string of management upheavals, the A400M was also slipping silently out of control.

"POLITICIANS COULD NOT KEEP THEIR FINGERS OFF THE PROJECT."

First, were the software problems. Schooled in secretive defence projects, the engineers had failed to meet the very different civil documentation rules required by EASA. There was little choice but to retrace every step of their work on the complex software. Airbus, the company building the A400M, was horrified by the revelation, as were the three European companies that together with MTU made up the consortium building the plane's engine. When it failed the EU inspection, "that was the moment we knew something was seriously wrong," a top executive told Reuters.

At first, Airbus panicked. "They used all the classic tools: We'll sue -- everything like that," said one project insider.

But the engine consortium argued that there was nothing they could do. "Kill us if you like, we haven't got it," the engine makers told Airbus officials. After a while, said one insider, Airbus realised the threats weren't working. "They realised they needed the (software) guys."

Pressing on managers' minds was a deadline of March 2009. If the plane did not fly by then, EADS could be forced to repay 6 billion euros of advances plus penalties. EADS suspended the first flight and sent a Mayday to its buyers. "In September 2008 we received a letter from Airbus Military. They needed a lot of money but they gave us no figure...It was only very late in the talks that we came to know," said a source with a buyer country.

As well as money, EADS and Airbus needed more time. In January 2009, EADS Chief Executive Louis Gallois took a politically astute gamble and called for a contract renegotiation. The first plane would not be delivered until three years beyond the still unscheduled maiden flight.

THE PRINCE AND THE PARATROOPER

In the Swiss resort of Davos that January, Airbus chief executive Tom Enders put a brave face on the global financial meltdown hitting airliner orders and declared Airbus was "not going out of business". Privately, though, the lean former German paratrooper was worried the chaos surrounding the A400M could paralyse Airbus.

Worse, Carlos Suarez, the Spanish executive in charge of the project, was not answering emails or returning calls. Enders grabbed his Blackberry and fired off an email to Suarez: "I want you to call me now."

Officials familiar with the incident differ over what happened next. Some say Suarez replied; others that he didn't. Whatever the case, Enders soon sent another message: "I want you in my office tomorrow



Spanish King Juan Carlos greets spectators from a A400M military aircraft after its presentation in Seville, southern Spain June 26, 2008. REUTERS/MARCELO DEL POZO

morning." Within days the Spaniard was out of a job and political tremors were shaking Europe's political classes.

As one executive puts it: "That is when the Spanish war began." Suarez could not be reached for comment because the aerospace supplier he has joined did not answer calls.

For years, Spain had felt treated as a second-class citizen within EADS. The Madrid government owns just five percent of the company; real power lies with France and Germany. The A400M was Spain's chance to change that. The country had won applause for its investment in composite carbon technology for airliners and the troop carrier was to be assembled in a state-of-the-art plant in the Spanish city of Seville rather than Toulouse or Hamburg, where Airbus's commercial planes are finished.

"THAT IS WHEN THE SPANISH WAR BEGAN."

But now the Spanish unit was on a collision course with Airbus headquarters in France over the way it was managing the A400M. Backed by the EADS board, Enders proposed bringing supervision of the A400M project back to France, infuriating the southern nation and threatening to stall the project yet again. A way ahead only appeared when German President Horst Koehler, who stood down just last week, and Spanish King Juan Carlos, intervened during a Spanish-German business forum in a wood-panelled room at the Madrid stock exchange.

"I read you have some issues in Spain. Would you like to update us?" Koehler asked Enders over a banquet. An official present at the meal told Reuters that Juan Carlos, who trained as a military helicopter pilot and often speaks proudly of Spain's aviation achievements, at first appeared reserved, aloof.



Airbus Chief Executive Tom Enders poses in front of the Airbus A400M military transport plane before a news conference in Seville January 12, 2010, REUTERS/MARCELO DEL POZO



The A400M military aircraft is unveiled during its presentation in Seville, southern Spain, June 26, 2008. **REUTERS/MARCELO DEL POZO**

As Enders spoke earnestly of his passion for flight and his own helicopter licence, though, the temperature thawed. "I like helicopter pilots. Let's fly together," Juan Carlos told Enders, according to the official present. The monarch listened as the German executive outlined the stakes involved in the A400M project. "Come back and see me in two weeks," Juan Carlos told Enders. Spokespeople for the King, Koehler and Enders all declined to comment.

Enders and Juan Carlos held further undisclosed talks at the Zarzuela Palace, a royal residence on the outskirts of Madrid. Soon after, the Spanish EADS unit responsible for the troop carrier was officially renamed Airbus Military and began reporting to Toulouse, as EADS wanted. Spain would keep day-to-day control of all military transport projects including the A400M and the Airbus aerial tanker. In a move that might have been part of the peace deal, Spain later also doubled its share of allocated work on the next Airbus passenger jet.

EADS parachuted in Domingo Urena-Raso to lead the re-named unit. The tough but charismatic Spanish engineer had been Airbus's restructuring chief. He quickly overcame Spanish fears that he had "gone native" in Toulouse, and coaxed the industrial programme back to life.

A DAY IN PROVENCE

There was still one problem: ever-rising costs. If a bank robber stole in 100 euro notes the amount that Europe's troop plane had gone over-budget, an A400M would be unable to lift the weight. To perform the getaway, the robber would need a larger Boeing C-17.

The almost 8-billion-euro cost blowout may pale next to U.S. projects such as the Joint Strike Fighter, but it's easily enough to rattle debt-laden Europe. By early last year, buyers were resisting talk of renegotiating the price of each plane.

Britain in particular was angry; Quentin Davies, the UK's then defence procurement minister, threatened to pull the country out of the A400M. The former diplomat and banker privately worked out a deal that allowed Britain to commit to the project without increasing its bill. Rather than put up new cash in any rescue package, London would trim its order of 25 aircraft without claiming a refund.

"I LIKE HELICOPTER PILOTS. LET'S FLY TOGETHER."

The deal -- spelled out in a side letter with EADS -- kept Britain onboard. But it also sparked fears of a wave of competing special demands, which could pull the project apart. Rushing to lock in orders, French Defence Minister Herve Morin, a slick centrist politician seen as a possible future presidential candidate, organised a summit on the hilltop estate of the late drinks magnate Paul Ricard. The estate, outside Marseilles, is home to a track that the King of Pastis built to indulge his love of motor racing.

With negotiations stalled, Morin pulled out his mobile and called EADS boss Gallois in Munich. The modest but steel-willed French executive wanted assurances that other nations would not overturn the British deal. Morin circled the table so that one by one each NATO member could exchange assurances with Gallois. The intervention paid off and nations formally agreed to open new talks on money.

But first, the buyers ordered an audit of Airbus, which disclosed the full horror of the A400M finances. EADS had already written off 2.4 billion euros but the project was still 5.2 billion short, a sum EADS said governments should fill by paying more for each plane.

That was not all. When every possible risk was added in, the programme was a staggering 11 billion euros in the red - nearly as much as EADS's market value. The PricewaterhouseCoopers audit fingered EADS for management blunders, poor accounting systems

and sloppy records. Worse still for investors, it suggested EADS might suffer a drop in its credit rating. Crucially, though, it failed to give a clear-cut endorsement for the price increase the company wanted.

A furious, private war of words ensued between E, which thought PwC had overstepped its terms, and one of its biggest accounting firms. PwC has declined to comment on the review.

MAIDEN FLIGHT

By last December, the A400M was finally ready to fly, two years later than planned. Airbus pushed its publicity machine into overdrive and two weeks before Christmas, Captain Ed Strongman squeezed up a narrow aisle past racks of test equipment and took his place inside a cockpit with computer screens and a side stick, a reminder that Europe's newest warplane was a cousin of Airbus's "fly-by-wire" commercial aircraft.

INSIDE AN AGING EUROPEAN WAR HORSE

By Sabine Siebold

BERLIN - The A400M won't change how German troops land in a place like Afghanistan -- but it will change how fast they can get there.

Touching down in a war zone, especially a war zone flung across the Hindu Kush, is not for the fainthearted. You never know which way the pilot will choose to descend. If he goes for a combat descent, the plane will dive out of the sky, dipping its nose sharply towards the ground.

Sitting sideways on a bench on the Transall C-160, the A400M's chubby-nosed predecessor, your slide towards the front of the plane is stopped only by a simple strap around your belly. You feel a violent pressure in your ears. This is normally the moment when even the last sleepers wake. It is also the moment you might hear an explosion or two near the wings -- hot flares fired off to lure away any heat-seeking rockets shot at the plane.

Other times the pilot brings the plane down by executing a steep, tight corkscrew manoeuvre. Sometimes he descends by flying straight and turning corners, as if flying along the edges of a box. Other landings are as smooth and easy as the touchdown of a commercial airliner at the airport of a holiday resort. The element of surprise is deliberate: pilots in war try to avoid patterns.

Airlift is the long arm of military power. It is about getting boots and armour on the ground fast and keeping supply lines open. "If you can move troops and weapons quickly, it is one of the adages of war that you can do things with relative ease on day one that by day 50 are much more difficult," says Air Chief Marshall Sir Brian Burridge, who led British forces into Iraq in 2003 and is now at Italian defence firm Finmeccanica.

Everybody loves the Transall, but it struggles to get boots on the ground where it matters in 2010. Built during the cold war to serve in the European theatre, it has a short range, limited capacity and only two engines. Crucially, it cannot travel to the German camp in the northern Afghan town of Feyzabad because the climb out of the deep mountain valley presents too many risks for a plane with just two engines.



German Defence Minister Karl Theodor zu Guttenberg sits in a German Air Force C160 Transall plane, April 14, 2010. REUTERS/MAURIZIO GAMBARINI/POOL

Right now, the Germans have to fly to Feyzabad in transport helicopters which means a terrain-hugging flight 8 to 10 metres above the ground across mountains and valleys. If the soldiers want less of a roller coaster ride, they catch a lift on one of the four-engined Hercules owned by the U.S. or Canada. Inside, the Transall, a Franco-German joint venture which ended production in 1985, is pretty raw: naked craftsmanship without the nice covers, seats and carpets you expect on a commercial plane. Parachutes and ancient breathing devices hang from the walls of the plane.

There's no proper toilet. If you really need to go then head to the back of the plane and, right before the back ramp, turn left if you're a woman, right if you're a man. The loadmaster will flip down a plastic device for you, a kind of toilet seat with a box underneath, and pull a curtain for privacy. It's not as bad as it sounds -- you just have to make sure the curtain stays closed and the plane doesn't fly into turbulence.

The A400M won't be a huge step up -- military planes are not built for luxury. But where it matters, range and size, the new transporter can't come soon enough.

(Additional reporting by Tim Hepher; Editing by Simon Robinson and Sara Ledwith)

The flight was not perfect -- a faulty backup system caused problems. But Airbus had calculated a flight would create momentum that would make it harder for buyers to pull out. King Juan Carlos even turned up in Seville to watch the plane land.

Emboldened by a decision by France's market regulator to throw out charges of insider trading over A380 delays, the company decided to call the buyers' bluff over the A400M. "The blood pressure was up in the top management. The attitude was, if they won't talk to us before Christmas, there will be no talks after Christmas," one manager said.

EADS had two more reasons to speed things up. Its own auditors had pressured bosses to reach a deal or take a devastating hit in the company's accounts. As well, the window for a deal was closing ahead of UK elections expected in May. A new government was unlikely to make bailing out the A400M an early priority.

On New Year's Eve, Gallois authorised one more month of negotiations and Enders opened the attack. "We have had enough of these standstill agreements. Now it is time for some movement," he told German newspaper Die Welt. To the dismay of Berlin, Airbus signalled that without more money it would halt the programme or starve it of cash. "Germany had some problems with certain people of EADS who made aggressive public relations statements," Ruediger Wolf, state secretary at the German defence ministry, told Reuters in a recent interview. "Their main aim was to transfer the risk to the nations."

Enders remains unrepentant. "I am not paid to avoid conflicts, I am paid to avoid or mitigate unacceptable risks for my company," he told Reuters. "The purpose of my public statements back in January was to make customers aware that the situation of the A400M programme was untenable and posed grave dangers for the whole of Airbus."

BERLIN SHOWDOWN

With concerns about Europe's finances growing, final negotiations began on January 15 at the defence ministry in Berlin. The meetings took place in a room named after Colonel von Stauffenberg, a hero of the 1944 bomb plot against Adolf Hitler. A nearby memorial commemorates the German resistance.

Inside the meeting, Airbus, one of the great symbols of Europe's peaceful reconstruction was under discussion. Germany's state defence secretary Wolf, a reserved official with a forensic eye for detail, took the chair and seized the initiative in a calm, measured voice. "We would like you to make us an offer we can agree to," he said, according to delegates.

EADS officials insisted they needed their full 5.2 billion euro shortfall covered. The buyers disagreed. "Everyone threw their grenades," said one person of the discussions, which ran intermittently over



Test pilot crew talk minutes before the take off of Airbus A400M military transport plane in the Andalusian capital of Seville on December 11, 2009.. REUTERS/AIRBUS MILITARY/SYLVAIN RAMADIER, HANDOUT

five weeks. Germany, whose industrial base depends on hundreds of small suppliers, insisted EADS should agree to pass on part of any bailout to its suppliers.

"I AM NOT PAID TO AVOID CONFLICTS, I AM PAID TO AVOID OR MITIGATE UNACCEPTABLE RISKS FOR MY COMPANY."

At the final meeting, Gallois and Wolf squabbled as a draft took shape on a laptop. The cautious German defence chief and former French mandarin, whose careers had been largely spent bringing their respective states together, wrestled over the last comma. At one point, Germany issued a dramatic threat. "I stopped this at the last minute. I said 'If you don't agree I will stop this now,'" Wolf told Reuters.

Finally, in a classic European fudge, a deal to protect collective self-interest and save 10,000 jobs was forged. This time the paperwork was clever: 2 billion euros in direct aid plus another 1.5 billion framed so as to allow EADS to count it as revenue now and pay it back later.

EADS does not yet have its money, but Europe this week gets to see its new plane. For all its problems, the A400M should be a huge leap forward for European defence and could yet become a symbol of a more united continent. But as its rough ride so far shows, the plane's existence has just as much to do with jobs, parochialism and politics.

(Additional reporting by Matthias Blamont in Paris, Maria Sheahan in Frankfurt, Tracy Rucinski in Madrid, Rhys Jones and Jason Neely in London, Reuters bureaus; Editing by Simon Robinson and Sara Ledwith)

FRAUGHT JOURNEY OF A400M TRANSPORT AIRCRAFT

Here are the key events in the long-delayed project:

- 1982 -- Aerospatiale, British Aerospace, Lockheed and MBB set up a project -- later known as the Future Large Aircraft (FLA) -- to develop a troop transporter to replace the C-130 Hercules and the Transall C-160.
- 1989 -- Lockheed pulls out of developing an upgrade to its own C-130 Hercules transporter.
- 1999 -- Partners including BAE Systems, Daimler Chrysler Aerospace (Dasa), France's Aerospatiale Matra and Spain's Casa establish Airbus Military Company to develop the A400M.
- 2000 -- Airbus says it will start the industrial phase of the A400M project by March 2001; first deliveries are expected in 2007.
- June 2001 -- Eight countries -- Germany, France, Spain, Britain, Turkey, Belgium, Portugal and Luxembourg -- sign an initial letter of intent to buy 196 A400Ms.
- Nov. 2001 -- Germany calls off official signing ceremony for the project due to a parliamentary confidence motion over German plans to deploy troops in Afghanistan.
- Dec. 2001 -- Seven nations agree to buy the A400M, though plans still hinge on German parliamentary approval.
- Feb. 2003 -- Italy and Portugal cancel orders for the A400M.
- May 2003 -- Airbus bows to government pressure to appoint a European consortium to build new engines for the A400M, reversing a decision to buy from Pratt & Whitney Canada.
- May 2003 -- Germany's parliament approves the purchase of 60 A400Ms, cut from 73, removing the final hurdle for the project.
- Dec. 2004 -- South Africa orders 8 A400Ms.
- Dec. 2005 -- Malaysia orders 4 A400Ms.
- March 2007 -- Airbus takes 352 million euro (\$508.6 million) charge to cushion A400M overruns.
- Nov. 2007 -- EADS warns it sees charges of up to 1.4 billion euros from A400M delays.
- Sept. 2008 -- EADS postpones first flight of A400M indefinitely in row over engine development.
- Jan. 2009 -- Airbus chief Thomas Enders says the A400M project is "mission impossible" without contract changes.
- July 2009 -- The European ordering nations agree to renegotiate the cost and scale of the project.
- Nov. 2009 -- South Africa cancels its A400M order.
- Dec. 2009 -- Germany confirms the A400M project is 5 billion euros over its production budget.
- Dec. 11, 2009 -- A400M makes its maiden flight in Spain. On the same day, Reuters reports auditors have identified 11 billion euros of total cost overruns.
- Jan. 20, 2010 -- A leaked draft summary of the audit report by PricewaterhouseCoopers blames Airbus managers for huge cost overruns on A400M.
- Feb. 4, 2010 -- More talks held in Berlin between EADS and seven NATO nations to resolve the funding dispute.
- Feb. 24, 2010 -- Spanish defence minister Carme Chacon says EADS and government buyers have reached the "basis of an agreement" for a 3.5 billion euro bail-out, including 2 billion euros of direct aid and 1.5 billion in financial support.
- March 5, 2010 -- A deal is struck to save the project from collapse. The agreement aims to preserve 10,000 jobs but will force EADS to take 1.8 billion euros of provisions for its share of the overrun, pushing the company to an operating and net loss for 2009. German Defence Ministry says the first deliveries of the A400M should now happen in 2014.
- March 29, 2010 -- Britain says it will trim its order for the A400M to 22 from 25 to finance its share of an agreed increase in the price of the project.
- June 1 -- EADS CEO Louis Gallois says two planes in testing are providing good results and that two more should enter testing this year.



The crew of the Airbus A400M plane pose with Spanish King Juan Carlos, members of Spanish government and members of Airbus Military company after its maiden flight in the Andalusian capital of Seville, Dec. 11, 2009. REUTERS/MARCELO DEL POZO

(Writing by Maria Sheahan; Additional writing and editing by David Cutler, London Editorial Reference Unit)

SIZING UP THE AIRBUS A400M "GRIZZLY"

Europe's new A400M was designed to exploit a gap between the Lockheed Martin C-130 Hercules and the larger Boeing C-17. Here are details on plane nicknamed the "grizzly" by test crew after its burly design.

* **DESIGN** -- The A400M is the first high-wing aircraft with a T-shaped tail ever built by Airbus, known for its classic low-wing airliners. Some 30 percent of the wide-body plane is made of weight-saving carbon-fibre composites including most of the wings. As on many modern airliners, pilots control the plane using electronics or "fly-by-wire" systems.

* **ENGINES** -- The four 11,000-shaft-horsepower P400-D6 engines were developed by a European team including Rolls-Royce, Safran and MTU Aero Engines. A local engine was chosen after governments vetoed Airbus's choice of an imported engine made by Pratt & Whitney Canada.

* **PROPELLERS** -- Each engine has eight Ratier-Figeac propeller blades 5 metres tip-to-tip. The scimitar-shaped blades on each pair of engines rotate in opposite directions, making the wings more efficient and saving weight, enabling the plane to fly with a smaller rudder. If all engines turned in the same direction and one failed, a bigger rudder would be needed to keep the plane stable.

* **SOFTWARE** -- Much attention has been given to crucial engine software -- FADEC (Full Authority Digital Engine Control). Writing and documenting the software to civil certification standards contributed to delays. The code was twice as long as that on the world's largest civil jet engine.

* **PAYLOAD VS RANGE** -- With a typical 20-tonne payload, the A400M can fly 3,450 nautical miles (6,450 km). With 30 tonnes on board its range is 2,450 nm (4,500 km).

* **WHAT IT CAN CARRY** -- The 340 cubic metre hold can carry an NH-90 transport helicopter, or a CH-47 Chinook, or a container truck or two infantry vehicles. It has room for 125 stretchers plus an intensive care unit. It can hold 116 soldiers or fully equipped paratroopers. Airbus says its size allows it to combine strategic and tactical roles, but competitors say this makes little sense as the competing Lockheed C-130J and Boeing C-17 already overlap.

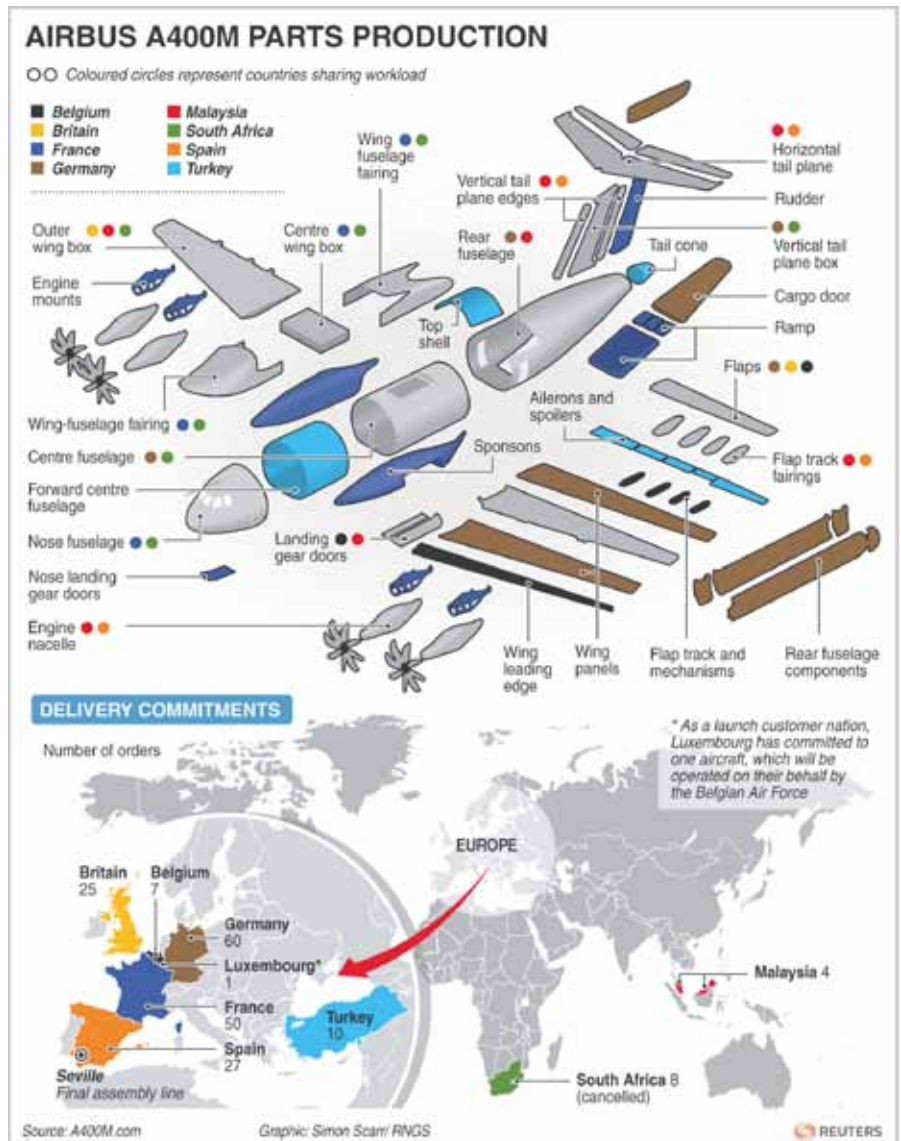
* **WHERE IT CAN LAND** -- Airbus says the 12-wheel landing gear allows the A400M to land on soft and rough airstrips as short as 750 metres (2,500 feet).

* **SPEED AND HEIGHT** -- The maximum speed of Mach 0.72 corresponds to 420 knots "true air speed" at medium altitude. At low altitudes it can slow to less than 110 knots to refuel helicopters -- that is 20 knots slower than the approach speed of a small jetliner.

* **TANKER** -- It doubles as a refuelling tanker and can be refuelled midair.

* **COMPETITION** -- The A400M fits into a niche between the Lockheed Martin C-130 Hercules turbo-prop and the Boeing C-17, which is also capable of landing on semi-prepared airstrips. In practice all three compete to some extent, market experts say. A spokesman for Lockheed Martin said the C-130J, a modernised version of which first flew in 1996, can carry 95 percent of what the A400M is specified to do.

(Source: Reuters/Airbus Military/industry. Writing by Tim Hepher and David Cutler, editing by Simon Robinson and Sara Ledwith)



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