BUILDING THE G650

From its inception and “clean sheet” design to the marketing and manufacturing of Gulfstream’s new flagship aircraft, the creation of the G650 is a story about the accomplishments of dedicated employees working together to craft the next world standard in aviation.
We’re delighted to bring you the first issue of Waypoint, the magazine for Gulfstream employees. We selected Waypoint as the name of our magazine for several reasons. A waypoint is a navigational aid. In aviation, it’s a predetermined geographical position that often indicates a change in direction, altitude or speed along the flight path. In a broader sense, it marks the traveler’s progress and helps point the way home.

Waypoints are important not only in navigation, but in our lives as well. They help us to evaluate how we’re dealing with a challenge and whether we need to take a fresh approach. They lend perspective to our efforts.

One of our greatest efforts this year has been the G650 project. In our cover story, we focus on how our engineering, marketing and production teams came together to design, engineer, build and promote the G650, the new flagship of the Gulfstream fleet. Our new ultra-large-cabin, ultra-high-speed G650 is the finest airplane in the sky. It is the gold standard of our industry.

In our second feature, we travel to Romania where Appleton employee Norm Kopesky labors year after year, relieving the hunger and decrepit living conditions of children who reside in poor communities and gypsy camps. Through their efforts, Kopesky and his fellow volunteers bring hope and encouragement to those with precious little to believe in.

Waypoint is our means of sharing the Gulfstream culture with our employees around the world. It’s our way of strengthening the common bond that joins us. We hope you like the first issue.
BIGGER, FASTER, FAROTHER
THE EVOLUTION OF THE G650
The flagship of the Gulfstream fleet started with a clean sheet of paper. We tell how engineering, marketing and production came together to build and promote the G650.

APPLETON’S KOPESKY OFFERS HOPE TO ROMANIAN CHILDREN
For 13 years, Appleton’s Norm Kopesky has been working to improve the lives of orphans and other children in central Romania. His story is proof that one person can make a difference.

BRINGING IT ALL TOGETHER
Our recently completed Service Center in Savannah is the largest maintenance facility in the world built specifically for business jets. We take you on a tour.

I REMEMBER…
Al Wright, senior manager in the Office of Export/Import Compliance, recalls the day he started at Gulfstream more than 40 years ago.

THE ABC’S OF THE ODA
FAA certification as an ODA (Organization Designation Authorization) is a great honor. Last year, Gulfstream became the first business jet manufacturer to earn the coveted distinction.

DESIGNING THE IDEAL PAINT HANGAR
Before designing Gulfstream’s new paint hangar in Savannah, employees asked paint suppliers to describe the ideal painting environment. Then they created it.

ON THE JOB WITH…
Ron Batiste performs his job as a senior buyer while promoting a Lean manufacturing environment at the GDAS West Palm Beach facility. We follow him for a day.

GULFSTREAM SCHOLARSHIPS HELP STUDENTS SUCCEED
The Gulfstream Goldie Glenn Scholarship helps ease the financial burden for the son of a Dallas employee. We introduce you to Khiem (David) Nguyen.

MEXICALI WINS COVETED SHINGO PRIZE
Our Mexicali facility has been honored with an award described by Business Week as the Nobel Prize of manufacturing. Here’s why.
After all the research, planning and discussion, at the end, the fate of a $60 million airplane came down to inches.

The year was 2003, and Gulfstream was looking at creating the next generation business jet — something to surpass its own superior G550. Based on focus groups conducted with customers and an analysis of the competition, the design direction of the new plane was clear and concise.

“Bigger, faster, farther,” says Pres Henne, senior vice president, programs, engineering and test. “That’s what our customers wanted and that’s what we were challenged to deliver.”

A bigger airplane, based on the size of the fuselage, was the starting point. The faster and farther attributes would need to be engineered to accommodate the larger size. So the question was, how big?

“All our planes, from the G1 to the GV, had the same size fuselage – 94 inches,” Henne says. “The width of our aircraft had been a point of discussion for many years, especially when we considered the competition. Dassault’s large cabin products were 98 inches and Bombardier’s were 106. Although we wanted to challenge both, the decision on how wide to go was based on the voice of our customers and the performance expectations of the aircraft – being able to go faster and farther than any other business jet. We finally agreed on 108 inches.”

Customer demand for a faster plane that can go farther was partly the result of a changing business climate, one where markets span the globe and speed is often of the essence, making the adage “time is money” a reality. Ultimately, the decision was reached to set the maximum operating speed of the G650 at Mach 0.925.

“Now that’s a funny number. Why did we pick 0.925? The fastest civil aircraft in service today is the Cessna Citation X. It has a Mach of 0.92. So we said, ‘If this is going to be bigger, faster, farther, we might as well make it the fastest civil aircraft in service. We’ll set it at 0.925,’” Henne says with a smile.

Range also was an important factor. Because the goal was to increase the distance the G550 can travel, the decision was made early to make it 7,000 nautical miles (for example, from Los Angeles to Cairo), which is 250 miles farther than the range of the G550, and at a higher speed.

When the engineers first began the G650 design, they thought they might be able to utilize aspects from Gulfstream’s previous models, but it soon became apparent that a whole new design was required.

“Typically the way a new airplane evolves, especially the GIV and GV, is you start with the same fuselage, same cross section, and the same nose and tail,” Henne says. “It’s less costly when you start with one design and then modify it to fit what you are trying to accomplish. But the G650 was
bigger, faster, farther

THE EVOLUTION OF THE G650
so radically different that we decided to start with a ‘clean sheet’ design. In other words, start from scratch.”

But not every aspect of the plane’s design changed.

“We saved the same windshield,” Henne says with a laugh.

Throughout the early years of the creation of the G650, many other teams and organizations were working in tandem with the engineering group – most notably, marketing and sales and manufacturing. Obviously, the best-designed airplane in the world will not be successful if nobody wants to buy it, and even if people want to buy it, what’s the point if it can’t be built?

Marketing and sales’ role in the development of the G650 started with research in the planning phase. Customer demand, along with competitive challenges, truly shaped the design of Gulfstream’s new flagship airplane.

“We solicited input from a number of different sources regarding the design of the G650,” says Larry Flynn, senior vice president, marketing and sales. “We listened to a number of our customers through our Customer Advisory Board and to others through Leadership Team interaction and special briefings. So there was a good deal of valuable input. Our Marketing group also provided insight based on competitive analysis. That was important because we wanted to have the best.”

Gulfstream already had the best in class with the G550, so the teams knew they had to outdo themselves. It was a combination of factors that eventually led the company to develop the best airplane on the market and, by extension, to take advantage of an incredible opportunity to create a new market segment, according to Flynn.

“As it turned out, we created a whole new market with demand far in excess of what we ever fathomed,” he says. “We knew over time we would sell more than 200 of these; again, over time. But, we had no idea we would get almost 400 Letters of Intent, or formal acknowledgements of interest, the first day.”

Part of their success was due to a newly developed order process. There was much discussion regarding “who gets the first, the second or the third one.”

“There was no clear answer to that, because everybody had a compelling reason why they wanted one of these aircraft,” says Flynn. “So it really comes down to, if you’re going to spend that kind of money creating an airplane, do you want to give it to your existing customers first? Or do you want to bring new customers into the Gulfstream family? So, we ended up opening it up to the world, with no favoritism.”

The order process involved customers sending in a nonrefundable deposit on April 15, 2008. Their delivery sequence number would be in the order that the wire transfers were received at Gulfstream’s banks. By the time Flynn and his team came to work that morning, nearly 400 wire transfers had come in – an astounding number, exceeding everyone’s expectations.

“We knew we had a challenge because so many wire transfers were received within a very short period of time, leading to a growing level of frustration by our customers who expected to land an earlier delivery position,” Flynn says.

“With 400 potential order holders, that would have put the order book out to 2023. So now we had to give the news to these 400 people and tell them what
their order sequence number was. So it ranged from very happy to very disappointed. Very happy at number one, very disappointed at 400. We had a lot of different conversations in between those two numbers.”

As a result of the order book being so far out, nearly half the potential customers eventually dropped out. That still left an extremely robust 200 orders, extending out through the end of 2016. And, says Flynn, there is still significant additional demand.

With that many airplanes ordered, the emphasis quickly shifted to manufacturing. The G650 wasn’t like any of the company’s other planes. It had a “clean sheet” design and a complementary sales and ordering process; the manufacturing aspect — including the new plant itself — would end up being a “clean sheet” process, as well.

“The development of a new product includes decisions on fabrication, assembly and testing processes,” says Dennis Stuligross, senior vice president, operations. “With the G650, we had a unique opportunity to do this from the outset. The G550 and the G450 are built off the GV and GIV, and they were designed and built off preceding aircraft. Therefore, we are continuously looking for ways to improve existing processes.”

The G650 is a new design built on 3-D models instead of drawings. Utilizing those models allowed Gulfstream to do something it had never done before.

“Instead of having drawings, we have electronic models that represent all the features of the parts, assemblies and installations in 3-D space,” Stuligross says. “So it has thickness, it has length, it has width, and it has weight. Electronically, you can see exactly what it is and where it goes. Everybody is using the same data to create the product. The accuracy is incredible. Therefore, you are able to build tools and product from the same model and the assembly operations will happen without interference.”

Because the G650 is an addition to Gulfstream’s product line, not a replacement (the G550 and G450 are still being manufactured on the Savannah campus), a new building would need to be constructed. Up to that point, Stuligross admits, they were still thinking of the design based on their previous experience; having to fit new processes for new planes into existing brick and mortar.

“We had always approached it from the perspective, ‘Here’s the building, fit your process into that space and make it work.’ So the opportunity to build a new product line with a new building was a chance in a lifetime,” Stuligross says.

When the team was considering buildings and began bidding on contractors, they were still thinking in terms of what the building would look like, and then how to put the process inside it. But this, like everything else connected to the G650, was destined to be very different.

“In collaboration with the building contractors we established what we wanted,” Stuligross says. “We needed to first define the manufacturing and material handling processes and then the building that would enclose them. It was that simple.”

Stuligross remembers that day with delight.

“It was just a telling moment, it was one of those ‘aha!’ moments,” he says. “From that point on, we put more detail into how we wanted this process to flow.

It was a ‘clean sheet’ for the tools, the manufacturing and support processes and the building.”

As part of that planning, teams of mechanics who work on the G550 and G450 were brought together to help define the future environment.

“We asked, ‘What do we need to do? How should the tools be built? How should the materials flow?’ We needed to involve everyone to create the best environment for fabrication and assembly,” says Stuligross. “The employees’ involvement was invaluable, absolutely invaluable.”

Begun in March 2007, the 313,000-square-foot G650 manufacturing building was completed in about 12 months, a month ahead of schedule. Approximately 300 employees work in the building today. That number will likely remain steady for the balance of 2009 and for a good portion of 2010, with the numbers ramping up beginning in 2011. The production of the G650 will eventually encompass employees from several sites, including Savannah, Mexicali, Long Beach and Appleton.

Every employee should take pride in this incredible new plane, and know they had a part in its success, says Flynn.

“It’s a collaborative team effort, of all 10,000 employees, that makes something like this happen,” he says. “At the end of the day, it’s the people who differentiate this company, and who have developed the best brand in the industry. That’s what it’s all about.”

On a crisp and sunny fall morning last Sept. 29, following the tremendous effort, inspiration, collaboration and hard work of Gulfstream employees, the day of the G650 rollout finally arrived. As the massive hangar door slowly opened and the audience of thousands craned their necks to catch a first glimpse of the awesome aircraft as it appeared under its own power, loud and enthusiastic applause erupted from those in attendance. →
The newly completed Service Center in Savannah is a big success — and we do mean big.

At 679,199 square feet, the building, which is situated on 81 acres adjacent to the Savannah/Hilton Head International Airport, is huge. So big — it’s a quarter mile from one end to the other — it can fit 36 large-cabin aircraft in its four hangars. In fact, the Service Center is the largest maintenance facility in the world built specifically for business jets.

“The investment in this building is one more example of Gulfstream’s commitment to providing the highest level of service to our customers, while giving our employees an outstanding facility to work in,” says Darrell Frey, general manager, Savannah Service Center.

From concept to completion, the Service Center was five years in the making. The first phase, which opened in August 2007, has offices, repair shops, a fuel farm, an engine run-up area and a cafeteria, in addition to two hangars with room for 18 large-cabin jets. The second phase premiered at the end of October and is almost a mirror image of the first phase, with many of the same features, including room for another 18 large-cabin airplanes. The Service Center’s function is to provide maintenance, overhaul, testing, inspections, equipment, installations and refurbishment of Gulfstream aircraft.

One of the best aspects of the new building, according to Mitch Rykard, integrated service team manager, is the consolidation of the product support function in the Savannah area. Not only does this encompass the Service Center and the back shops that support the Service Center, but also the worldwide headquarters for the Product Support organization. That includes publications, technical operations, customer communications, and all other components of the organization.

“For the first time, all of our people and services are under one roof,” Rykard says. “Now we can solve problems face-to-face as part of a complete team.”

Carla Finklin, avionics/electrical tech lead; Fernando Palenzuela, master craftsperson; and Jeff Wagner, service team manager, all agree that having the whole team together at the new Service Center has improved their jobs and their ability to serve their customers.

“It’s so much easier to work with the same people and the same teams,” says Finklin, who has worked at Gulfstream for 10 years. “You can really support each other. And, having everything you need for your job consolidated in one place is fantastic.”

Prior to the completion of the new Service Center, the back shops and other support departments were scattered throughout the Savannah campus, which was not convenient for employees or customers.

“If a customer wanted to go look at his landing gear, he had to go to the hydraulic lab, which was located in another building,” says Wagner, who has been with the company for nine years. “Now, they don’t even have to leave the facility. So it’s much more convenient for the customers and for us.”
Having everything employees need to perform their jobs in one place – including the hydraulic lab, composite shop, wood shop, upholstery shop, avionics lab, battery shop, paint shop and engine shop – has greatly streamlined the process, according to Palenzuela, a nine-year Gulfstream employee.

“Now everything is integrated in the same building,” Palenzuela says. “It has made me more efficient in my job.”

The only aspect of the new Service Center that has taken the employees a little time to get accustomed to is the vastness of the space. When asked if they ever get lost, all three answered in unison, “Yes!”

“Sometimes you get turned around in the stairwells, but we’re learning our way around,” Finklin says with a laugh.
In 1967, the plant consisted of one building and a parking lot.

I REMEMBER...

August 21, 1967

It was my first day on the job. I was a 17-year-old kid, and I was excited, thrilled and a little scared, too. As I stood in line to get my photo taken for my personnel file, my slide rule tucked in my pocket and my heart filled with hope, I never dreamed that 42 years later I would still be working for the same company, and still be just as thrilled.

I had graduated from high school that May, and was working at a restaurant in Savannah. Our neighbor across the street told my dad about a new company in town that was hiring; he said that maybe I should apply for a job there.

I knew nothing about the company, Grumman Aircraft Engineering Corp. (which later was sold to Gulfstream Aerospace), but it sounded a lot better than my present job, so in June I went to the local employment office and filled out an application to register for training classes at Savannah Vo-Tech’s aircraft riveting school. Although the classes were paid for, it was still quite a sacrifice. You had to attend classes every day for two months, so you couldn’t work somewhere else. Even if you passed, you still didn’t know for sure if you had a job. But I passed, went through the interview process, and was selected to start the next week.

At that time, there were about 100 employees at the company. The manufacturing plant consisted of one building, which was air-conditioned. That was totally new for this city in 1967 – to have your workplace air-conditioned! Most people didn’t even have air conditioning in their cars or their homes.

That Monday I came to work at 7 a.m. and went directly to orientation in the cafeteria. We were so small that the president of the company, Corky Meyer, gave the presentation. Then it was off to have our photographs taken and get our badges. There was no need for a uniform since we didn’t have them back then. Next, they took us to the tool crib to get our tools – drills, bits and a rivet gun. The only thing I brought with me was my slide rule. You needed one because at that time many of the holes weren’t predrilled, so you had to get a copy of the blueprint and measure where the holes went.

Finally, they took me to my department. I would be responsible for assembling the tail section on the GII, the first turbine-powered business jet made by the company. That was scary. We were all new and had a lot to learn. All of the people I worked with were older than me. One of them, Avery Roberts, gave me the nickname “Young Bug.” I really looked up to the older guys. They showed me the ropes and helped me mature both at work and personally.

Back then, we could drink coffee and smoke in the work area. My “key man,” who today would be the assistant to the lead, loved Hank Williams, and sang the same song over and over again: “Hey good lookin’, whatcha got cookin’,
how’s about cookin’ something up with me?” Every day, there he was, smoking cigarettes, drinking coffee and singing that song. It didn’t take long until I knew all the words myself. I think I still remember them!

My new job doubled my income, which was pretty heady stuff for a 17 year old. Like many kids, my first purchase was a car. I bought a used car. Actually, I bought my dad’s car, a 1960 Ford Galaxy. It was turquoise blue with a white top and two antennas on the back. It was really sharp.

That first day of work I wore my badge home. Everyone did. It was like you were a big shot. We were all so proud. After all these years, I must say that every morning when I put on my badge, nothing has changed. I am still as proud to wear that badge as I was on August 21, 1967.

Al Wright is senior manager, office of export/import compliance. He intends to continue working for Gulfstream until he retires in 2017, when he will mark 50 years of service.
Appleton’s Kopesky offers hope to Romanian children
If you look at a globe, Wisconsin and the southeastern European nation of Romania appear to be half a world apart. But, for many children of this former Communist country who are living in poor villages or orphanages, the distance could be more aptly characterized as “a world apart” – not just in distance, but in outlook and opportunity. For the past 13 years, Appleton’s Norm Kopesky has been trying to reduce that gap.

Kopesky is the DAS administrator and ODA Site Program administrator for Appleton. He is responsible for obtaining FAA certifications and making sure all standards are met for products and services passing through the Gulfstream and General Dynamics Aviation Services facility.

During a visit to Europe, his church’s pastor met a couple who were trying to assist children living in poverty throughout Romania. Their vehicle was a summer camp that would broaden children’s experiences and offer them hope for the future.

Not long after the collapse of Communism and the fall of the dictator Nicolae Ceausescu in 1989, the rest of the world learned about the starvation and decrepit living conditions among Romania’s children. Because orphanages lacked resources, children’s physical and psychological needs weren’t being met. Even in the poor villages and gypsy camps throughout the countryside where children lived with their families, the poverty produced a culture that offered little psychological hope for an escape from those conditions.

Upon his return from Europe, the pastor described the efforts of the Romanian couple. As a result, Kopesky joined other members of the congregation in donating money to buy 25 tents so different groups of Romanian children could spend a week or two at the summer camp.

“I love hearing the sounds of the children playing – especially when so much of what they enjoy is what we take for granted.”

The next year, Kopesky and five other church members participated in a two-week fact-finding mission to determine if the church should develop a formal relationship with the couple assisting the Romanian children.

“Upon arriving in Romania, we found a cold, gray, militaristic society – left over from the Communist regime and years of economic deprivation – especially as we moved closer to the Russian border,” says Kopesky. “On the other hand, the people were incredibly warm and friendly. But their outlook on life was tainted by their culture and their experiences.”
By U.S. standards, the homes in the countryside were substandard – with broken windows and doors, holes in the roof, dirt floors, no running water, some lacking electricity.

The camp’s living conditions weren’t much better; but the tents provided shelter and the children were rewarded with three meals a day, free personal hygiene items, donated clothing and, most importantly, an altered perspective that would produce a glimmer of hope for their future.

“Some of the kids were just starved for attention,” says Kopesky, who lived in the tents, interacted with children, told and listened to stories, and completed projects designed to build confidence and demonstrate the importance of teamwork and compassion.

When Kopesky and the team returned to Wisconsin, they recommended developing a plan to begin supporting the Romanian couple’s activities – including helping to construct a permanent summer home to replace the tents. Shortly afterward, the church supplied the down payment to purchase two-and-a-half acres of land in central Romania, near the Carpathian Mountains, on which to locate the building.

The next year, and every year after that, Kopesky returned to Romania – continuing to work with the children or help with construction of the cement building, depending on the greater need. Although the building isn’t finished, it can now be used to house the children during summer camps.

“It feels good seeing them eat hearty meals and experience an environment different from the poverty of their everyday lives,” says Kopesky. “It is so refreshing to see how happy they are. I love hearing the sounds of the children playing – especially when so much of what they enjoy is what we take for granted.”

Now, 13 years later, the distance between Wisconsin and Romania is still more than 5,000 miles, but what has changed?

The camp’s permanent building, a large, two-story, concrete structure, is about two years from completion – still needing plumbing and lighting fixtures.

The Romanian economy has improved. Free from Communism, the country is now part of the European Union with even brighter economic hopes for the future. But big economic improvements haven’t trickled down to the rural areas and there is still mistrust of authorities, Kopesky says. Villages now have electricity and running water; but most residents don’t have refrigerators, freezers or microwaves.

But what about the element that drew Kopesky to Romania – the children?

The program has grown to 10 or 12 camps each summer – supporting approximately 600 children. Kopesky says they are more aware of the United States and the outside world.

That first year, Kopesky says they had to teach many kids how to use a toothbrush. Now, the older children are much more likely to care for themselves and their younger siblings. Personal appearance also has changed with children wearing clothes that are more modern or “Western” – which is particularly important to the children from the orphanages, who want to fit in with the rest of the campers.

“The kids still enjoy and appreciate the camp,” says Kopesky. “In fact, parents want to send their kids to camp because they think it will help them become better prepared for life.”

One thing that hasn’t changed is Kopesky’s attitude and his desire to help the Romanian children.

Kopesky’s church, which counts about 2,000 attendees at its weekend services, also sends teams to Haiti, Mexico and Algeria – but not all charity is overseas. The church, which dispatched teams to help rebuild the Gulf Coast after Hurricane Katrina, provides Thanksgiving meals for the needy and assistance to a tribal reservation in Wisconsin.

So the next time you look at a globe, think of Norm Kopesky helping children and changing lives. You’ll probably realize that the distance between Wisconsin and Romania isn’t really that far. →
Our industry loves acronyms. Among the multitude, we have FBO (fixed base operator), LAX (Los Angeles International Airport), and FAA (Federal Aviation Administration). Now we can add another – ODA (Organization Designation Authorization) – three letters that represent an incredible relationship between the FAA and Gulfstream.

The FAA is the government agency tasked with regulating and overseeing all aspects of civil aviation in the United States. Part of the FAA’s responsibilities includes issuing the various certifications required of Gulfstream to help regulate and ensure flight safety. Gulfstream has long promoted a culture of compliance and cooperation with the FAA, including our “Partnership for Safety Plan.” The plan, created with the FAA in 2000, developed operating norms and an infrastructure for process improvements. More recently, Gulfstream has further strengthened our relationship with the FAA by adding a new program that is proving to be of great benefit to both organizations – the ODA.

Gulfstream earned its initial ODA in March 2008, becoming the first aircraft manufacturer to achieve this FAA approval. The ODA delegation was for initial phase engineering and production in Savannah. This past June, the FAA expanded the company’s delegation to include completion and product support functions at all Gulfstream Final Phase sites in the United States.

“ODA allows us to be more flexible in staffing and support functions, while being more competitively nimble,” says Bill Whitton, vice president, ODA office. “Although ODA is not self-certification, we can control our certification destiny better by scheduling and implementing for ourselves some of the tasks formerly performed by the FAA.”

The ODA delegation permits Gulfstream to perform authorized airworthiness functions in accordance with FAA requirements and FAA-approved ODA procedures. As an ODA holder, Gulfstream is allowed to act on behalf of the FAA to examine Gulfstream aircraft designs, production quality, parts approvals, repairs, alterations and airworthiness. The delegation allows Gulfstream to use its own technical experts to perform compliance and airworthiness functions, rather than depending on the availability of FAA employees who must serve numerous other companies. The delegation benefits the FAA by freeing its staff from routine airworthiness tasks, thus making their employees available for more safety-critical activities. The delegation offers Gulfstream several advantages: a higher level of standardization, including one ODA manual for all sites, the breakdown of regional differences, shared resources across the company, and added flexibility, all of which result in a more cost-effective process.

Following the ODA office’s most recent achievements, Gulfstream is ready to take the next step, says Whitton.

“Now that we have implemented ODA across the enterprise as a single, integrated organization, we are ready to move to the third phase, which includes adding our remaining GDAS sites as part of our future ODA expansion,” he says. “Some of those employees already have been exposed to the process with introductory training. We are excited about the future opportunities this offers us. We know this is the way of the future, and Gulfstream is again in the forefront of that change.”
Completing our new paint hangar on the Savannah campus enabled Gulfstream to achieve several major objectives: expanding the production capability for painting aircraft, improving the paint quality on new and refurbished airplanes, and creating a comfortable working environment for the 90 people who work there.

But perhaps the most significant achievement was to provide a facility that is sufficiently large and technologically sophisticated to accommodate the ultra-large-cabin, ultra-high-speed G650, the new flagship of the Gulfstream fleet.

Even before considering the hangar’s design, Paint Operations people fanned out to do their homework. They visited every new paint facility they could find. They determined from paint suppliers what the ideal painting environment should be. They investigated environmental factors like air-circulation systems and methods of capturing toxic gases.

“We wanted to create the same experience in our paint process that we offer in our airplanes. We wanted to exceed everyone’s expectations,” says Troy Rowe, senior manager of Final Phase Paint Operations. “With this new hangar, we did that.”

Completed in February, the new paint hangar encompasses 43,600 square feet of space. Originally part of Gulfstream’s $400 million, seven-year facilities improvement plan, the new hangar can accommodate three G650s at a time, one in prep and two in paint.

“We asked our paint suppliers to describe the ideal environment for painting an airplane. They said 75 degrees and 50 percent humidity. So we developed a system that would do that,” Rowe says. “Now we paint in what are classified as ‘lab-quality’ conditions.”

The hangar also installed a down draft system that pulls air from the ceiling, directs it around the airplane and draws it down through the floor. That prevents overspray from flowing sideways across the building before being expelled through side vents. “The new system significantly reduces overspray and any uncontrolled travel of paint,” Rowe says.

“By installing an 85-15 recirculation system, we capture fully 85 percent of the air expended in the painting process. That represents a significant reduction in noxious gasses.”

And what about paint quality?

Jimmy Hester, a paint shop lead, knows a good paint job when he sees one. He’s painted 1,700 airplanes in 22 years with Gulfstream.

“We pretty much cut our squawk count in half,” Hester says. “This new environment enables us to control the temperature and the humidity. Now, we have a constant range of 73 to 75 degrees with 45 to 50 percent humidity. That’s great for getting the paint to flow out and dry, to look good and shine.”

As an aircraft prep trainee, Gladys Ann Williams-Anderson is just beginning the lengthy process of becoming a senior master craftsman painter. She likes the new paint hangar for a different reason. “What’s it like to work here? It’s like a dream,” she says. “I love it. Everyone’s friendly and nice. It’s like a family. I leave one home and come to another.”
Ron Batiste has been on the job for less than two years, but already he’s made significant contributions to the operating efficiency of our General Dynamics Aviation Services facility (GDAS) in West Palm Beach, Fla.

As a senior buyer, Batiste purchases aircraft parts from vendors – avionics systems and components for the cockpit, for example, and entertainment systems for the cabin.

By 8 a.m., Batiste is sitting at his desk, poring over the previous night’s e-mails. The messages contain a list of the parts mechanics will need to complete their repairs. First he checks the inventory to see if the part’s in stock. If not, he determines where he bought it the last time and orders it if the cost is still competitive. By midmorning, he checks the FedEx inbound list to find out what previously ordered parts will be arriving that day.

Besides his daily duties, Batiste is a certified Green Belt in Lean Six Sigma. He’s charged with promoting a Lean environment at the West Palm Beach facility.

“One of the first responsibilities of our Lean manufacturing initiative is to educate people about how Lean works and the benefits of Lean manufacturing,” he says. “I constantly hear people say, ‘it can’t happen here’ or, ‘we’ve always done it this way.’ Once you convince people that adopting the principles of Lean manufacturing will be beneficial for us, then you start to make a difference.”

By midday, Batiste is checking on the new parts that are starting to arrive.

“When I purchase a part, I look for the most economical price and the quickest delivery,” he says. “Then I pass that information on to the mechanics so they can provide it to our customers.”

When an aircraft comes in for service, GDAS provides an estimate of the cost of repairing the part. If the repair cost exceeds the estimated cost, then the customer must authorize the purchase. Conversely, when a part comes in below the estimate, the customer reaps the benefit.

Batiste made his first Lean contribution to GDAS in his first week on the job.

“I was asked to attend a roundtable meeting,” he recalls. “I didn’t think I would have much to contribute, but then, in the middle of a discussion, I suggested creating an online link instead of filling out a paper form to make technical revisions to the manuals mechanics use to make repairs. Everybody thought that was a great idea. In fact, I received a Silver PRIDE award for that suggestion.”

The son of a career Army man, Batiste spent 25 years in the Marines, 20 of them on active duty. He earned a bachelor’s degree in business administration at National University in San Diego while in the service. He and his wife, Claudia, have a son, Ron Jr., 27, and a daughter, Letitia Janine, 24.

“This job is one of the best things that ever happened to me,” he says. “I want to satisfy the customers who come in here. I enjoy being a part of their aviation experience. I challenge myself every day to see what I can do better. There are a lot of good people here. I couldn’t have a better job.”
Khiem (David) Nguyen may have been able to attend the University of Houston without Gulfstream assistance—but winning the $8,000 Gulfstream Goldie Glenn Scholarship certainly made the decision to enroll a lot easier.

David, whose father, Peter Hiep Nguyen, is a senior interior installer in Dallas, is one of 36 sons or daughters of Gulfstream employees who currently are receiving assistance through this scholarship program. The scholarship—a $2,000 per year for up to four years—can help pay for tuition, on-campus room and board, books and academic fees.

At Seguin High School outside Dallas, David earned excellent grades—and he was president of his school’s Future Business Leaders of America organization and a member of the tennis team. In addition to being active in the school orchestra, he also participated in a mentoring program.

A freshman who intends to major in pre-med, David said he devotes more than three hours a day to studying. In addition to joining two organizations (the American Chemical Society and the Vietnamese Student Association), he regularly visits the university’s recreation center to play basketball. His favorite things about the college environment include meeting people, being involved in the programs the school offers, and enjoying the food.

“I’m thankful to Gulfstream for its commitment to education and for the financial assistance my father’s company has provided me,” David said.

Each year, the company awards 10 new college scholarships to the children of our employees. Winners are selected by an independent agency (the Community Foundation of the Lowcountry on Hilton Head Island, S.C.), which identifies five students strictly on academic performance and another five students on a combination of academic performance and financial need. All students must complete the scholarship application, which is available on the company’s intranet; students who also complete financial-need statements, which are available in high school counseling offices and on the Internet, are eligible to be considered in both categories.

The scholarship program is named in honor of Albert “Goldie” Glenn, who spent 52 years in the aircraft industry—with many technical, service and management responsibilities. Glenn, who was with the original Grumman contingent that established Gulfstream in Savannah in 1967, retired from Gulfstream in 1993 as its vice chairman.

He participates in most of the annual luncheons honoring Savannah and Brunswick scholarship winners.

Other scholarship opportunities that can be pursued by employees’ sons and daughters are found on the intranet—under “Scholarships.”

The deadline to submit Gulfstream Goldie Glenn Scholarship applications is March 1.

**Gulfstream Scholarships help students succeed**

**eligibility:**

The Gulfstream Goldie Glenn Scholarship is open to high school seniors who are sons or daughters (natural, legal, adopted, and stepchildren or wards who are full dependents for tax and benefit purposes) of full-time, retired or deceased Gulfstream employees. The student must enter an accredited institution of higher learning in the United States or an approved institution outside of the United States no later than the start of the next academic year. At the time of application, the parent must have completed at least one year of Gulfstream employment. Each scholarship is renewable up to a maximum of three additional years or until bachelor’s degree requirements are completed, whichever comes first. At the time of renewal, the student must exhibit good academic progress (defined as at least a 3.0 cumulative grade point average), be in acceptable disciplinary standing and have his or her parent still employed at Gulfstream. Any scholarship winner whose parent was affected by the 2009 reduction in force had the employment requirement waived.
Gulfstream Mexicali has been awarded the Shingo Prize for Operational Excellence – an award that has been described by Business Week magazine as “the Nobel Prize of manufacturing.” Mexicali was one of only 13 companies in North America selected for the award, which was established in 1988 to promote awareness of Lean concepts and to educate, assess and recognize companies that achieve world-class operational excellence status around the globe. Mexicali was recognized for its integration of Lean principles, Lean systems of management, and Lean tools and techniques.

“The employees of our Mexicali facility should feel extremely proud in earning the Shingo Prize for Operational Excellence,” says Joe Lombardo, president of Gulfstream. “This recognition, along with the results achieved over the past few years through the use of Lean tools and principles, demonstrates the commitment to Continuous Improvement throughout the Mexicali organization.”

The Shingo Prize for Operational Excellence is named for Shigeo Shingo, the Japanese industrial engineer who helped develop the Toyota Production System, the precursor of today’s Lean manufacturing processes. The award is administered by the Jon M. Huntsman School of Business at Utah State University.

Since 2002, Mexicali has been working diligently to create a sustainable culture of continuous improvement by encouraging employee involvement and incorporating the use of Lean tools and philosophies into its processes. The results of the facility’s dedication are evident in the statistics that earned it the Shingo Prize:

- 99.9 percent on-time deliveries
- 90 percent reduction in defects
- $6 million saved through continuous-improvement activities
- $4.1 million budget savings – while assuming $3.8 million in unbudgeted work
- More than 120 employee suggestions for improvement implemented

The Shingo Prize is awarded for such criteria as: customer satisfaction and profitability; quality, cost and delivery; Lean core operations; and leadership and empowerment enablers. Winners are selected by a board of examiners who evaluate each 100-page application and perform a two-to-three-day site evaluation. The Shingo Prize is the only award program in the world focused on Lean manufacturing and the elimination of waste.

In 2003, Mexicali received the General Dynamics Manufacturing Excellence Award – the company’s top means of recognizing improvements in a manufacturing environment.
pride
respect
teamwork
integrity
stewardship

TAKE PRIDE IN THE INTEGRITY, QUALITY AND SAFETY OF OUR PRODUCTS AND SERVICES
TREAT EVERYONE WITH THE GREATEST RESPECT
WORK TOGETHER SUPPORTIVELY AND SAFELY IN AN ENVIRONMENT OF CONTINUOUS IMPROVEMENT
CONDUCT BUSINESS HONESTLY AND ETHICALLY
COMMIT OURSELVES TO ALL STAKEHOLDERS – OUR CUSTOMERS, SUPPLIERS, EMPLOYEES, STOCKHOLDERS AND COMMUNITIES