

SKILL SCARCITY



End of the Line: Assembled F-35 Lightning II in Northrop Grumman's Palmdale plant.

By **MARK R. MADLER** Staff Reporter

From large aerospace contractors to small machine shops, Valley-region manufacturers have a challenge finding workers.

Northrop Grumman Corp.'s manufacturing plant in Palmdale is in full production on the center fuselage for the F-35 Lightning II.

Every day and a half, one of these fuselages comes off the line and then ships out for final assembly by its main contractor, **Lockheed Martin Corp.**

Northrop is the No. 1 company on the Business Journal's Manufacturers list based on the number of area employees (see page 14). In 2017, Northrop employed more than 4,000 workers in Palmdale.

Lockheed was the No. 2 company on the list for its Skunk Works plant, also in Palmdale, which employs about 3,700 workers.

Andrew Reynolds, vice president for the Northrop's F-35 integrated program team, called the company's integrated assembly line among the most advanced manufacturing facilities ever built. The line produces one center fuselage for the F-35 Lightning II every 36 hours – a pace unseen in decades in making a military aircraft.

"The F-35 (assembly line) facility itself was designed with lean manufacturing principles meant to keep costs down, keep us on schedule and maintain top quality," Reynolds wrote in an email to the Business Journal.

Northrop integrated automation and robotics into the assembly line concept.

For example, the inlet duct robotic drill system is a set of robotic laser-guided arms that accurately drill the holes into the aircraft ducts. The line also uses several automated guided vehicles that retrieve and deliver aircraft and tooling and parts weighing up to 80,000 pounds to speed production by eliminating costly overhead cranes, Reynolds wrote.

"Additionally, our robotic coating system applies a complex series of coatings to exacting tolerances on the fuselage. This beats traditional manual coating application methods that would take a longer period of time to complete and cost more," he said in the email.

Labor issues

For the 13 years, the Business Journal has been pro-

ducing the largest manufacturers list.

Out of the top 10 manufacturers on the 2005 list, only four remained on the list as of last year. And two of those four – **Anheuser-Busch Cos.**' brewery in Van Nuys and **Anthony Inc.**, a commercial refrigerator door maker in Sylmar, remained in the top 10.

The others fell off for a variety of reasons.

Superior Industries International Inc., the No. 1 company in 2005 with 1,400 employees, dropped off because it moved its Van Nuys headquarters to Michigan to be closer to its auto industry customers.

Micro Solutions Enterprises, which remanufactures used printer toner cartridges, No. 4 on the 2005 list, was acquired in July 2014 by **Clover Imaging Group**, in Hoffman Estates, Ill.

Nail polish maker **OPI Products**, No. 7 on the 2005 list, was acquired by **Coty Inc.** in 2010 and moved its manufacturing operations from North Hollywood to North Carolina six years later. OPI, however, maintains its headquarters in Calabasas.

Staying on the list from 2005 were **Precision Dy-**

ALSO IN THIS SECTION:

List of Valley region's largest manufacturers, ranked by employees, PAGE 14

namics, which fell from No. 5 on the older list to No. 39 this year; and drum maker **Remo Inc.**, which went from No. 10 on the 2005 list to No. 25 on this year's.

John Anderson, director of field operations for **California Manufacturing Technology Consulting**, a Torrance consultancy, characterized manufacturing in Los Angeles County as being robust and having recovered from the recession.

"It has changed," Anderson said. "People could find employees and now they can't. People were more interested in increasing their sales and marketing and now they are more interested in how they make themselves more efficient to get orders out on time, reduce their costs and increase their quality."

Dan Hamilton, director of economics at the Center for Economic Research and Forecasting at **California Lutheran University** in Thousand Oaks, has conducted a study of manufacturing in the Valley region.

Last year in the San Fernando Valley, there were 1,200 durable manufacturing companies and 570 in the nondurable sector. There were about 45,000 total manufacturing employees

with an average salary in durable goods of \$73,000, Hamilton said.

The study area for Hamilton's number includes all the Valley in the city of Los Angeles and some areas around the edges but does not include Burbank, Glendale, Calabasas or the Conejo, Santa Clarita and Antelope valleys.

"If we added, and particularly went east, Burbank and Glendale, these numbers would jump big time," Hamilton said.

But Anderson, the consultant, said that one of the biggest issues facing manufacturers is finding employees. The consultancy does quarterly surveys and, in the past, would get responses in the 10 percent range from business owners who said hiring was one of their strategic needs. That figure was up to 43 percent on the most recent survey, he added.

Companies are now looking to add training programs or working directly with community colleges that teach welding and programming computer numerical control, or CNC, machines. At El Camino College in Torrance, students in the welding program are hired even before they are finished, Anderson said.

"There is high demand for people who are



Security: Technician burnishes barricade at **Delta Scientific** in Palmdale, No. 38 on list.



Aerial Achievements: Entrance to **Lockheed Martin's Skunk Works** facility in Palmdale.

skilled or are willing to learn skills," he added.

Health, beauty hub

Kenn Phillips, executive director of the **Valley Economic Alliance**, the Sherman Oaks business attraction and retention organization, agreed that a stable workforce looms as one of the challenges facing manufacturers.

"The cost of energy has gone up, the cost of waste management has gone up, the cost of labor has gone up," Phillips said. "It is hitting them pretty hard."

The alliance is currently updating its own list of manufacturers in the Valley and, once completed, will start meeting with business owners. One thing that Phillips and his staff will discuss are the tax incentive programs available through the city of Los Angeles and the state to help these companies reduce costs.

For instance, the state offers a program where businesses do not have to pay sales tax on equipment purchases.

"So right away if you are buying a machine that is quite expensive, that could take care of someone's salary or several different people's

salaries just by not having to pay the sales tax," Phillips said.

While aerospace remains the anchor for Valley area manufacturing, there are other areas that are important as well. Nutritional supplements, for one, as made by **Pharmavite LLC**, in Northridge, **Natrol Inc.**, in Chatsworth, and **Lief Organics** in Valencia.

Phillips said that cosmetic companies are a fast-growing segment of the manufacturing industry in the Valley area. Some of these companies include **Thibiant International**, **Cosmetic Laboratories of America** and **Nature's Gate**, all in Chatsworth; and **Perlop Cosmetics** in Van Nuys. **OPI Inc.** in Calabasas and **Star Nail International** in Valencia.

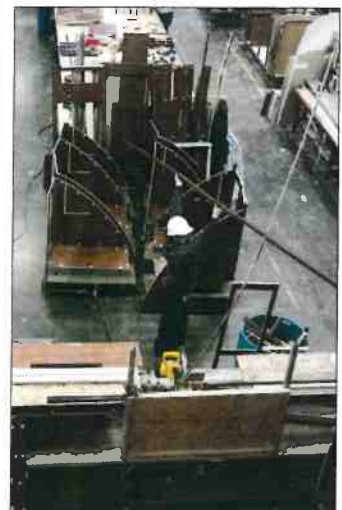
The diverse population is why he thinks these companies thrive here, Phillips said.

"They can try some of these unique products based on any skin color or hair type," he added. "Plus, in Los Angeles, people are interested in looking better and feeling fit, hence the vitamins and other products they are creating here."

Other manufacturing uses represented in the region include electric vehicles produced by **BYD Ltd. Corp.** in Lancaster, No. 7 on the list; solar panels made by **Spectrolab** in Sylmar at No. 21 on the list; recreational vehicles from **Lance Camper**, also in Lancaster, at No. 13; and vehicle barricade systems manufactured by **Delta Scientific Corp.**, in Palmdale, which ranks No. 38.



Boiler Room: Inside the **Anheuser-Busch** brewery in Van Nuys.



Floor Plan: Building unit at **Lance Campers**.