

International Wire Q4 2021 Marketing Newsletter



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2021 highlights and 2022 outlook



**Greg Smith, President, CEO
and Operating Partner**

As I reflect on 2021, there is so much to be proud of. Overall economic conditions and the demand for copper in virtually all end-user markets continued their strong recovery. Despite challenges brought on by the pandemic, IWG performed extremely well. Every employee demonstrated their continuous commitment to a safe work environment. We have made exceptional progress on becoming an Employer-of-Choice, instituted a number of initiatives to increase our culture of diversity, inclusion, and employee appreciation. Aside from investing in our most valuable resource, our dedicated team, we continued to make capital investments in technology, robotics, automation, and capacity, positioning us to meet the increased demand for copper well into the future. Finally, 2021 was a year of giving back, as several initiatives targeting our communities were brought to the forefront. So overall, a productive year of building strength in OUR company, doing well and doing good, together.

As we look forward to 2022, we are well-positioned for further growth. We have restructured and expanded the capabilities of our sales organization, put key executives in place to back up succession plans, and launched International Wire Cable Services, focused on niche-value add services in growth verticals. In sum, I remain exuberant in OUR business, in OUR team, and in OUR company as we start 2022.



PRODUCT SPOTLIGHTS

Underground mining cable

Bare Wire Division supplies tinned 7x37 rope bunched conductors of several sizes - 1,2, and 4 AWG

Application:

D.C. off-track mining equipment, like shuttle cars, drills, cutting and loading machines.

Specification:

D.C. resistance, gram weight, lay length, overall diameter

End Users/Markets:

Mining and Industrial Users



Conductors

Flexible tinned copper

Ground Wire

Uni-directional lay flexible tinned copper

Reinforcement

Synthetic yarn over assembly

Insulation

90°C ethylene-propylene rubber (EPR)

Jacket

Mold-cured thermoset with cable identification via permanent marking.



5G Cellular cable

OWL Wire & Cable supplies 19/.0372 concentric bare copper conductors

Application:

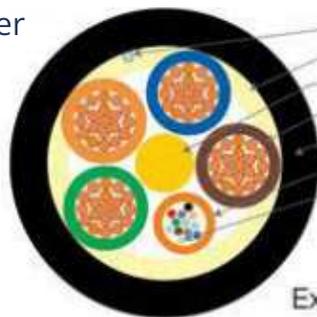
Distributed antenna systems (DAS) and cellular networks.

Specification:

lay length, overall diameter

End Users/Markets:

Data communication



- Rip Cord
- Strength Members
- Central Element
- Copper Subunit
- Flame-Retardant Outer Jacket
- Fiber Optic Subunit
- Fiber

Example of a DAS cable.



PRODUCT SPOTLIGHTS

Flexible braided connectors

Continental Cordage supplies tinned copper flat braids of various constructions

Application:

Flexible braided connectors for wind turbines, generators, substations, transformers, switchgears, hydro turbines, circuit breakers, and rectifiers

Specification:

Width, Thickness, Wire Diameter, end count, PPI

End Users/Markets:

Energy



Automotive grounding strap

Hamilton Products supplies 44X5X34 AWG .376"X.040" tinned copper flat braid

Application:

Lawn & garden vehicles, off-road vehicles, specialty vehicle, agriculture vehicles

Specification:

Width, Thickness, Wire Diameter, end count, PPI

End Users/Markets:

Automotive



PRODUCT SPOTLIGHTS

Vector Network Analyzer (VNA) Cable

High Performance Conductors business unit supplies solid silver-plated copper core conductor and silver-plated copper bobbins for braided shield

Application:

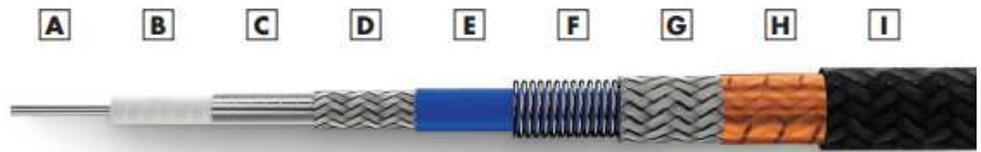
Test and measurement, test lead assemblies, interconnect testing

Specification:

D.C. resistance, wire diameter

End Users/Markets:

Test and Measurement, Aerospace, Military, Radar



- A** Silver-plated copper center conductor
- B** Low loss, low density PTFE dielectric
- C** Helically wrapped SPC flat wire shield
- D** High coverage silver-plated copper inner braid
- E** Inner jacket
- F** Crush/torque protection
- G** Strength reinforcing silver-plated copper outer braid
- H** Outer tape
- I** Braided jacket

Laminated flexible bus bar

Engineered Products division supplies ready to plug laminated bars of various sizes

Application:

Busbars conduct high voltage power of the battery to the E-powertrain.

Specification:

Current-carrying ampacity, operating temperature, acceptable bar heating, acceptable insulated bar dimensions

End Users/Markets:

Automotive



SUCCESS STORIES FROM IW EMPLOYEES

"I graduated with an Electrical Engineering high school diploma in 1999, then with an Industrial Maintenance HND in 2001. I started working as an order preparer for a manufacturer of stainless-steel screws, and worked there for 7 months, as a temp. It was very important for me to find a job in the field I studied.

A Maintenance Agent position became available at Tresse Métallique J. Forissier. They have been looking for a candidate to fill in the position for a while, but without any success. I was informed about this opening. That day luck smiled upon me: it was an opportunity to be seized! My CV ended up on the desk of the Maintenance Manager through an acquaintance. What a twist of fate...On Thursday, I was interviewed and the following Monday, March 4th, 2002, I became part of the company I've never left since. It will be 20 years in a few months.



My career evolution was unexpected. Approved to take a permanent position after one year contract, I started as a Maintenance Agent, then, thanks to my level of study and after I have proved myself, I became a Technician and worked in this position till the end of 2019.

The job security, proximity to my home, and the atmosphere in the department made me never feel the need to leave this company, but rather the desire to pour myself into work, as they say it's "give and take"! This company allowed me to start a family (I'm married and have 3 children) and to become the owner of a nice little house.

In June 2019, my Manager notified me of his intention to retire and informed me that the General Manager of Forissier offered me the position of Industrial Maintenance Manager. I was very touched and proud of the trust Forissier placed in me by offering this new career move.

At the dawn of my 40th birthday, becoming a manager and being responsible for a team of 7 people was something I could not refuse. I accepted this responsibility with a lot of anxiety because I didn't really feel ready for this position. The advice and encouragement of my team and the other members of the company allowed me to start my new job in the best conditions. In the department, on Friday I was their colleague, the following Monday I became their boss, and everything went very well.

I have been in this position for almost 2 years now and I still have a lot to learn. It's a new job, very different from a workshop Technician. Indeed, I lead a group of people, who rely on me and management. These new functions are very interesting and enriching. If had been told, when I left school in 2001, that I would become a Maintenance Department Manager in less than 20 years, I would have never believed it...

I am so grateful for the opportunities that I was able to seize while working for the company Tresse Métallique J. Forissier and grateful to the Management for their kindness and for placing their trust in me!"

Stéphane Muller, Maintenance Manager in IW European Division

SUCCESS STORIES FROM IW EMPLOYEES



"My career with IWG began 32 years ago when I joined Omega Wire in Williamstown NY. It was certainly a different time back then when we had seven wire-manufacturing facilities within a 70-mile radius. There was Camden Wire Co., Larabee Wire, Omega Wire, OWL Wire, Rome Cable, Spargo Wire, and United Wire Technologies.

When searching for a job, I wanted to join a company where I could establish myself, my family, and my friends. It was a time when your training consisted of running all equipment in the mill. If you passed that test, you earned a lifelong career. IWG has provided just that and I wouldn't change any of it.

The atmosphere was always one of a family-friendly competition as many of us all knew each other or knew of someone at the other mill. Each year when fall came around it was a particularly fun time when Camden hosted the Copper Wire Run and several companies participated in the best parade float during Homecoming Weekend.

The float competition has faded but the Copper Wire Run is still going strong. Over the years we have seen all the local names change but the atmosphere has remained; we just became one larger family as five of the local companies became one, International Wire.

Thirty-two years later, it is refreshing to see Greg's vision of "Our Company", it's something I believe in because it is Our Company, Our Families, and Our Future where each of us has a part in driving it forward. And as a lifelong member of this community, I want to see IWG, its employees, and families continue to prosper and remain a choice of employment for our local community."

Chris Lyon, Process Engineering Manager in IW Bare Wire Division

International Wire successfully implemented and adopted Salesforce CRM in 2021. Did you know what key benefits Salesforce brings to the company?

▶ Increased Sales

Salesforce helps to streamline the sales process, build a sales pipeline, allow to create tasks, and analyze all sales data in one centralized place, potentially increasing sales and productivity. CRM helps to establish a step-by-step sales process that employees can rely on every time and that can easily be tweaked as issues arise.

▶ Reporting and sales forecasting

Dashboard and reporting features allow employees to manage sales pipelines and processes and forecast sales through closing opportunities. CRM also helps team members evaluate their performance, track their goals, and check their progress on each of their projects at a glance.

▶ Better customer service

Salesforce manages all contacts and stores customer information including demographics, correspondence and notes, key projects and opportunities. This information is easily accessible to anyone in the organization. The commercial team has all they need to know about the customer at their fingertips and can provide a better customer experience, which boosts customer satisfaction.

▶ Cross-team collaboration and streamlined communication

CRM makes it easier for employees to see how other employees are speaking with a potential customer and to communicate with each other through chatter, tag each other on projects, and send messages and emails, all within one system. Multiple departments can use it together. If sales, engineering, and production control teams experience communication breakdowns, CRM helps to close these gaps.

▶ Lead management

A CRM software provides tools to track all activities from the first contact with a prospect, making it easier to follow their progress down the funnel, personalize the approach, and generate more leads (and ultimately, customers).

▶ Centralized database of information

Salesforce provides a centralized database with all information about the customers to commercial teams from different business units. This makes it easy for a salesperson to see what products a certain customer is interested in or what this customer purchased from another business unit, for example. This saves employees the time of digging through old files and records, and it makes for a better and more productive experience for the customer.





Congratulations IW!



International Wire

has been awarded a **multimillion-dollar grant** from the **US Navy** as part of an initiative to ensure the availability of key components required to support the building of the next generation of large guided-missile destroyers.

International Wire is the primary producer of anti-capillary water block-stranded wire to a customer within the critical supply chain, who in turn produces the products used in Naval Ships, specifically the DDG 51 Class Vessel.

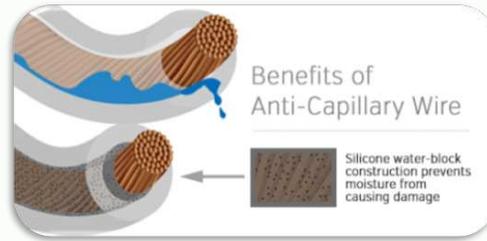


DDG 51 Class
Guided Missile
Destroyer

IWG has been part of the supply chain for these vessels since its inception in the late 1980s, selling the bare silicone blocked wire to our customer who insulates and jackets the bare wire for use in Naval applications.

What is Anti-Capillary Wire?

IWG's proprietary Anti-Capillary Silicone Water-Block Strand Wire is specifically designed to defend against water damage, offering protection beyond the water-resistant properties of the cable jacket application for demanding Naval and Marine applications



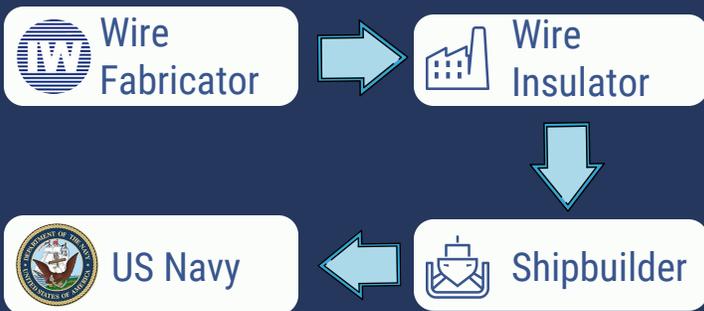
Project Details

IW will use the award to fund a large-scale project to increase manufacturing capacity in order to produce the anti-capillary water block strand wire needed within an acceptable lead time. This will ensure there are no gaps in the critical supply chain for the Navy or any of IW's other anti-capillary water block strand customers.

The project includes the purchase of new machinery and infrastructure to support the additional capacity and has a timeline of nearly 1.5 years to complete, mainly due to the long lead times associated with the purchase of new equipment from OEM's.

Once complete, it will add four times more installed capacity and reduce lead-times by 75% to ensure a reliable source of supply for future DDG-51's.

The Supply Chain



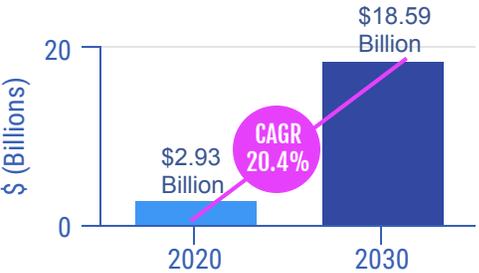


The Race To SPACE

Internet Beaming Constellations

Opportunity Abounds For Wire & Cable

The Global Satellite Internet Market size was valued at \$2.93 billion in 2020 and is projected to reach \$18.59 billion by 2030, growing at a CAGR of 20.4% from 2021 to 2030.



Wire and Cable will be needed to support this growth, not only within the satellites themselves but in the infrastructure, including the base units and home networking. Companies will need to be nimble to capture opportunities in this rapidly evolving market.

Dueling Giants

(RTT News, Nov. 12, 2021)

The Bezos-Musk rivalry enters new heights as Amazon, (AMZN) is also trying to get into the fray of satellite broadband services. Project Kuiper, Amazon's answer to Musk's Starlink project, is taking motion in the background with the company is planning to launch its first two satellites into orbit.

The main target of the project is to create a mesh around the earth to provide fast and affordable internet around the world, even in the most remote locations. According to Amazon, they are going to partner with Verizon to deliver LTE and 5G connections in remote places.

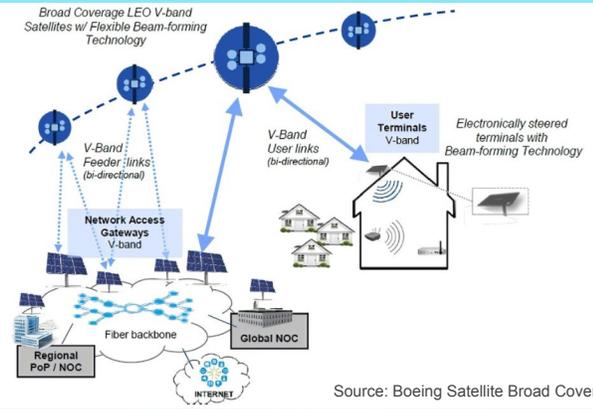
Last year, the tech giants have obtained permission Federal Communications Commission to launch its satellites for seven years. According to the filing, Blue Origin is planning to launch a grand total of 3,236 satellites for its constellation.

However, Amazon would not be the first company to move to space. Musks Starlink project is well underway and has already launched 1700 satellites into orbit. For its introductory offer, users will have to pay \$499, and then the system will be just \$99 per month.

HOW IT WORKS

Traditional satellite internet service hovered roughly 22,000 miles above the surface of the earth over the equator in a geostationary orbit, rotating with the planet so the signal relay is consistent.

The next generation of satellites from Starlink (SpaceX) and Project Kuiper (Amazon) are much closer to earth, orbiting about 300 miles from the surface. Because of the closer proximity, they can provide users with faster internet speed and lower latency, but they cannot cover the same area as the geostationary satellites, so more are required to deliver the same coverage as two or three traditional satellites. This densification is called a constellation. This low earth orbit satellite (LEO) constellation works together as a system, providing coverage any time of place a satellite is visible.



Source: Boeing Satellite Broad Coverage



International Wire employees help brighten holidays for area children

The employees at International Wire, in Rome, have stepped up to help make Christmas a bit merrier for area children in need, collecting toys and money to buy more toys for the Toys for Tots program.

“Everyone who participated did so knowing the joy they would be bringing to children in need,” company officials said in an announcement. “In a time when there is so much unrest and tension in the world, it is nice to be able to do something for others who need help.”



The Toys for Tots program began in 1947 when Diane Hendricks, the wife of Maj. Bill Hendricks of the Marine Corps Reserves, made a doll for a needy child to receive for Christmas. When the couple determined that no organization existed to provide the doll to a child, they started a campaign to provide toys to children.

After that first year, the Marine Corps adopted the program and expanded it throughout the nation. The Marine Corps decided in the late 1980's that a non-profit foundation was necessary to help operate Toys for Tots, and the Toys for Tots Foundation was founded in 1991 to provide fundraising services and support for the program. With military cutbacks leaving less money for the program, the foundation is a vehicle to raise money from individuals and corporate donors.

Overall the Toys for Tots Program distributes an average of 18 million toys to 7 million less fortunate children. Locally, the program helps brighten the holidays for thousands of local youngsters who might otherwise receive no presents for the holidays.

* For more information, go to the Toys for Tots website www.toysfortots.org.



Building a sustainable future together...



International Wire has installed Level 2 chargers with a total of eight charging ports supported by New York State's **Charge Ready NY Program**, designed to accelerate the deployment of electric vehicle charging equipment. Increasing the use of electric vehicles and electric vehicle charging stations benefits our community by reducing harmful emissions and the transportation sector's dependence on petroleum.

IWG employees will charge their EVs for free!

IWG Facts:

- Four (4) Level 2 EV charging stations were installed and activated at the IWG Owl Wire plant in Canastota, NY;
- Eight (8) EV charging stations were installed at IWG Plant 1 in Camden, NY;
- Four (4) EV charging stations to be installed at each of 7 additional NY plants in 2022.
- IWG intends to provide charging for free to all employees!

Facts about EVs you probably didn't know:

- By 2024, the electric vehicle charging station market is expected to reach a CAGR of 38%.
- There are over 10 million EVs on the road.
- 71 percent of U.S. drivers would consider buying an EV in the future.
- The first electric vehicle was created in 1832.
- EVs are more efficient. Up to 80 percent of the battery energy powers the vehicle, compared to 14% to 26% of the energy from a gasoline-powered car.
- An EV would cost only \$1 in energy to travel the same distance as a gallon of gas, which currently averages \$3.42.
- A Tesla Roadster is faster than most sports cars, with an acceleration speed of 0 to 60 in 1.9 seconds. To compare, a Ferrari or Lamborghini accelerates from 0 to 62 in 2.8 to 2.9 seconds.
- About 57% of consumers avoid EVs because they worry about running out of charge but only 5% of owners have run out.

