



Made for today, ready for tomorrow

First-ever Virtual Metalcasting Congress goes live in April

Metalcasting Congress has always been about innovation – the latest technologies, the newest research, the most up-to-date practices. So it's fitting that, in its 125th year, this industry gathering should embrace the leading edge of conventions and exhibitions: live web streaming and on-demand access.

For the first time, Metalcasting Congress 2021 will be offered entirely online, going live April 12-22. But this is no webinar or YouTube video series. Hosted on the 6Connex web platform, this year's event will bring everything from panel discussions with foundry executives, to Q&As with researchers, to keynote addresses and lectures delivered directly to browsers around the world.

"Innovation has always been the signature of the foundry industry," said Peter Reich, AFS Past President and director of LAEMPE REICH. "Sometimes it's by choice, sometimes it's by necessity. AFS is adapting to deliver what will be an awesome virtual event."

The decision to go virtual was one of necessity due to the ongoing pandemic. But Metalcasting Congress is one of the industry's longest running and most influential



The virtual lobby is the starting point for a metalcasting industry experience unlike any other.

gatherings, so following a year in which the event was called off entirely, it was necessary to adapt to ensure the continued flow of metalcasting knowledge and business networking. The result is a highly interactive event.

On the multimedia show floor, suppliers and North American metalcasters can spotlight their companies and generate leads, while industry pros can request video meetings with vendors, chat in multiple languages – translation services

are available – and collect information on the products and services they need. A slate of expert speakers will deliver their insights on everything ranging from alloy-specific topics to additive manufacturing, and from government affairs to marketing. These sessions – more than 60 in all – will combine live presentations with on-demand content and extras such as question-and-answer sessions. It's what

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AFS announces 2021 policy agenda

Priorities center on economic growth through manufacturing

Plans for a robust economic recovery, powered by a strong U.S. manufacturing base, are at the center of the AFS 2021 Policy Agenda delivered to Capitol Hill in January.

AFS called on lawmakers to encourage economic growth and job creation with policies that support the success of U.S. metalcasters. In a letter to Senators and Representatives, AFS announced

its policy priorities for 2021, including upgrading infrastructure, strengthening investments in domestic manufacturing, vigorous enforcement of U.S. trade laws, and investing in workforce development.

"By prioritizing these critical issues, we can jump start the economy and provide

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Ask a technical question, answer a question with Casting Connection



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Join the discussion at [Foundry and Diecaster Network](#)



Follow us on Twitter @AmerFoundrySoc

Member involvement at very high levels

It has been nearly a year since the most recent large-scale American Foundry Society in-person event, which was the March 2020 Southeast Regional in Chattanooga. The inability to conduct programming in the normal ways has been just another source of bad news.

How about some good news? Here is some news that should encourage everyone in our industry. Despite the fact that many AFS conferences, as well as chapter and committee activities, have by necessity gone virtual or digital, AFS member involvement is at exceptionally high levels. That is a credit to an industry that not only understands the value of AFS but is also accustomed to persevering through whatever challenges come its way.

Expertise Conveyed in New and Traditional Ways. For technical questions and responses, more than 500 members are using Casting Connection, which is AFS's online discussion board. In 2020, the number of conversations rocketed from 275 to 447. Some say that the exchange of expertise on Casting Connection alone is worth the cost of their membership.

Many other members are consulting AFS's world-class digital library. In 2020, members from 340 different companies or organizations downloaded 7,628 articles. AFS converted the library from a paid to a free, members-only service in 2018 and it is gratifying to see our members taking

full advantage of the resource. Digital downloads are easy, and if you do run into any challenges, contact Bo Wallace at bwallace@afsinc.org for assistance. Still other members are receiving responses to technical questions by contacting the knowledgeable and well-connected AFS Technical Services staff.

Companies are also redoubling their commitment to employee training. While large-scale, in-person training is less practical at this time, participation in the AFS Institute's live-online courses, using Zoom, is at high levels. Course attendance is up more than 30 percent year-over-year and Institute courses are

scheduled out through June for your convenience. The uptrend can also be seen in Foundry E-Learning, where completed modules rose from 3,167 in 2019 to 4,399 in 2020 for a 33 percent increase. Foundry E-Learning is a suite of digital courses on the full range of metalcasting topics, which combines convenience with accountability. Modules can be taken as part of a plant-wide subscription or a la carte.

More information can be found at

[AFSinc.org/foundry-e-learning](https://afsinc.org/foundry-e-learning).

Five years ago, AFS was offering about eight webinars per year. In 2020, the Society presented 34 webinars with 2,522 attendees – an average of almost 75 members per session. These webinars cover topics related to casting processes, quality, metallurgy, safety, regulatory compliance, human resources, as well as sales and marketing.

The two AFS shared interest groups – Women in Metalcasting as well as Future Leaders in Metalcasting – have maintained their momentum by holding online events and expanding the scope of their communications.

Metalcasting Congress 2021 – The Next Opportunity. For the first time, Metalcasting Congress will be presented as a virtual event from April 12 to 22. Sharply reduced exhibit and registration costs, coupled with no need for travel and lodging, means more employees are able to benefit from the exhibits, virtual networking, insight and information that will be provided. All members are encouraged to visit MetalcastingCongress.org or give us a call to learn more.

Your continued involvement in AFS committees, shared interest groups and chapters is encouraged, as it strengthens our industry and our organization. We all look forward to the time – hopefully very soon – that we can gather together again for large, in-person events. In the meantime, AFS remains committed to delivering superior member service no matter how you interact with us. Thank you for your continued membership and involvement!

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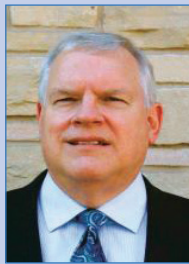


Metalcasting Congress 2021 Keynotes

Hoyt Lecture: Transformation of the Modern Foundry

Greg Miskinis
Retired, Waupaca Foundry
Monday, April 12

The foundry industry has been in a state of transformation for over 2,600 years. From shapes carved into stone, to topologically optimized and additive manufacturing-facilitated creations, the evolution of metalcasting is easily witnessed.



Whether this change has come about by man, method, material or market is debatable. With the gradual shift from personal vehicles with internal combustion engines to semi- or fully autonomous electric vehicles, competing in these shrinking markets will likely require agile and novel foundry solutions. This Hoyt Lecture will examine how foundries have been transformed primarily by shifts in the workforce, market pressures brought by global flattening (competition), environmental, health and safety changes and even by disaster.

How to Benefit From Shorter Supply Chains

Harry Moser

President, Reshoring Initiative Monday, April 19

Reshoring and foreign direct investment (FDI) have brought back over 700,000 U.S. manufacturing jobs in the last 11 years. At the same time, the COVID crisis has demonstrated the risk of long supply chains. In fact, a recent BDO survey showed that 24% of companies are planning to change the country in which they source or produce, and 22% plan to reshore to the U.S.

Harry Moser, president of Reshoring Initiative, will explore how U.S. foundries can take advantage of the trend toward shorter supply chains and what that means for reshoring and FDI. Plus, discover how Reshoring Initiative's Total Cost of Ownership Estimator and the Import Substitution Program can help your company land contracts that otherwise would have gone overseas.

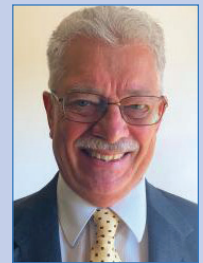


Hoyt Lecture: Metamorphosis Change and Transition

Tom Prucha
President, MetalMorphosis LLC |
Editor-in-Chief, International
Journal of Metalcasting

Tuesday, April 20

Change is constant, as nothing stays the same. Consider the words of the Chinese philosopher Lao Tzu: "Life is a series of natural and spontaneous changes. Don't resist them—that only creates sorrow. Let reality be reality. Let things flow naturally forward in whatever way they like." Some changes are the result of biology and the passage of time, within the natural cycle or order of things. Others are self-generated, under our own control and willful effort, or dependent upon encounters with significant others—family, friends, colleagues, and others close to us. Still, other changes occur because of circumstance or fate, a proverbial "date with destiny" and often beyond what we feel is our control.



Whether it is our personal life or occupational, like metalcasting, this change can facilitate transition and transformation. Prucha has coined the term "metamorphosis," and this lecture is a reflection of how to embrace change and use it as a vehicle for new opportunities. Beyond the philosophical, this lecture looks at how we as metallurgists and metalcasters apply change (time, temperature, pressure, chemical reactions, etc.) to transform metals and create metamorphosis.

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longtime Metalcasting Congress attendees have come to expect from this event, but more accessible than ever before.

Metalcasting Congress 2021 goes live online Mondays through Thursdays, April 12-22. Registration and exhibit sales are now open. To see the full conference agenda, learn more about exhibitor opportunities and eligibility, or to purchase a digital pass, visit MetalcastingCongress.org.

Metalcasting Congress 2021

Live online & on demand, April 12-22

Registration: MetalcastingCongress.org

ALL ACCESS EXPERIENCE

Everything Congress has to offer, including presentations, keynotes, and exhibits.

AFS Members: \$250 through March 1, \$300 after March 1

Non-Members: \$300 through March 1,

\$400 after March 1

EXHIBIT PASS

Access to all exhibits, plus extras including the Casting Designers & Buyers Track.

AFS Members: \$10 through March 1, \$20 after March 1

Non-Members: \$15 through March 1, \$30 after March 1



AFFORDABLE HEALTHCARE OPTIONS

Small to mid-sized **AFS Corporate Members*** can save money on employee health benefits with **AFS-NAM Health Insurance**.

- Affordable plans
- Easy enrollment
- Great benefits
- Tailored for companies with fewer than 100 employees

Get a detailed quote, review plans, and find out if your company is eligible at [AFS.NAMhealthcare.com](https://afs.namhealthcare.com).

NAM HEALTH CARE | 



**Eligibility is state-dependent. Review all requirements at <https://afs.namhealthcare.com/health/nam-health-care.html>.*

AFS outlines infrastructure priorities in letter to DOT

Policymakers in Washington should take advantage of a bipartisan opportunity to enhance our nation's infrastructure, grow the economy, and support U.S. jobs by investing in our transportation and water systems.

This is the message AFS delivered to newly appointed U.S. Secretary of Transportation

Pete Buttigieg in a letter outlining AFS' infrastructure agenda.

AFS highlighted four policies that would support American jobs and manufacturers and grow the U.S. economy: Modernizing our nation's infrastructure, strengthening and expanding Buy-American rules, incentivizing private investment in the

freight railcar manufacturing industry, and streamlining and accelerating the federal permitting process.

"The U.S. metalcasting industry stands ready to work with you to grow the economy, enhance Buy-America rules and purchases, and modernize our transportation and water infrastructure," the letter states.

2021 AFS POLICY PRIORITIES

- **Rebuilding and upgrading our nation's infrastructure**, including roads, bridges, airports, rail, schools, electric grids, ports, and broadband, as well as drinking water and wastewater projects. These critical assets are in urgent need of repair, maintenance, and sustainable investment.
- **Strengthening investments in domestic manufacturing** by increasing federal purchases of U.S. manufactured goods, enhancing "Buy-American" rules, ensuring that tax incentives for equipment purchases and a full deduction for R&D expenses remain in place, and reducing our reliance on foreign countries for minerals that we can mine and use here.
- **Maintaining the existing U.S. Section 232 and 301 tariffs** on metal castings, encouraging reshoring, and vigorously enforcing U.S. trade laws.
- **Investing in the next generation** of skilled technical workers

Victory on Paycheck Protection Program

AFS-backed legislation signed into law by President Trump in 2020 established the Paycheck Protection Program (PPP). The program benefited many foundries, and thousands of other businesses, during the pandemic. However, the law's provisions and regulatory guidance created surprise tax increases. Also, the loan-forgiveness provisions needed to be improved.

AFS Advocacy

AFS participated actively in coalition lobbying efforts that called attention to the need for the PPP program to be improved. As the 2020 legislative session was coming to a close, AFS and coalition members strongly urged lawmakers to address these concerns before the end of the year, rather than leave it to the next Congress.

The Positive Outcome

The second COVID-19 recovery package, enacted Dec. 27, 2020, included many provisions AFS fought for, including a second round of funding for PPP. Additionally, it improved upon existing PPP loans by protecting metalcasters from surprise tax increases, streamlining the loan forgiveness process.

The bill also extended or made permanent a number of expiring tax provisions, including tax credits that incentivize construction of new wind and solar power plants, as well as tax credits for carbon capture, biofuels and alternative fuels, fuel cells and energy efficiency. This combination of provisions represented good news for metalcasters.

BOTTOM-LINE ISSUES

AFS works full-time to advocate for a positive business climate for the \$44 billion metalcasting economy. At any given time, AFS is working on 20-25 issues in the areas of:

- OSHA policy
- EPA policy
- Infrastructure investment
- Buy America policies
- Tax policy
- Rigorous enforcement of fair trade
- Workforce readiness

Learn more about AFS advocacy at AFSinc.org/advocacy-efforts.



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communities, U.S. manufacturers, and businesses with the opportunity to create jobs and raise the living standard for all,"

the letter reads. "AFS stands ready to work with you, as well as the incoming Administration, to grow our economy and build a 21st century infrastructure system."

New Forecast projects strong industry growth

The U.S. metalcasting industry is projected to grow at a rate of 19.7% in 2021, according to a new report published by AFS.

This and other vital business intelligence was released in the biannual AFS *Metalcasting Forecast & Trends*, which provides a targeted economic outlook to foundries, industry suppliers, and others who must understand analysts' projections for the short- and long-term future of the metalcasting industry.

"Following an economic slowdown triggered by the pandemic and the government response, we are projecting casting sales to rebound from \$36.8 billion to \$44.0 billion," said Doug Kurkul, CEO of AFS. "We expect the market to have recovered to just about the 2019 level by the end of 2021."

The report – which draws on comprehensive business surveys from the Census Bureau, Bureau of Labor Statistics, AFS, and other agencies – predicts strong growth for this essential industry.



Various markets are recovering at different paces, and some foundries are seeing a sales rebound sooner than others.

The *Forecast* was delivered electronically to Corporate Members in January. AFS also provided Corporate Members with a copy of the newly released World Foundry Organization Global Foundry Report, which

ABOUT THE FORECAST

Previously published once per year, AFS in 2020 expanded the *Forecast* to twice per year to provide more timely updates to its Corporate Members. The report is now published each winter and summer.

Featured in the *Forecast* are anticipated revenue and growth benchmarks, and cost, capital, and profit benchmarks. The report includes snapshots of industry payroll, productivity, product line growth, and other data which can be used for benchmarking, budgeting, and business planning.

The *Forecast* is complimentary to all AFS Corporate Members. Non-members may purchase the report from AFS at a cost of \$1,000.

is available in North America only through AFS. If your AFS Corporate Member facility hasn't received its copy, please email Ben Yates at byates@afsinc.org.

Collaborate on Casting Connection

AFS members are using Casting Connection more than ever, with an

increase in activity of more than a third over the past year.

Casting Connection is a members-only internet message board where metalcasters ask and answer questions about

technical issues encountered on the job. As an AFS member, you have access to this tool.

To get started, visit CastingConnection.afsinc.org/home.

AFS PUBLICATIONS

3D Printed Sand Committee compiles pocket guide for metalcasters

Metalcasters who want to learn more about the state-of-the-art process of 3D sand printing have a new resource from AFS.

The 3D Printed Precision Sand Casting Process is a helpful pocket guide that explains this toolingless technology in clear detail. Released to the public this winter, the 120-page book first debuted at the AFS Sand Casting & Additive Manufacturing Conference in August 2020.

Compiled by the experts of the AFS 3D Printed Sand Technical Committee, the guide features detailed process descriptions and photographs. Topics covered include design considerations, binders and substrate materials, surface finishes, post processing, handling, current industry best practices, and quality control.

The guide is ideal for conventional metalcasters, casting engineers, design engineers, and casting buyers who need to understand this cutting-edge process, which enables metalcasters to create highly complex castings of virtually any size and weight.

The 3D Printed Precision Sand Casting Process is \$20 for AFS Corporate Members, \$30 for Individual Members, and \$40 for non-members. To purchase your copy, visit AFSinc.org/store.



Institute introduces course on process control for engineers

New class debuts March 30, registration open

A new class tailored to the needs of engineers is the 39th course in the AFS Institute's catalogue.

Process Control for Engineers debuts March 30-April 1, 2021. It will be presented live online by noted quality expert Ted Schorn, author of *Improving the Effectiveness of Visual Inspection* published by AFS.

The first goal of every process is stability: a consistent and predictable outcome. When we can make every casting the same, every dimension and every characteristic the same we can truly say we can control the process. If we can control it, we can improve it.

But how are processes controlled? What are the factors of influence on

FOUNDRY E-LEARNING UP 40%

In the past year, AFS Foundry e-Learning users have completed about 4,755 individual instructional modules – and that number keeps growing. This represents an increase of more than 40 percent over the previous year.

Foundry E-Learning is the Institute's original digital workforce learning tool, offering more than 100 educational modules covering every major alloy and process, from the basics of metalcasting to highly advanced topics. The curriculum offers step-by-step instruction that can be completed at any time, on any shift. To experience a free demo of the module of your choice, email Jen Christian, Director of Training Solutions, at jchristian@afsinc.org.

processes that must be managed? This introductory course is designed to help process and quality engineers to answer these questions and to develop a methodology of process control. Attendees will leave with a set of tools and perspectives on process control that will provide a framework for attacking production and

quality problems.

The AFS Institute has live online courses scheduled through June. These instructor-led classes, held on Zoom, cover the same material as classroom courses. To register for Process Control for Engineers or other Institute courses, visit [AFSinc.org/courses](https://www.afsinc.org/courses).

AFS CHAPTERS



Chapter officers gather for the 2018 conference at AFS HQ.

Chapter Officers Conference returns in August

For the first time since 2019, the AFS Chapter Officers Conference is returning to AFS HQ in Schaumburg, Illinois, on Aug. 16-17, 2021.

Held in person every other year, the two-day Chapter Officers Conference includes an evening social event – this year's is at Topgolf, a sports entertainment venue – plus workshops, networking, and presentations on topics such as member involvement, meeting ideas, communications, student engagement, and more.

AFS CHAPTER ZOOM

AFS has a dedicated Zoom meeting account to allow chapters to host virtual events. If your chapter would like to use this resource, contact byates@afsinc.org.

All AFS Chapter Officers are invited to take part, and registration is open. To sign up, visit [AFSinc.org/conferences](https://www.afsinc.org/conferences).

WIM

Women in Metalcasting accepting award nominations

Do you know a person who has been an exceptional leader, champion, mentor and/or role model for women in the metalcasting industry? Nominate them for the Women in Metalcasting Award for Excellence! Nominations are now open for this annual honor from WIM.

The deadline to submit nominations is Feb. 28. To download a brief nomination form, visit [AFSinc.org/women-metalcasting](https://www.afsinc.org/women-metalcasting). For more information, email Katie Matticks at kmatticks@afsinc.org.

WIM WEBINAR SERIES

Work-Life Balance: Perspectives and Real-Life Solutions
Tuesday, March 2, 1-2 p.m. CT
Register for this AFS Members-Only Webinar, presented by Women in Metalcasting, at [AFSinc.org](https://www.afsinc.org).



AFS ENERGY PROGRAM

AFS is proud to partner with **APPI Energy** to provide our **Corporate Members** with data-driven solutions designed to make their businesses more profitable by reducing their electricity and natural gas supply costs.

APPI Energy's proprietary database of more than **250 million records compiled over 23 years of transaction experience** enables them to benchmark historical and real-time prices in every deregulated market. Every day **APPI Energy** updates and reviews thousands of prices from vetted service providers in all markets. This platform allows them to deliver accurate and immediate apples-to-apples price comparisons.

After identifying the options, **APPI Energy** consultants provide recommendations on pricing, market timing and length of contract using data analytics and their proprietary database.

After securing a supplier, their customer service team interacts on your behalf with utilities and suppliers to ensure smooth transactions. During 2019 **APPI Energy** resolved 896 customer service cases related to billing accuracy, billing error resolution, and credit issues. They also continually evaluate utility programs and regulatory policies to identify opportunities for reimbursements and financial incentives that save you money. For example, they can determine if you qualify for energy sales tax exemptions and secure refunds at no cost to you.

Additionally, APPI Energy can consult and provide guidance on the energy management strategies, energy efficiency projects, Demand Response programs, alternative energy solutions and real-time energy management systems.

To learn more and take advantage of this **AFS Corporate Membership benefit**, contact **APPI's Drew Pangborn at 667-330-1164** or visit **www.appienergy.com** and **reference your membership in AFS** by company name.



AFS WELCOMES NEW CORPORATE MEMBERS

Through Feb. 15, 2021



**B.A. SUNDERLIN
BELLFOUNDRY**

B.A. Sunderlin Bellfoundry
Ruther Glen, Virginia



CR Maryborough Foundry
*Maryborough, Queensland,
Australia*

FASCAST, INC.
GRAY & DUCTILE FOUNDRY

FasCast Inc.
Tulsa, Oklahoma



ITI Manufacturing Inc.
Sugar Land, Texas



Impro Industries USA Inc.
Diamond Bar, California



**Jinan Shengquan Group
Share-Holding Co. Ltd.**
Jinan, Shandong, China



Lake Foundry 2020 Ltd.
Grimsby, Ontario, Canada



Mancuso Chemicals Ltd.
Niagara Falls, Ontario, Canada



RimRiser
Vancouver, Washington



Smart Sand Inc.
The Woodlands, Texas



The Nugent Sand Co. Inc.
Norton Shores, Michigan



Watton Enterprises
Chippewa Falls, Wisconsin



Wolf Steel Foundry Inc.
Hubbard, Oregon

AFS EVENTS

Sand Casting and Additive Manufacturing Conference | On demand through Aug. 31, 2021 | onlive.AFSinc.org

Environmental, Health & Safety Conference | On demand through Oct. 5, 2021 | onlive.AFSinc.org

Government Affairs Fly-In | Details to be announced soon

Foundry Industry 4.0 Conference | June 8-9, 2021 | Itasca, IL

Aluminum Melt Cleanliness Virtual Workshop | July 20-23, 2021 | Online

INSTITUTE COURSES

Casting Design: Live Online | March 2-4, 1-5 p.m. CT

Gating & Riser Design 101: Live Online | March 9-11, 1-5 p.m. CT

Identifying the Correct Casting Defect: Live Online | March 16, 1-4:30 p.m. CT

Steel Melting 201: Live Online | March 23-25, 1-5 p.m. CT

Process Control for Engineers: Live Online | March 30-April 1, 1-5 p.m. CT

2020-2021 AFS OFFICERS

Michael L. Lenahan, President
CEO
KB Foundry Services

Adam San Solo, Vice President
Director of Sales & Engineering
US Foundry & Manufacturing Company

Bradford Muller, 2nd Vice President
Vice President of Marketing
Charlotte Pipe & Foundry

Peter C. Reich, Immediate Past President
Co-Owner
LAEMPE REICH

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Member Connections is a newsletter for all current AFS members. Send all inquiries to Katelyn Stanek at kstanek@afsinc.org or 847-824-0181 ext. 286.



AFS Institute

Upcoming LIVE ONLINE Courses

The AFS Institute is offering introductory and career-advancing courses **Live Online**. Get the tools and knowledge you need from the comfort of your own home or office via Zoom.

Process Control for Engineers

March 30 - April 1
1 - 5 p.m. CT

Attendees will leave with a set of tools and perspectives on process control that will provide a framework for attacking production and quality problems.

BRAND NEW COURSE FOR 2021

Metalcasting Process Basics

April 6
1 - 5 p.m. CT

This course provides participants with a basic overview of the metal-casting process. Students will trace the path of a casting from quoting through shipping.

Casting Cost Estimating

April 7 - 9
1 - 5 p.m. CT

Cost estimating is a critical factor in ensuring a manufacturer continues to acquire customers and remains profitable.

Advanced 3D Manufacturing

April 27 - 29
1 - 5 p.m. CT

This course will cover basic casting design rules comparing traditional sand casting with toolless 3D sand printing and emphasizing the design freedom that comes with it.

Check out all the **AFS Institute's** upcoming courses online at afsinc.org/courses.

Questions?

Contact **Jen Christian**, Director of Training Solutions, at jchristian@afsinc.org.