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COLDFACTS

CONNECTING A VITAL INDUSTRY

MAY–JUNE 2015

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TRANSPORTATION TRENDS ISSUE

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Lufthansa Cargo handles 100,000 tons of perishable goods per year, helping drive the air cargo industry. (Photo courtesy of Lufthansa Cargo.)

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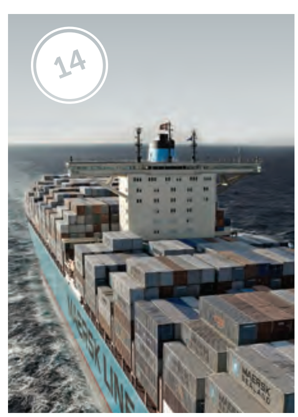

LEADOFF

MESSAGES FROM GCCA LEADERS

Tackling Transportation Challenges

FOCUSING ON transportation has never been more important than it is today for the cold chain industry. The past year has been tumultuous, torturous, and fraught with regulatory minefields, including unheard-of competitive pressures on cold chain transportation. Challenges abound. Solutions are elusive, time consuming, burdensome and — if they can be found — costly.

Capacity constraints in the trucking industry driven by driver and equipment shortages wreaked havoc in 2014. Resulting skyrocketing rates for services devastated shipper transportation budgets, not to mention delivery expectations. Rulemaking by the Federal Motor Carrier Safety Administration inhibited production in the trucking industry. Infrastructure limitations beset all segments of cold chain transportation — rail, ocean and trucking. Proposed regulations mandated by the Sanitary Food Transportation Rule and the Food Safety Modernization Act also hold powerful implications for how all who are engaged in the cold chain will do business in the future.

That's why the International Refrigerated Transportation Association (IRTA) exists. Its mission is to cultivate, foster and develop commercial and trade relations between those engaged in all aspects of producing, importing, exporting, transporting, warehousing commodities requiring temperature and/or atmospheric controls and related services.

Because IRTA embraces its role as an advocate for its members and wishes to be on the forefront of food chain safety — assuring that the American public as well as millions of others around the world will receive food delivered in the safest most secure manner — IRTA has embarked on a mission of establishing best practices in the refrigerated transportation and logistics industries. Focusing on this one challenge will help ensure food safety and provide a resource for those engaged in the cold chain to comply with ever-changing regulations.

To address this, IRTA has created the Refrigerated Transportation Best Practices Task Force, which will establish industry best practices for the transportation and handling of temperature-controlled products. It will work with the industry to gather input and develop a guidance document. It also plans to explore potential alliances with and endorsements from other organizations to give this document maximum credibility.

We are fortunate to have many qualified executives in our ranks to address this challenge. Task force members were selected based on past experience and interest and include representatives from transportation, academia, warehousing, and industry suppliers.

I want to thank the following task force members for their ongoing work in this important endeavor:

- Billy Adams, Food Systems Quality Director, Americold Logistics
- Dan Gayford, Vice President, Business Development Key Accounts, Americold Logistics
- Patrick Brecht, President, PEB Commodities, Inc.
- Robert Fay, President, Florida Freezer LP
- Jim Gray, Marketing Manager, K & J Trucking
- Matt Luckas, Vice President, Supply Chain Services, Hanson Logistics
- Bud Rodowick, Manager, Fleet Performance, Ingersoll Rand
- Buddy Yantz, Blue Bunny/Wells Enterprises, Inc.
- Staff Liaison: Tori Liu, Director of Information Systems, Global Cold Chain Alliance

You will hear more in the coming months about the work of this task force. If any of you have insights to add to this process or questions please contact Tori Liu at GCCA headquarters at tliu@gcca.org or 703-373-4300.

JIM GRAY
2015-16 Chair, IRTA

COLDFACTS

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The **International Association of Refrigerated Warehouses (IARW)**, which promotes excellence in the global temperature-controlled warehouse and logistics industry.

The **World Food Logistics Organization (WFLO)**, which delivers education and research to the industry and empowers economic development by strengthening the global cold chain.

The **International Refrigerated Transportation Association (IRTA)**, which cultivates, fosters and develops commercial and trade relations between all those engaged in the transportation and logistics of temperature-controlled commodities.

The **International Association for Cold Storage Construction (IACSC)**, which provides a forum for innovative ideas, promotes standards of practice, and sponsors professional education programs for the cold storage construction industry.

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PREPARING FOR FDA'S SANITARY TRANSPORTATION OF

FOOD REGULATIONS

Best practices being developed by IRTA to help with compliance.

By Lowell Randel

As reported by International Refrigerated Transportation Association (IRTA) Chairman Jim Gray in this issue's Leadoff on page 4, the Food and Drug Administration's (FDA) proposed regulations for the Sanitary Transportation of Human and Animal Food are poised to have a significant impact on the cold chain.

IRTA's Refrigerated Transportation Best Practices Task Force is working hard to develop best practices to assist the industry in complying with these regulations. This article will highlight some of the major provisions of the regulations that the task force will be addressing in its best practices.

The goal of the proposed rule on the sanitary transportation of human and animal food is to prevent practices that create food safety risks, such as failure to properly refrigerate food, inadequate cleaning of vehicles between loads, and failure to properly protect food during transportation.

According to FDA, the proposed regulations would help maintain the safety of both human and animal food during transportation by establishing criteria, conditions and practices, training and record keeping, for the sanitary transportation of food. The proposed rule addresses the sanitary transportation of both human and animal food traveling via motor or rail vehicle by establishing criteria for the safe transportation of food.

The proposed regulation is very wide in scope and will impact GCCA members throughout the supply chain. Whether your business is focused on transportation, warehousing or logistics, if you are shipping, carrying or receiving food in the United States, you are likely to be impacted by this proposed rule.

The proposed rule defines shippers, carriers and receivers and the regulatory responsibilities that will be placed on each. While the IRTA best practices will focus on carriers, it is important to also understand the requirements placed on shippers and receivers, many of which directly involve carriers.

Shippers

Under the proposed rule, a "shipper" is defined as a person who initiates a shipment of food by motor or rail vehicle (e.g., the food manufacturer who arranges for their food to be shipped). While the definition appears fairly clear on its face, GCCA is seeking clarification from FDA on who might be considered a "shipper" for purposes of the regulation.

One of the unique aspects of the third party logistics industry is the fact that GCCA members very rarely take ownership of the food product that is being stored, handled or transported. The proposed rule does not seem to adequately recognize this situation and how responsibility flows through each step of the supply chain. This is particularly important when determining whom the "shipper" will be for purposes of the rule.

Shipper-specific requirements include:

- Specify to the carrier, in writing, all necessary sanitary requirements, including design requirements and cleaning procedures for the carrier's vehicle and transportation equipment.
- Visually inspect the vehicle or the transportation equipment provided by the carrier for cleanliness and determine that the vehicle or transportation equipment is in appropriate sanitary condition for the transport of the food. Inspection must occur before loading for food not completely enclosed by a container.
- Specify in writing to the carrier the temperature conditions necessary during the transportation operation, including the pre-cooling phase, to ensure proper temperature control.
- Verify that each freezer and mechanically refrigerated cold storage compartment or container has been pre-cooled in accordance with shipper requirements before loading food requiring temperature control to prevent microbiological growth.
- Provide hand-washing facility available to vehicle operators who are expected to handle food that is not completely enclosed.
- Load foods that require temperature control for safety in a manner that prevents rapid and prolific growth of human pathogens.

Carriers

A "carrier" is defined as a person who owns, leases, or otherwise is ultimately responsible for the use of a motor or rail vehicle to transport food (e.g., the common carrier that physically ships the food).

The proposed requirements on carriers listed below highlight the importance of communication between shippers and carriers. It will be critical for carriers to understand what the regulation requires of shippers and how that will impact the information flowing between shippers and carriers. The IRTA best practices being developed will assist carriers in meeting their obligations under the rule.

Carrier-specific requirements include:

- Supply a vehicle and transportation equipment that meets any requirements specified by the shipper and is otherwise appropriate to prevent the food from becoming adulterated.
- Demonstrate to the shipper and, if requested, to the receiver, that the carrier maintained temperature conditions consistent with shipper specifications.
- Meet pre-cooling requirements specified by the shipper.
- In the case of bulk vehicles, provide information to the shipper that identifies the three previous cargoes transported in the vehicle.
- Provide information to the shipper that

describes the most recent cleaning of the bulk vehicle (unless otherwise agreed upon between carrier and shipper).

- Specify practices for cleaning, sanitizing, if necessary, and inspecting vehicles and transportation equipment that the carrier provides for use in the transportation of food to maintain the vehicles and the transportation equipment in appropriate sanitary condition.
- Implement written procedures to comply with the temperature control monitoring requirements.
- Provide and document training to transportation operations personnel in the following areas:
  - food safety issues that may occur during food transportation,
  - sanitary transportation preventive controls and practices,
  - carrier responsibilities.

Receivers

A “receiver” is defined as a person who receives food after transportation, whether or not they represent the final point of receipt for the food (e.g., distribution center). A receiver is not an individual consumer or a person that receives the food on behalf of a consumer, provided the person is not a party to the transaction and is not in the business of distributing food.

Receiver-specific requirements include:

- Provide hand-washing facility available to vehicle operators who are expected to handle food that is not completely enclosed.
- Carry out loading and unloading operations under conditions that will prevent the food from supporting microbial growth.

In addition to the regulatory requirements specified in the rule, the following practices are strongly encouraged:

- Maintain close communication with shippers and carriers.
- Understand requirements placed by shipper on carrier.
- Share any contractual requirements receiver may have with shipper and carrier.
- Coordinate with receivers and shippers to avoid conflicting requirements/practices.

FDA is currently going through public comments received for the proposed rule on sanitary transportation of food, including those submitted by GCCA. The FDA is scheduled to complete this process and issue a final rule by the court-mandated date of March 2016. In the meantime, the IRTA task force will continue developing a best practices guide to assist the industry with compliance and GCCA will continue engaging with FDA to communicate the interests and concerns of the cold chain.

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THE COLD CHAIN AT 30,000 FEET

Shipping pharmaceuticals and perishables are a bright spot in the air cargo industry.

The shipment of perishables and cold chain products is huge business for air carriers. In fact, during the economic downturn the biggest bright spot in the otherwise downtrodden air cargo industry was in pharmaceuticals and perishables.

Not surprising, every major carrier courts the business fiercely and offers a service product tailored for the cold chain. American Airlines Cargo, for example, has state-of-the-art transport equipment for perishable cargo such as produce, seafood, flowers, live tropical fish and more. It also has invested in cold chain infrastructure to support AA Cargo's growing perishables business.

The carrier operates a cooler facility at Dallas/Fort Worth International Airport (DFW). That facility offers over 1,800 square feet of refrigerated space that is maintained between 36 and 38 degrees Fahrenheit. In addition, AA Cargo offers its Cool Perishables program at the carrier's Miami hub.

Lufthansa Cargo offers a special product for perishables called Fresh/td that entails a predominantly temperature-controlled environment during flight and storage, and specially trained personnel that ensure perishables arrive freshly. It utilizes the Perishables Center at Frankfurt Airport. Handling 100,000 tons of perishable goods per year, the Perishables Center is the largest of its kind in Europe. Aside from fresh fruits and vegetables, the facility also handles meat, fish and crustaceans, flowers and plants, and pharmaceuticals.

Information Void

While most air carriers and their subsequent ground partners are adept, for the most part, at handling cold chain products, there are issues. Probably the biggest issue is the lack of information available to shippers and forwarders on the facilities available from end-to-end to ensure that the integrity and quality of the product is maintained throughout the supply chain.

"Frequently, appropriate infrastructure and robust handling processes are inadequate and a lack of standardization is holding the industry back," reports Andrea Gruber, Senior Manager for Special Cargo, International Air Transit Association (IATA). For that reason, IATA contends that a recognized global certification would serve as a guarantee that an organization has the equipment and personnel to handle sensitive goods swiftly and reliably.

A number of technology innovations have been developed to monitor the health of shipments. "Typically these either have a transmitting capability to monitor shipments in real time, or are passive (i.e. non-transmitting)," Gruber says.

Southwest Airlines Cargo offers Cargo Companion™, a state-of-the-art wireless asset tracking device that monitors the location, shock, light, temperature, pressure, and humidity of cargo during transit. The idea is to provide customers with complete visibility regarding the location and environmental status of high-value and time/temperature-sensitive items shipped, but they are available only on Southwest Airlines Cargo airplanes.

"With non-transmitting devices, the main concern is to ensure that airlines are informed that such devices have been placed in the shipment," Gruber says. "There is not likely to be a safety concern, but of course airlines must be sure of exactly what they are shipping."

Gruber also points out that the approval of transmitting devices is subject to approval on an airline-by-airline basis.

"This can be a slow and bureaucratic process so IATA is looking at how the approval process itself could be standardized," Gruber emphasizes.

Pharma Issues

The handling of temperature controlled pharmaceutical products offers an even more complex set of issues. First and foremost is the lack of standardization, compliance and accountability. Add to this is the fact the global pharmaceutical industry, valued at $300 billion a year by the World Health Organization, is also the most regulated, expensive and fragile cargo business in the world today.

"Yet there are no global standards and certification for the handling of pharmaceutical products," Gruber points out.

In addition, freight forwarders and handlers have to cope with multiple audits imposed by pharmaceutical companies and regulators.

The September 2013 approval of the European Union (EU) Good Distribution Practices increased the complexity of pharma transportation, forcing the industry to adapt their cool chain handling. In the last few years, Australia, Canada, China, Indonesia, Ireland, Malaysia, Saudi Arabia and the United States also have all updated cold chain rules.

"These new regulations and requirements, together with the implementation of more complex processes and technology, are forcing the industry to confront multiple changes," Gruber says. "Providing adequate training to employees is essential to adapt to the transformation and guarantee that pharma products are transported appropriately, rapidly, and in compliance with international regulations."

Consequently, IATA has developed the Center of Excellence for Independent Validators (CEIV) on Pharmaceutical Handling that provides global certification for compliance with the standards and regulations, as well as gives shippers much greater confidence in the ability of the end-to-end cargo chain to handle pharmaceutical goods.

Last August, Brussels Airport agreed to become the first European hub for pharmaceutical freight using IATA's CEIV program.

"Brussels Airport is aiming to strengthen its position as a leading gateway for the handling and transportation of pharmaceutical freight in Europe," says Steven Polmans, Head of Cargo at Brussels Airport.

Airport officials hope that by taking the lead, they will persuade other airports to do the same. "It's important that cold chain pharmaceutical products be transported in a standardized, sanitary and secure way throughout the world," says Polmans.

Top to bottom: Lufthansa Cargo handles 100,000 tons of perishable goods per year. (Photo courtesy of Lufthansa Cargo.) Fresh flowers are unloaded from a Martinair passenger aircraft. (Photo courtesy of Miami International Airport.)

The airport has invited a group of 10 local stakeholders (ground handlers, freight forwarders, truckers and airlines) to undergo the CEIV Pharma training, with the goal of becoming certified. Already global supply chain services and solutions company UTi Worldwide has achieved the CEIV Pharma certification in the comprehensive IATA training and pharmaceutical freight certification program at Brussels Airport. Finnair Cargo is also taking part in the program and expects to be certified in early 2015.

"Having a pharma route with the starting point (BRU), the transit point (HEL) and the airline operating the flight certified, is an important topic for the pharma shippers from a risk management and lane validation point of view," comments Juha Järvinen, Finnair Cargo Managing Director. "Finnair Cargo established its second hub in Brussels in April 2013, and the pharma process development is a natural next step in our cooperation."

Gruber points out, however, that the benefit of the CEIV pharma — not just for

Flowers are inspected by U.S. Customs and Border Protection officers at Miami International Airport, the leading U.S. airport for flower imports. (Photo courtesy of Miami International Airport.)

Brussels airport but for all organizations that achieve CEIV certification — will be "to install trust and confidence with shippers that facilities, systems and qualified people are in place to handle their sensitive goods appropriately."

"When combined with the facilities matrix that IATA is developing to catalog and benchmark cold-chain infrastructure, it will give shippers transparency so they can be sure the integrity of their products will be maintained," he says.

IATA expects that in the future, shippers will require some kind of guarantee for the integrity of their goods. "Conceivably, CEIV Pharma registration could give that reassurance to shippers," Gruber adds.

Vital Element

The CEIV certification is particularly important to the air freight industry since the industry is a vital link in the supply chain for time-and-temperature sensitive goods.

The global pharmaceutical logistics market is valued at more than $64 billion and is growing fast. "But at present, annual damages to the pharma industry from spoiled goods can be up to $12 billion a year," remarks IATA Chief Executive Officer and Director General Tony Tyler. "That is an unacceptably high percentage of a $300 billion per-year market."

Moreover in the coming years, much of the growth in temperature-sensitive pharma, such as vaccines and blood plasma, is expected to be in markets outside North America and Europe, which is creating a need for investment in up-to-date cold chain facilities.

"By 2018, spending on cold chain logistics is likely to be over $10 billion per year," Tyler adds.

Airlines have much to gain by capturing a share of this market. But at the same time, there is a growing body of international requirements and regulations with which the air cargo chain must be compliant.

"Certification will help to ensure this," Gruber says. "In addition the CEIV can serve to drive up quality standards and leverage the capacity and capabilities of the industry to handle increasing volumes of these sensitive goods."

Aside from fresh fruits and vegetables, the Perishables Center at Frankfurt Airport also handles meat, fish and crustaceans, flowers and plants, and pharmaceuticals. (Photo courtesy of Lufthansa Cargo.)

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COLD CARGO ON THE HIGH SEAS

Energy conservation, quality assurance and innovative packaging means more cold chain products are traveling by sea.

By Karen E. Thuermer

Steamship lines use GPS technology and remote monitoring while cold chain products are en route to ensure quality assurance. (Photo courtesy of Maersk.)

Shipping cold chain products is big business for ocean carriers, with most carriers providing the service. According to a report released last year from the consulting firm Seabury, ocean carriers transported about 540,000 twenty-foot equivalent units (TEUs) of reefer cargo in 2013.

Take tomatoes, for example. A decade ago, tomatoes were just as likely to be transported by air as in a reefer container by sea. Today, tomatoes are transported almost entirely in containers via steamship line.

While tomatoes encompass just one product in the cold chain, the same holds true for numerous other perishable commodities. In fact, today about 100,000 TEUs are transported by ocean carriers instead of air cargo, reports Seabury, which traces mode shifts for perishables. That mode shift is particularly pronounced in certain perishable commodities like tomatoes, capsicum, fresh fish, lettuce and pineapples, but not only perishables.

"New technology in controlled atmosphere containers, such as Star Cool CA, has the potential to further increase the trend," says Seabury's Maritime Advisor Derek Brand. "CA's ability to slow down the ripening process opens up ocean transport as a viable alternative to air cargo on some of the longer trade routes."

For Maersk Container Industry (MCI),

the maker of Star Cool CA and the container manufacturing unit of the A.P. Moller-Maersk Group, this is a positive development.

"As new trades open up, our customers can improve their business," says Anders Gamborg Holm of MCI sales and marketing. "Add to that carbon emissions savings by almost a factor of 50 when you compare air and sea transport."

Like most steamship lines, cold treatment is a special service offered by Maersk Line. The purpose of cold treatment is to exterminate insects and larvae by maintaining a sufficiently low temperature for a pre-determined period of time. The period of time and temperature required are defined in protocols established by phythosanitary authorities of the importing countries. They vary from country to country whether cold treatment is required or not.

These varying requirements for optimum temperature to ensure freshness also vary from one product to the next. Consequently, steamship lines utilize different technologies to achieve each individual commodity's requirements. For example, Maersk recommends that cantaloupe melons be set at +3 to +5 °C / +37 to +41 °F; strawberries, 0 °C / +32 °F; and chocolate, +10 to +18 °C / +50 to +65 °F.

The recommended setting for bananas is +13.0 °C - +13.5°C / +55°F - +56 °F. According to Maersk, however, if bananas are transported in a normal reefer container, two different types of packaging can be used: polybags (with holes) for transit times up to 22 days, and banavac bags (vacuum packed) for transit times up to 34 days. If the bananas are transported in a CA container, bags with holes should be used (polybag/polypac) to maximize the benefit of the CA technology.

While CA technology is fairly mature, Barbara Pratt, Maersk Line, SeaLand and Safmarine Line–Reefer Management–USA Cluster, emphasizes that CA technology is used because it extends the shelf life of certain cold chain products.

Maersk Line uses two different types of CA systems: the EverFresh system developed by the reefer unit manufacturer Carrier Transicold; and the Star Cool CA system developed MCI.

"Both are membrane-based systems and are applicable to somewhat different commodities," Pratt explains.

A number of manufacturers sell reefer containers to steamship lines. What distinguishes the equipment is the proprietary software that each manufacturer supplies with their reefers. This proprietary software controls the varying components that are part of its reefer unit design.

"This is necessary because each different unit has different parts and operates differently," says Pratt. "The ultimate goal of each manufacturer is to deliver the required temperatures and conditions that help to prolong the shelf life of the various products that are carried in the units."

A distinguishing factor for the steamship lines is how they utilize the software and how the cooling is applied in the container space and to the commodity.

"What Maersk (and other carriers) do is monitor the temperatures on the reefer units — mostly set temperature, supply air temperature, and return air temperature — as those are the most important reefer unit performance standards," Pratt says.

Energy Conservation

Today reefer unit technology has matured thanks to temperature control microprocessors. Consequently, the steamship lines are now able to increasingly concentrate on energy consumption and conservation, particularly given the recent high cost of fuel and the industry practice of slow steaming to conserve fuel.

"Reefer containers are typically one of the largest energy draws, and there's a significant difference in energy consumption between newer units and older, less maintained ones," says Mike Gaffney of Alaris, a maritime energy management consultancy firm.

Steamship lines work closely, whenever possible, with reefer manufacturers to share their concerns and energy conservation goals.

"The design of the reefer unit is what determines the energy consumption of that unit at the different set points that the commodities require," Pratt explains.

In that effort, Maersk Line, in partnership with Carrier Transicold and Wageningen UR Food & Biobased Research in the Netherlands, jointly have developed power-saving software for a container refrigeration unit called QUEST™ II (short for Quality and Energy in Storage and Transport) that is unique to Maersk.

According to a press release issued by Carrier, QUEST II gives Maersk a means to reduce energy required for refrigeration by up to 65 percent while reducing CO2 emissions related to power generation.

"If there are cargos that are not properly pre-cooled, QUEST II will bring them to the desired temperature faster," explains Leo Lukasse of Wageningen UR.

One of the biggest challenges in developing QUEST II was determining the acceptable rate of reduction in air circulation. "The controller does not know how a specific shipment was stowed, so there is a bit of trial and error to find the acceptable reduction," Lukasse says. "But at the end of the day, I think we have succeeded there."

By implementing QUEST II throughout its refrigerated container operations, Maersk Line estimates it saves 350,000 metric tons of CO2-equivalent emissions a year. That is equivalent to cars driving 1.2 billion miles. More important, the power savings makes it possible for Maersk vessels to take onboard more reefer containers than ever before.

Wageningen UR, Maersk Line and Carrier Transicold extensively tested QUEST II on various commodities, including apples, bananas, pineapples, kiwifruit, grapes, garlic, iceberg lettuce, chilled lamb meat, lily bulbs and potted plants. These items were selected because of their known temperature sensitivity and the large volumes in which they are regularly transported.

Containers are lifted from vessels at the Port of Tema, which is the largest port in Ghana. Some shipments contain cold chain products. (Photo courtesy of Maersk Line.)

Quality Assurance

Steamship lines also utilize GPS technology and remote monitoring to ensure quality assurance while cold chain products are in transit.

"Maersk uses GPS technology on our gensets in the United States," Pratt reports.

Maersk first looked at remote monitoring technology in the 1970s. Since then it has changed considerably from power line to cell phone satellite communications.

"As the technology evolves, we look at that continuously," Pratt says. "Obviously, higher value, more temperature-sensitive products such as those in the pharmaceutical industry or chilled commodity segments have different requirements than frozen products."

Over the years, Maersk has also investigated various remote reefer monitoring systems. One device that Maersk Line has recently tested involves a GPS/GSM-based device that could be fitted across its entire fleet of reefer containers. The technology would allow Maersk to manage high value shipments differently than in the past.

Packaging Innovations

Shippers are also introducing innovative technologies in their efforts to extend the shelf life and transit time of their cold chain products. For example, some shippers and

> Everyone's intention is to maintain quality during the refrigerated transit while reducing cost, particularly during the current economy. They still want to move product into various markets where it is not readily available."
>
> — BARBARA PRATT, MAERSK LINE

packers are increasingly using modified atmosphere packaging bags (MAP) — a revolutionary permeable plastic bag that allows the transfer of gases directly through its plastic membrane.

"There are similar technologies, but various types of bags are out there and many are owned by the packing houses or shippers themselves," Pratt explains.

Maersk moves a number of perishables that are shipped in MAP bags. "These are moved more in standard refrigeration units," Pratt adds. "Just about anybody can move those types of products provided their reefer unit maintains temperature."

When it comes to packaging innovations, steamship lines usually get involved when a shipper wants to use a particular technology used in stationary storage that they would like to apply to transportation.

"Everyone's intention is to maintain quality during the refrigerated transit while reducing cost, particularly during the current economy," she explains. "They still want to move product into various markets where it is not readily available."

While fruits and vegetables used to be a seasonable commodity, today consumers are able to purchase these cold chain products year round. "The business is now more consistent, but the seasons remain what they are — given the dynamics of the market," Pratt says. "Everyone is striving for consistency, but it is not the same in each trade lane. Shippers are also focusing on postharvest handling practices and quality control as well as their exclusive packaging to maximize the shelf life of the commodities they handle."

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SOLVING THE TRUCK DRIVER SHORTAGE

Competitive wages are only part of the solution. Trucking companies also need to address lifestyle expectations to recruit and retain employees.

By Sheryl Jackson

It is no secret that there is a truck driver shortage that affects carriers, suppliers and the entire supply chain. In fact, the industry is currently short about 35,000 drivers and the shortfall could grow to about 240,000 drivers by 2023 if it is not addressed now, according to the American Trucking Associations (ATA).

The shortage is due to a multitude of factors, including the number of drivers approaching retirement or reaching an age at which they don't want to drive any longer, increased regulations that place more restrictions on drivers, and a negative perception of trucking as a career for younger people. The challenges faced by carriers are exacerbated by the number of other occupations projected for high growth in coming years.

While the Bureau of Labor Statistics identifies an 11.3 percent growth in employment for heavy truck drivers between 2012 and 2022, other occupations show greater growth — construction workers at 24.3 percent and home health aides and personal care workers at 48 percent, for example. Both of these occupations, along with others projected for growth, offer young people job opportunities that require similar training or education and offer similar wages to trucking. The challenge that trucking industry members must overcome to attract new drivers is the lifestyle issue — mainly, time away from home.

Although some carriers were not able to keep drivers throughout the recession, Jim Gray, Marketing Manager at K & J Trucking in Sioux Falls, South Dakota, and Incoming Chair of the International Refrigerated Transportation Association (IRTA), points out that his company came through the recession with record revenue and were able to keep drivers busy. "We had secured plenty of freight in other areas outside our home base. This allowed us to stay very busy," he says. "Drivers, however, were on the road for longer periods of time."

Not only do long periods of time away from home affect recruitment of new drivers, but it also means older, experienced drivers choose to leave trucking to find jobs that have them home more often as their lifestyle expectations change.

"When our drivers leave us, the reasons are not typically related to pay or work environment, but are related to time away from home," says Gray. K & J found themselves to be a victim of their own success, he points out. "As a result, we modified our operation to improve lane density, create a more predictable environment for our drivers, and seek shippers that provide freight that allows drivers to get home more often," he says.

"We also addressed the time away from home by starting a regional fleet," explains Gray. "This allowed us to rehire some drivers who had left due to time away from home as well as recruit new drivers with different lifestyle requirements." K & J is a long haul, irregular route refrigerated carrier that typically dispatched drivers an average of 1,200 miles per trip for a period of 14 to 17 days at a time. "The creation of regional fleets with trip lengths of up to 800 miles means drivers are guaranteed to be home every five to seven days," he explains.

With retirements, people leaving the job and increasing regulations, the current trucking industry shortage of 35,000 drivers could reach 240,000 in 2023. Carriers as well as shippers are implementing a variety of strategies to retain experienced drivers, extend the careers of drivers and attract new people to the industry to keep trucks on the road. (Photo courtesy of Jaclyn O'Laughlin, American Trucking Associations.)

Hiring drivers who are based away from the main terminal presents its own challenges, admits Gray. "We are a family-owned business that is focused on relationships with all of our employees, drivers, owner operators and customers, so hiring far afield was new for us."

Because drivers represent the company to customers, the priority is hiring the right drivers, which requires not only a process of pre-qualifying applicants, but then bringing them to Sioux Falls for job fitness evaluation, road test and drug test.

"We also take applicants out to eat where we can have casual conversations that give us an opportunity to learn more about their families and the driver's expectations, such as length of time away from home, willingness to drive at night and even shippers for which the driver won't work," notes Gray. "Getting to know the applicant in a casual setting enhances the hiring process because it gives hiring managers a chance to make sure the person is a right fit for the company."

Finding Drivers

Before interviews and dinner conversations can occur, a carrier must first attract applicants. While radio, print and social media outlets are used regularly to promote opportunities for drivers, Gray's company also encourages word-of-mouth advertising from its own drivers. "We incentivize our drivers as well as our owner-operators to recommend us as an employer to drivers they know," says Gray. Incentives such as a 63-inch television set to employees who recommend an applicant who is hired have helped the company successfully recruit drivers.

Many new employees are also receiving signing bonuses, with about 50 percent of fleets surveyed by the ATA reporting signing bonuses for experienced drivers, says Bob Costello, Chief Economist for ATA. "While the median bonus reported is $1,500, we have seen $15,000 bonuses reported," he adds. Drivers with no experience don't necessarily receive signing bonuses, but carriers offer to pay off the loan used to finance driving school tuition over a period of time.

Benefit packages offered are attractive, with companies offering paid time off for holidays and vacations, health insurance and life insurance, says Costello. "Nearly 80 percent of truckload fleets offer drivers paid holidays and 80 percent of private carriers not only offer a 401(k) retirement plan, but also match employee contributions."

Wages are also addressed to keep drivers in the trucks and to attract new people to the industry, says Costello. Findings from a recent ATA survey shows:

- Median pay for drivers ranged from just over $46,000 for national, irregular route dry van truckload drivers to more than $73,000 for private fleet van drivers.
- In seven of the nine categories of drivers covered by the survey, pay met or exceeded the U.S. median household income of just over $53,000.
- While mileage-based pay was a common method, three out of four fleets used multiple methods to pay drivers including the most frequent approach, paying some drivers by the mile and some by the hour.

"We also discovered that 90 percent of fleets are paying drivers for waits of two hours or more," says Costello.

Minimizing driver wait times at loading docks is important for everyone — shippers, receivers and carriers, points out Jeff Miller, Vice President of Sales and Marketing for Select Carriers. "Because there is a shortage of drivers, you want drivers on duty to be driving," he says. "Even if drivers are paid for wait times, it is better to streamline unloading and loading processes to minimize those wait times."

Addressing dock waiting times requires carriers and their customers working together to improve processes. "I am seeing more strategic

In addition to enhanced training that includes use of driving simulators, trucking companies are purchasing trucks with automatic transmissions, more comfortable seats, satellite radio and other amenities to attract drivers to the industry. (Photo courtesy of Jaclyn O'Laughlin, American Trucking Associations.)

relationships between carriers and shippers to improve issues that affect drivers," says Miller.

Strategic alliances or partnerships benefit both parties with carriers able to more accurately plan routes, schedules and prices based on knowledge of future business and with shippers knowing they are the "shipper of choice" whose business is prioritized by the carrier.

K & J Trucking uses another way to maximize productivity and minimize driver wait times — a drop trailer program that means drivers deliver one trailer and immediately leave with another loaded trailer. "It is an extra expense to drop trailers but today it has become an important retention tool, and the expense is outweighed by driver satisfaction," says Gray.

"Shippers are beginning to ask how they can make it easier for a carrier to work with them," says Miller. Everything from cutting waiting times at the loading dock to upgrading driver facilities to include access to restrooms, vending areas and lounges are offered as shippers recognize their role in helping carriers attract and keep drivers.

As suppliers look for ways to address the driver shortage and ensure reliable transportation for their goods, more organizations are evaluating the benefits of private fleets, dedicated fleets and intermodal transportation, says Miller. Creation of private fleets might affect a carrier's driver recruitment efforts in some areas, but contracts to manage a dedicated fleet or to establish regional fleets to supplement intermodal transportation or serve regional distribution centers can benefit some carriers, he adds.

Trucking companies are also looking for ways to extend the careers of existing drivers and, at the same time, make it easier to recruit new entrants by minimizing the discomforts of driving. "We are using Bose® Ride system in our new company-owned trucks to provide a seat that relieves fatigue and back pain drivers experience," says Gray. Drivers report that they are not just more comfortable but believe they are safer drivers when the seat eliminates the distraction of pain or fatigue. Another benefit, according to Gray, is the report that drivers expect longer driving careers as a result of more comfort.

Another strategy companies are using to attract new drivers to the industry is the purchase of trucks with automatic transmissions, says Miller. "It is easier to bring an inexperienced driver onboard with semi- or entirely automatic transmissions because there is less of a learning curve and the driver can focus on driving."

Making trucks simpler to operate and more comfortable to drive opens up the opportunity to recruit younger people and women, says Costello. "We are seeing manufacturers offer tractor trailer seats designed for women, but only six percent of truck drivers today are female so we are missing a segment of the population who are interested in well-paying jobs," he says.

Even as fleets restructure routes and enable drivers to be home every five to seven days, not everyone is attracted to a career that keeps them away from home. Military veterans, however, are accustomed to that lifestyle, so veterans are a key audience for trucking companies, says Miller. "Veterans who have their military license can easily obtain a commercial driver's license."

Another non-traditional audience for carriers recruiting drivers is the immigrant population, suggests Miller. "We've seen a proliferation of immigrants from many different countries who are working to bring their families to the United States and see trucking as a way to support their families."

Retaining Drivers

Competitive wages, generous benefit packages, more attractive schedules and amenities in the truck are all necessary to attract drivers, but the only way to retain good drivers is to recognize them as an integral part of the company's success.

At K & J Trucking, quarterly drivers' meetings cover more than the traditional safety issues. Because driving is a sedentary occupation, topics such as sleep apnea and other health issues are discussed, with resources provided to help drivers maintain their health while on the road. Drivers who have lost weight to reduce the risk of sleep apnea, report feeling more energetic, are more apt to exercise, and feel less tired while driving. "We have figured out how many times someone needs to walk around the truck to make a mile and we even provide collapsible bikes that fit in the cab for those that want to exercise while on their trip," says Gray. "We also coach good trip planning and identify good times to get rest."

More importantly, drivers have an opportunity to see how their jobs affect the overall company in terms of on-time deliveries. "The company president and I are notified of every late delivery," says Gray. "We hang our hat on service, so although we routinely deliver on time 97 or 98 percent of the time, we are always striving to reach 100 percent."

To reach the goal, it is not just management that pays attention to the numbers. "We use the statistics to help us review our processes and identify ways we can improve, but we also use the information to recognize drivers who are delivering on time," says Gray.

A display board in the dispatch area lists all drivers who were on time for 100 percent of deliveries in a month. Known as the "On Time Club," drivers routinely check the board to see who is on it. Recognition is also provided via the company newsletter. Friendly competition and peer pressure combine to engage drivers in the company's efforts to better serve customers, Gray adds.

Engagement, job satisfaction and opportunities for growth are often job features cited by younger people as critical in their choice of careers. While efforts to recognize the value of drivers to the business with financial incentives and improved working conditions are important, don't forget to talk to potential new drivers about careers in the industry.

"It is important to explain that the trucking industry offers a career path that extends beyond the wheel," says Miller. "There are jobs in safety and dispatch departments as well as management for young drivers who are looking for a lifelong career rather than a job."

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TRANSPORTATION INSURANCE TRENDS

A good news/bad news outlook requires face time with your broker and due diligence when choosing partners.

By Donna B. Cook, CIC, CRM

Last year the transportation industry took some big hits. In April 2014, a FedEx vehicle collided with a bus in California, killing 10 people, including five high school students. And in June, a Walmart vehicle hit the comedian Tracy Morgan's vehicle killing, killing an occupant.

In addition, the owner/operator model is struggling with misclassification decisions, especially in California where the unions are making it difficult for owner/operators to enter the Ports of L.A. and Long Beach. Broker liability claims resulting in seven figure verdicts are still popping up, and cargo theft is at an all-time high.

It's not all bad news for the transportation industry, however. Only a few years ago, insurance carriers were trying to get increases on rates — regardless of losses — and today we are seeing a lessening of that. Primary trucking liability rates are, for the most part, remaining flat, unless losses dictate an increase, and cargo pricing has also leveled out. However, with cargo insurance, more insurance carriers are asking for things like trailer tracking devices, temperature monitoring systems and use of secure lots.

Excess pricing is where some standard type increases in premiums can be seen. Flat renewals are doable, but more often than not, there's a small two to five percent increase in rates. For the best renewal pricing, be sure to get in front of the insurance carrier underwriters. At Lockton, we feel this is the most important step of the marketing process. No one tells your story as well as you do! There is no substitute for being in front of the underwriter and explaining to them your history, operation and safety culture.

The owner/operator model is getting harder to maintain in certain states. In California, there is a vast uptick in owner/operator-submitted claims to both the workers' compensation carriers (rather than occupational accident) and to the Division of Labor Standards Enforcement (DLSE). In many situations, the DLSE are classifying owner/operators as employees, regardless of contractual wording.

As for the workers' compensation claims, the same attorneys appear to be representing several owner/operators with the same injury description — cumulative trauma. As a result, most of the insurance carriers that historically wrote occupational accident in the state of California have pulled out. If your fleet of owner/operators is based outside of California, with only a small percentage of owner/operators located in California, the insurance carriers are remaining on the risk. However, if your fleet is based in California, there are only a couple of insurance carriers willing to take on the risk.

In light of this, mono-line workers' compensation for the state of California is more of a challenge than ever. The State Fund is insisting that payroll for owner/operators be included in the payrolls reported and are actively auditing for these exposures, and several insurance carriers have taken the same stance. Many traditional owner/operator-based motor carriers seem to be switching to the employee model to avoid all of these issues.

International Brokering

On a different front, many motor carriers and brokers are now reaching out to include international brokering in their menu of services. As you are no doubt aware, there are normally two coverages involved for international shipments.

The first is the broker's own cargo liability. This is the first line of defense for shippers, however, brokers normally limit their exposure contractually. In those situations where the load is valued at more than the broker is providing, the shipper can purchase shipper's interest coverage.

For GCCA members, this is where particular attention needs to be paid. Most of the shipper's interest forms are based on the international Institute Insurance Clauses. The standard refrigeration insurance clause carries with it a 24-hour deductible. In other words, the insurance policy will not cover any damage to goods within the first 24 hours that the refrigeration unit is not working properly. Keep in mind, this is the standard wording. GCCA members using an international broker need to check on this as better conditions can be negotiated at an increased rate.

For instance, Lockton has a client that ships pharmaceuticals worldwide that have to be kept at a constant temperature. We were able to negotiate with the insurance carrier to cover temperature excursions — if the temperature spikes up or down by eight degrees Celsius or more, the loss would then be covered. GCCA members must discuss the specifics of this coverage with the international brokers they are using.

As always, it's important to have a high level of due diligence when choosing motor carrier and broker partners. Though broker liability claims are not a daily occurrence, when they do happen, they have proven to be very costly. Most of the claims Lockton has seen are in the $3 to $5 billion range. It's important to not only know what criteria the broker is using to evaluate motor carriers, but also to verify that the broker has all of the proper insurance coverage in place to protect you in the event of a claim.

So, in short, remember to get in front of your underwriters. The importance of that face-to-face interaction cannot be overstated. Keep due diligence standards high and be sure that you are partnering with other organizations that have the same high standards as your company does. Keep in mind, the safer each individual trucker is, the better it is for the entire industry.

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UAE: GATEWAY TO AFRICA

UAE positions itself as a trade hub to Africa and beckons international partners.

By Alexandra Walsh

The United Arab Emirates — with its extensive air and sea links to the world, its lightly regulated free trade zones, its critical mass of global expatriate talent and a mercantile leadership that has embraced globalization — has emerged as a key global nexus state of commerce, investment and tourism. It is also evolving as a primary trade and investment partner for the African continent amid "South-South" trade corridors that are transforming the commercial geography of the world."

The description above is taken from "The United Arab Emirates and Africa: A Pivotal Partnership Amid a South-South Commercial Revolution Transforming the World," by Afshin Molavi, Johns Hopkins University School of Advanced International Studies (SAIS).

"Because of its superb transportation and logistical connections, and between 38 and 40 'free zones' that make it very easy for foreign entities to do business there, more than 1000 U.S. companies are currently based in the UAE, including some GCCA members," notes Jim Cramer, Office of the Middle East and North Africa Global Markets, U.S. Department of Commerce — International Trade Administration. "And some of those companies based in Dubai," he observes, "spend 80 percent of their time looking at other markets, such as Africa."

Cramer adds that a large segment of the UAE's economy is now based on attracting foreign companies to the UAE to set up operations to take advantage of the UAE's strategic location. For the UAE, the win is economic activity, employment opportunities for their citizens and more and more trade with regional markets.

The Cold Chain Project

"The Gulf is not a hub for agriculture," points out Cramer. "A lot of food is imported and there is a desire to import more food that is cheaper."

"Africa has a strong cattle industry," continues Cramer. "It's in the UAE's interest to see a cold chain established between itself and Africa so it can import cheaper beef from Kenya for domestic demand in the UAE."

And it is not just beef. The UAE needs all types of food items for domestic demand, such as wheat or flour, according to Cramer. "The UAE not only needs to import such products from places like Africa, but it also hopes to play an ever greater role as a food and agricultural distribution point for the wider Gulf."

Cramer says that is why the U.S. government sees a win-win-win proposition for Africa the UAE and the U.S.

"The Gulf has a need for food and the UAE has a desire to be a re-export hub for food. Thus, there is a pillar of demand," explains Cramer. "Africa's short and medium term growth will in many ways be based on agricultural output, but a lack of technology, including the lack of storage facilities for food products, prevents Africa from significantly increasing its crop yields and export earnings. So, there is a pillar of supply, but one that also has a demand — a demand for agricultural know-how and technology." Cramer notes that is where the U.S. and the American cold chain industry come in.

Much more on the topic of logistics in the Middle East/North Africa/Sub-Saharan Africa Region (MEA) will be discussed at an upcoming conference that the Commerce Department is organizing in May in Dubai. The conference will feature a panel to include GCCA representatives and others involved in regional logistical matters. (See sidebar for details.)

Africa: the Trading Partner

In the year 2000, the entire African continent of 54 countries had a collective GDP of $600 billion — roughly equivalent to the economic output of Spain in that same year. Today, Africa's collective GDP stands at some $2.2 trillion, a remarkable growth turnaround.

Africa has seven of the 10 fastest growing economies in the world. From 2002-12, sub-Saharan Africa achieved average growth rates of 5.7 percent — a significant rise. Its population now exceeds one billion, and rising. By the year 2030, one in five people in the world will live in Africa, and it will be the youngest continent on earth.

A substantial consumer middle class is growing and represents about 15 percent of the population of sub-Saharan Africa. This new consumer middle class is driving growth in finance, media, telecommunications, and infrastructure investments, and more. It is estimated that the African consumer will spend $1.4 trillion a year by the year 2020.

New trade and investment partnerships are forming across the continent, particularly driven by countries in the so-called global "South," according to Afshin Molavi, author of the paper cited at the beginning of this article and now a Fellow at the Foreign Policy Institute and Director of the Global Emerging and Growth Markets Initiative (GEGMI).

"From transformational investments by UAE companies in sea ports, telecommunications, and power to rising air links via UAE-based carriers and globally linked hub airports in Dubai and Abu Dhabi, and an influx of African traders into Dubai, this is clearly a relationship on the rise — and a key South-South trade and investment corridor to watch," says Molavi and adds that global investor sentiment toward the continent has improved dramatically.

There are however, many challenges. Molavi indicates that despite Africa's rise, 30 of its 54 countries are classified as among the least developed, according to the United Nations, and far too many countries are reliant on food imports and, therefore, price volatility. He says weak infrastructure also remains a major impediment to sustained growth, and Africa faces a looming jobs crisis in many countries.

"Many African states stand at a crossroads, driven by a rising and increasingly urbanized middle class, steady growth, and greater global integration, while still facing a myriad of deficits from infrastructure to education to access to finance," reports Molavi.

Dubai: The Gateway

Dubai is strategically located at the heart of several new trade corridors, including the SAMEA (South Asia, Middle East, Africa) corridor of some 3 billion people, as well as

LEARN MORE ABOUT GLOBAL COLD CHAIN OPPORTUNITIES IN DUBAI

Middle East & Africa Business Outlook Conference

May 27-28, 2015

The U.S. Department of Commerce's 2015 Middle East and Africa (MEA) Business Outlook Conference in Dubai will provide attendees an opportunity to interact with more than 20 senior U.S. commercial attaches and specialists to learn about sales and project leads in the GCC (Gulf Cooperation Countries), Sub-Saharan Africa, North Africa and the Levant. The conference is designed for American companies with sales and distribution operations in the UAE who are interested in expanding their sales throughout the Middle East and Africa or companies that are interested in learning more about establishing a presence in the regions. The conference includes a panel all about logistics in the MEA and panelists will include a GCCA executive. For more information, contact **Nasir.Abbasi@trade.gov**

GCCA Cold Chain Executive Connection: Dubai

June 1, 2015

Join 20 senior level cold chain professionals for this one-day, education and networking luncheon. Presidents, CEOs, and Vice Presidents of the temperature-controlled supply chain, and other senior personnel responsible for logistics are invited to attend and learn about global cold chain trends, with Richard Tracy, Vice President of International Programs, Global Cold Chain Alliance. Following the presentation, attendees are encouraged to discuss the topic at an informal networking luncheon.

Learn more at **www.gcca.org/events**

the CHIMEA (China, India, Middle East, Africa) corridor of more than 3.5 billion people. It also has increasingly become a hub of the "New Triple-A" growth economies in Africa, the Americas, and Asia.

The city-state's transport and logistics infrastructure has made it a powerful trade enabler, and Dubai has emerged as a globally recognized hub — of people, goods, and services.

Molavi says that every 90 seconds, a plane takes off or lands in Dubai, and every minute, 100 containers land in Dubai ports. And while Dubai was ranked number one in terms of air connectivity, its ports, too, would rank among the most connected in the world.

"Dubai's Jebel Ali Port is a shipping colossus, among the top 10 busiest container terminal ports in the world, and the largest between Rotterdam and Singapore (with more activity than Rotterdam)," reports Molavi. "Virtually all of the major global shipping lines call on Jebel Ali, making it one of the world's most important transshipment hubs, and an important feeder to African markets. No other Middle East port comes close to Jebel Ali's global shipping penetration."

As a result, trade and investment ties between the UAE and Africa have seen exponential growth. Since 2002, Dubai's non-oil trade with Africa has grown more than 700 percent. From 2008 to 2013, Dubai's trade with Africa grew by 141 percent, hitting $25 billion, according to the Dubai Chamber of Commerce and Industry (DCCI). Much of that trade comes from re-exports, from Dubai ports to the African continent.

Dubai's government has developed a multi-pronged strategy to continue to grow this relationship, indicates Molavi. The Dubai Chamber of Commerce is leading an effort to attract African businesses or Africa-facing companies to Dubai. African company membership in the Dubai Chamber has increased from 2,914 companies in 2008 to 7,906 through mid-2014, a 171 percent growth rate.

Dubai's relentless push to become a world's leading logistics centers will drive future growth in the relationship. A massive new development, called Dubai World Central, will be one of the world's largest logistics centers, that will tie together one of the largest harbors, Jebel Ali, to a massive freight and passenger airport that will be the largest in the world, and a large free trade zone that caters to logistics firms. The airport will have seven runways. Rail transport will be added linking the rest of the United Arab Emirates.

> "As South-South trade grows, the UAE will play a more prominent role as a global nexus state, one that both catalyzes trade via its hub and gateway model, but also as an active investor building infrastructure on the ground."
>
> — AFSHIN MOLAVI, DIRECTOR, GLOBAL EMERGING AND GROWTH MARKETS INITIATIVE

Cramer adds that in this large free trade zone, Jebel Ali is connected to Dubai's new airport by a bonded road. "You can fly in product, unload it and it can go straight to the port and be re-exported to another market without going through customs," clarifies Cramer.

DP World, the Dubai-based ports operator, has been an active investor in Africa, upgrading and managing ports and creating jobs across the continent.

DP World operates eight marine terminals (including non-container terminals) in five African countries (Egypt, Mozambique, Djibouti, Senegal and Algeria), and it has stevedoring operations in Port Elizabeth, Cape Town, Durban and Richards Bay, South Africa. All told, DP World employs some 5,000 people in Africa, the vast majority of whom are locals, and it regularly brings African staff to the Jebel Ali port for advanced training — critical as Africa's container terminal needs grow, it will need highly trained staff.

"In many ways, Africa and Africans are engaging with the core of what drives Dubai — trade, logistics, supply chain, tourism and financial services," observes Molavi. "As a result, as South-South trade grows, the UAE will play a more prominent role as a global nexus state, one that both catalyzes trade via its hub and gateway model, but also as an active investor building infrastructure on the ground."

Cold Chain Logistics, UAE and Africa

"Doing business with Africa through the UAE has many advantages but there are also a couple cautions," advises Cramer. "Doing business with Africa for cold chain companies can be a challenge, so it's very useful to have the UAE as a middleman, and they're great at it, but you're still left managing an additional relationship — an African supplier and a UAE partner."

Cramer also cautions cold chain logistics companies looking at doing business in Dubai not to sign a deal too quickly, but rather to do due diligence. "In the Middle East, personal relationships count for everything. If you want to do business in Dubai in their market or as a third party, I tell companies to go there three times. The first time is a meet and greet, the second time you really get to know each other and the third visit, you delve into the nitty gritty of the contract. They want to make sure you're committed to them."

And, Cramer adds, if any GCCA members are intrigued by doing business in this great global logistics hub but are unable to make the upcoming Dubai conference, all is not lost. "The UAE/Africa/US cold chain concept is a long-term project at the Commerce Department," says Cramer.

"The UAE is very much open for business," sums up Cramer. "And the UAE Embassy is also very open to working with U.S. companies and promoting the export of U.S. goods and services to the UAE in the hopes that once established, these companies will also want to take advantage of the UAE as a trade hub and logistical powerhouse."

Editor's Note: Additional background used in this article was excerpted from, "The United Arab Emirates and Africa: A Pivotal Partnership Amid a South-South Commercial Revolution Transforming the World," by Afshin Molavi.

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The 2015 **GCCA** Assembly of Committees (AOC) meeting will take place July 26-28, in Washington, DC. This event brings together top executives to learn, network, and collaborate. The three-day event includes the AOC Symposium that consists of education sessions where attendees can focus on gathering knowledge and new ideas. At the Committee Meetings, members who serve on a specific committee, or are interested in doing so, participate in closed-door working groups. On Government Agency Visits, members have the opportunity to elevate the importance of certain issues related to the global cold chain industry. Previous agency visits included the Department of Energy, Department of Transportation, United States Department of Agriculture, Occupational Safety and Health Administration and others.

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GCCA launched the new Global Cold Chain Alliance Community, an online, private networking community where members can connect, engage, collaborate, and share critical industry information in real time. This new community will also help GCCA serve members by providing a platform where members can ask questions or provide feedback and get rapid responses. Community participation is complimentary with membership for any employee of a member company. Login with your GCCA member login at community.gcca.org to join the conversation.

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WFLO will hold its 2nd Annual WFLO Institute: Latin America from June 22–June 24, 2015 in Panama City, Panama. This program will provide extended education (in Spanish) around these areas—food science, facilities management, logistics, safety, leadership development, transportation and more. The 2nd WFLO Institute: Latin America will feature Year 1 courses and debut a Year 2 curriculum.

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The 35th **IACSC** Annual Conference & Expo will be held November 5-7, 2015 at the Cosmopolitan Hotel in Las Vegas. This event is the only one in the world dedicated to cold storage construction, design, and maintenance. Attracting more than 200 warehouse operators, contractors, and suppliers, the event features opportunities to discuss and learn about the latest trends, regulations, and technologies impacting cold storage construction, along with a world-class expo. In conjunction with the 2015 United Fresh Convention in Chicago, June 8-10, **IRTA** will host a Cold Chain Executive Connection where 20 senior level cold chain professionals will come together to discuss global cold chain trends during an informal networking luncheon.

2015 CALENDAR UPCOMING EVENTS

JUNE 1, 2015
GCCA Cold Chain Executive Connection
Dubai, United Arab Emirates

JUNE 4-5, 2015
International Cold Chain Logistics Summit & the 7th US-China Cold Chain Logistics Conference
Dalian, China

JUNE 19-20, 2015
IARW South Pacific Chapter Meeting
San Francisco, California, United States

JUNE 22-24, 2015
WFLO Institute Latin America
Panama City, Panama

JULY 26-28, 2015
GCCA Assembly of Committees (AOC)
Washington, D.C., United States

AUGUST 26-28, 2015
RWTA National Conference and Exhibition
Glenelg, South Australia, Australia

SEPTEMBER 9-11, 2015
IARW North Atlantic Chapter Meeting
National Harbor, Maryland, United States

SEPTEMBER 27-29, 2015
IARW Southeastern Chapter Meeting
Fort Lauderdale, Florida, United States

SEPTEMBER 28-29, 2015
Latin America Cold Chain Congress
Guadalajara, Mexico

OCTOBER 15-17, 2015
International Indonesia Seafood & Meat (IISM) Conference and Expo 2015
Jakarta, Indonesia

OCTOBER 19-20, 2015
GCCA South Africa Cold Chain Summit
Cape Town, South Africa

NOVEMBER 5-7, 2015
35th IACSC Conference & Expo
Las Vegas, Nevada, United States

NOVEMBER 19-20, 2015
GCCA India Cold Chain Event
Chandigarh, India

*For more details go to **www.gcca.org/events**

MEMBER NEWS

NEWS FROM MEMBERS OF GCCA CORE PARTNERS

DEMATIC hired Marcos Paduano at its Mexico City Regional Office. He will support client companies that are implementing solutions for receiving-to-shipping operations including storage, order fulfillment, kitting, buffer staging, and packing.

•••

FRIOPUERTO opened a new cold storage facility in Veracruz, Mexico. The company invested $6.4 million in the new facility, which includes 15,196 cubic meters of storage space and 3,000 pallet positions in its first phase. The facility is designed to streamline the processes of imports of perishable goods through the Atlantic coast of Mexico and, in particular, from Spain. Friopuerto plans to expand its export business, mainly to the United States. The company also plans to build another cold storage facility at the Port of Tangiers in Morocco, expected to open in the first quarter of 2016.

AMERICOLD selected Feed the Children as its corporate nonprofit partner and will utilize its logistics resources to support Feed the Children globally in a number of ways throughout 2015 and beyond.

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CASCADE ENERGY announced an agreement with **LINEAGE LOGISTICS** to implement a three-year energy program at all 111 Lineage facilities.

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To support the intergenerational transfer of **CONGEBEC LOGISTIC,** Capital régional et coopératif Desjardins (CRCD) has become its majority shareholder. Fondaction CSN also took a shareholding interest, while Investissement Québec continues to serve as co-owner of the company. Following this transaction, Congebec Logistic Founder Laurier Pedneault, transferred management of the company to his son, Nicholas P. Pedneault, who also becomes a shareholder of the company. The management team remains in place.

CLOVERLEAF COLD STORAGE recently completed upgrades to the rail siding servicing at its Benson, North Carolina warehouse. This investment dovetails with increased industry interest for additional capacity to handle diverted export traffic due to U.S. West Coast port slowdowns.

▼***Below:*** *Javier Romeu, Francisco Romeu, Manuel Cabrera-Kabana (Friopuerto General Manager) and Justin Facey (TIBA Central America General Manager).*

NEW MEMBERS

NEW MEMBERS COMPANY OF GCCA CORE PARTNERS

IOWA COLD STORAGE, LLC acquired **ICS LOGISTICS, LLC** based in Pleasant Hill, Iowa. "Linking both companies together will permit us to offer our customers integrated warehousing and transportation solutions designed to meet individual customer requirements, reduce costs and increase flexibility in dealing with market conditions and delivery requirements," said Gary Jones, Managing Director of Iowa Cold Storage.

●●●

POLYGUARD PRODUCTS' Mechanical Division hired Raj Patel as a technical sales manager. He has 30 years of experience with Dow Chemical in hydrocarbons, plastic and chemical sales. He spent the last 20 years in the building industry, including the fabrication industry for cold and chilled process applications.

●●●

PREFERRED FREEZER SERVICES expanded its Houston Express location. The expansion adds 84,686 sq ft to existing freezer space, 13,058 sq ft to the loading dock, and comprises 2.96 million cu ft of storage capacity.

●●●

THE RAYMOND CORPORATION has been recognized with an IndustryWeek 2014 Best Plant Award for its Greene, New York plant and headquarters.

IARW-WFLO WAREHOUSES

Brado Logística S/A - Corporate Office
Ciritiba, Parana, Brazil

Colfrigos - Ransa Colombia
Bogota, Columbia

East Coast Warehouse & Distribution Corp.
Elizabeth, New Jersey, United States

Radhakrishna Foodland Pvt. Ltd.
Thane, Maharashtra, India

IARW ASSOCIATES

Benesch, Friedlander, Coplan & Aronoff
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Muratec Machinery USA, Inc.
Charlotte, North Carolina, United States

Mitsubishi Research Institute
Osaka City, Osaka, Japan

NXTCOLD LLC
Los Angeles, California, United States

Safety Rail Company
Spring Park, Minnesota, United States

Shinetoolighting America
Glenview, Illinois, United States

Stellana, Inc.
Lake Geneva, Wisconsin, United States

Stoecklin Logistics, Inc.
Atlanta, Georgia, United States

Supply Chain Services, LLC
Oakdale, Minnesota, United States

WFLO MEMBERS

Global Food Properties, Inc.
Altadena, California, United States

Santee Cooper
Moncks Corner, South Carolina, United States

IRTA

Government of Aragón - Aragón Exterior/Invest in Aragón
Zaragoza, Spain

Muratec Machinery USA, Inc.
Charlotte, North Carolina, United States

Radhakrishna Foodland Pvt. Ltd.
Thane, Maharashtra, India

IACSC CONTRACTORS

Texo Industrial, LLC
Republic, Missouri, United States

IACSC SUPPLIERS

EMCO Panel System Ltd.
Co. Kildare, Ireland

NXTCOLD LLC
Los Angeles, California, United States

COOL PEOPLE

PROFILING INFLUENTIAL PEOPLE CONNECTED TO THE COLD CHAIN INDUSTRY

Mumin Isamiddinov (right), works with Ilhom Nosirov, a cold store operator in the Andijan province of Uzbekistan to check ethylene gas levels in a cold storage room after warm apples have been unloaded. Evacuation of ethylene thru special venting tubes helps to slow down the ripening process and reduce moisture loss.

> "The AgLinks Plus develops the capacity of local service providers to help farmers and improve choke points between producers and buyers, and provides farmers with technical assistance and training to increase productivity and incomes."
>
> — MUMIN ISAMIDDINOV

MUMIN ISAMIDDINOV

Technical expert

AgLinks Plus

Mumin Isamiddinov is the Global Cold Chain Alliance's technical expert on the AgLinks Plus project in Uzbekistan, which is funded by the United States Agency for International (USAID) and implemented by DAI, a GCCA subcontractor. Isamiddinov is also Commercial Manager of a local consulting firm, Unicon-S LLC. He specializes in agribusiness value chain management, specifically in best postharvest practices.

CF: Could you describe the AgLinks project in Uzbekistan?

MUMIN ISAMIDDINOV: AgLinks Plus works to increase agricultural incomes by improving the competitiveness of Uzbekistan's fruit and vegetable sector, a major driver of the Uzbek economy. It supports farmers, agrifirms, processors, and other value chain participants. It analyzes links between farms and markets — including transport, storage, sales and export — and identifies ways to improve these links and upgrade agribusiness. It helps agro-processing companies access new domestic, regional, and international markets and meet stringent market requirements and standards. AgLinks Plus develops the capacity of local service providers to help farmers and improve choke points between producers and buyers, and provides farmers with technical assistance and training to increase productivity and incomes.

CF: You purchased a refrigerated truck for the AgLinks Plus project. Why was that necessary?

MI: The cold chain did not exist in areas where the daytime temperatures could be twice as high as at night. The product, which was harvested all day long in hot conditions, was transported to cold storage in whatever was able to move and carry, including open trucks and closed trucks, and nothing was refrigerated. It was customary for the producers to believe cold is bad for the product so they tried to keep it as warm as possible to increase softness and sugar. The temperature of the product was jumping up and down when it was supposed to be even.

The only solution was to bring in a small refrigerated truck. We studied early morning harvest temperature retaining tools and their effect on storage and final product performance. We researched refrigerated trucks and transportation of cold stored products in those trucks to local destinations. Then I raised the capital and invested it in one truck. We could have hired a truck but we would not have been able to manage the conditions and processes. The ownership is important.

CF: What impact has the truck had and was it worth it?

MI: We proved that letting Mother Nature cool down the product for you and harvesting in the early morning temperatures is vitally important in getting the best out of the product. We proved that the product should be transported in appropriate conditions. But one problem we did face is that the receiving units were not equipped or ready to receive cold products. So we had to reorient our best practices towards export and we closed down our internal market operations except for limited to small-scale projects only. We did achieve a lot in export markets with our new methods. Our partners started to incorporate the cold chain into their cold storage operations.

CF: Do you think your truck has contributed to the future of refrigerated transportation as part of the cold chain in Uzbekistan?

MI: There are always ways to improve and we proved that with one small-scaled truck equipped with the necessary tools. The truck was promoted and demonstrated as an indispensable part of the produce chain and now four additional trucks have been purchased. When I purchased the truck, there were no other small-scale refrigerated trucks in the market, now we see them a lot. With the increase in export volumes, my truck had to leave its role to bigger trucks. Now we can see in the market various types of bigger trucks carrying products from cold stores to reloading stations for exports only. My truck already played its role in the project.

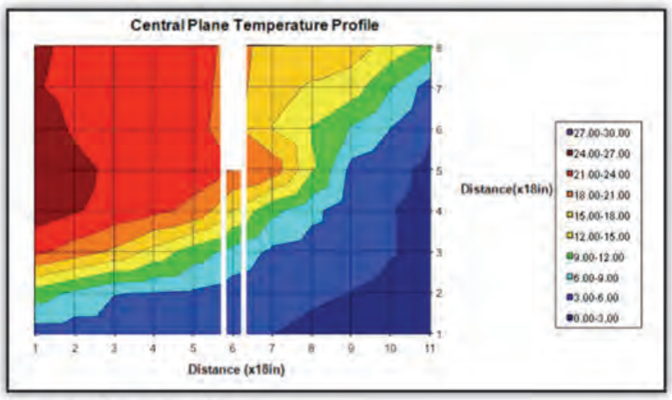
JAMISON: INDEPENDENT THIRD-PARTY TEST LAB RESULTS

The HCR Door results are in: *80% efficient* in blocking air infiltration

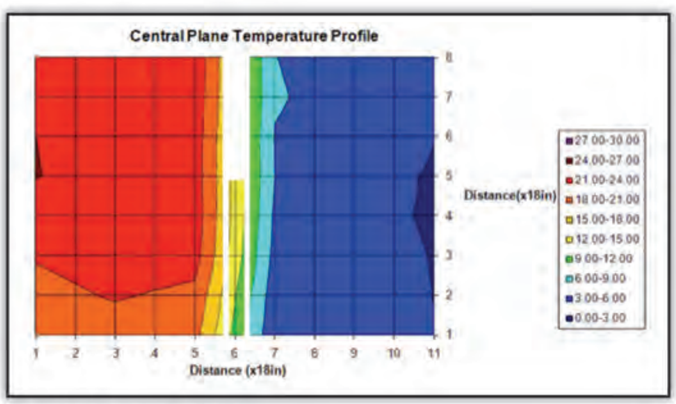
The HCR calorimetric environmental test chamber at CTS Labs in Urbana, IL

HCR pioneered the air door market 37 years ago and now has over 4000 worldwide installations. Until recently there was no authoritative, independent third-party test lab data that documented the efficiency of the unique HCR air door. A three-month evaluation was recently completed, and those results are now available to the marketplace.

Creative Thermal Solutions (CTS) is a leading test lab for products in the HVAC and refrigeration industries. They test products that claim to offer increased energy efficiency, reduced energy consumption, and environmental sustainability. CTS labs recently conducted an extensive thermal performance analysis on HCR air doors. ***The results verified that the HCR Model AC (Single Air Door) is 80% energy efficient* when stopping air infiltration and energy transfer between rooms with different temperatures.***



Temp profile: air door off



Temp profile: air door on

HCR Air Doors - Remove All Obstacles

HCR demonstrates the greatest energy efficiency for doorways with over 10% DOT (door-open time), and can represent considerable and even dramatic energy savings in the right application. In addition to energy savings, HCR significantly reduces moisture from entering the cold room, and prevents icing and condensation on floors, walls, and products. Reduced frosting of the refrigeration cooling coils will result in fewer defrost cycles.

For more details about the CTS test results, visit www.hcrairdoors.com

JAMISON | HCR Air Doors

www.jamisondoor.com

800-326-7700

*For details and the lab performance report visit www.hcrairdoors.com, contact your Jamison or HCR representative, or call 800-326-7700. Request the White Paper on the Evaluation of Horizontal Recirculatory Air Curtain Efficiencies – Cooler to Conditioned Space, D. Rhyner, HCR, Inc.