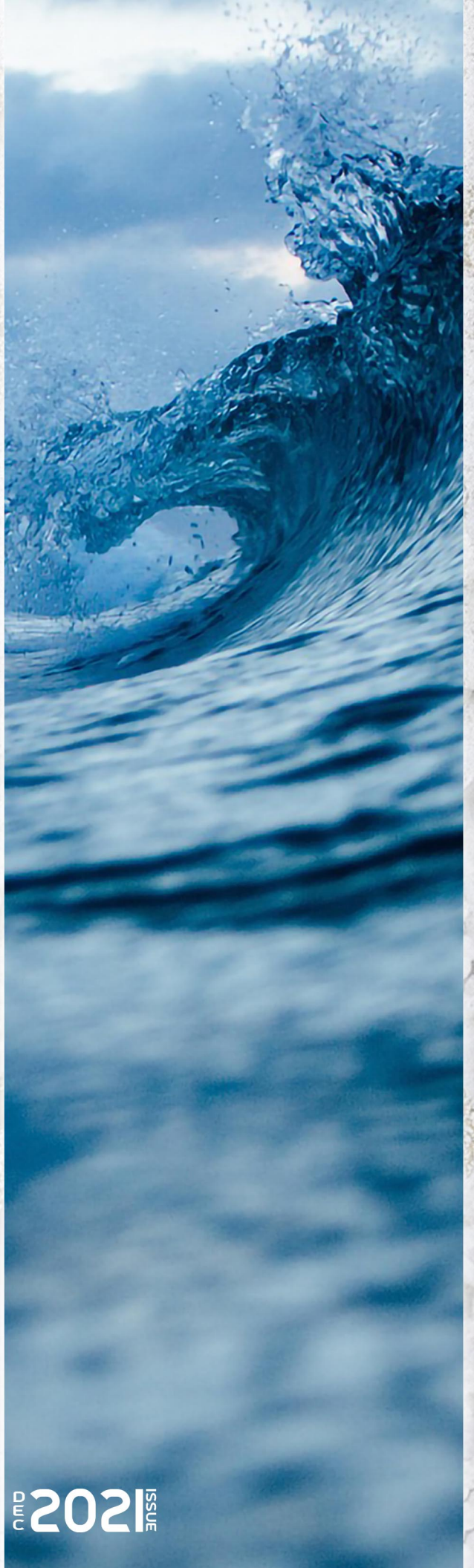


BLUE PACIFIC

The official newsletter of DNR Offshore and Crewing Services, Inc.



2021 ISSUE

GOOD JOB TRAINING & RECRUITMENT DEPARTMENT

In line with the company's effort to produce more highly skilled work force and to serve our valued clients more efficiently, DNR Offshore Training & Recruitment Department is in full throttle amidst the still ongoing pandemic and the holiday season. This proactive approach was directed by our CEO and entrusted the daunting task to Ricky Ramos, concurrent Training & Recruitment Manager and his technical assistant, Ronald S. Ybañez, Recruitment Officer:

More often than not and because of the urgent request of principal, assessment & trade test runs throughout nightfall. Our Assessors are made up of highly experienced people on their trades, while most of them had experienced working with us before, like Frovener P. Dasigan for Welding, Mssrs. Bayani Atienza & Joselito Gonzales for Fitters and Mssrs. Rener G. Clanor and Anthony Datinggaling for Scaffolders. DNR Offshore has chosen the Philippine Welding Society, Inc. for the assessment & Trade Testing of welders & Fitters, while CTSI for scaffolders it being that we have entrusted to them our SAFWAY Scaffolding System for the exclusive use of our training department.

It is expected that once we ink the final agreements with other prospective clientele in the maritime industry particularly on support & moving vessels as well as luxury leisure cruises, our demands for more assessors of the same high standard as that of our technical ones will increase.

Keep up the good work team and HAPPY NEW YEAR to all of us.



ALL ABOUT MARKETING

Maribel S. Flores
Marketing Executive

Whatever your company's focus within the marine industry — whether fishing, boat/ship building, repairs, marine engineering, shipping, yacht sales, rentals or supplies, marketing your business/products must move with the times.

That means you'll have to learn the ropes of inbound marketing if you want to stay ahead of the game. Inbound marketing attracts your potential customers while they're searching the internet or browsing social media. Outbound marketing techniques like email blasts and print ads are still relevant, but inbound is focused on relevancy and timeliness, and it yields higher ROIs.

As a maritime company, what should you be doing to convert business online? Try these 4 inbound marketing tips so you can get underway!

1. Fathom out your target customers

Who is your target buyer? They will also be the target audience for your online content, so it's essential you know them inside out. That way, when you start writing the copy for your website, blog posts and social media posts, you'll be able to gear this content specifically to them.

Before pushing the boat out and investing in non-thought out marketing, important details to know about your potential customers are:

- What is their job role and company size? (business customers)
- What are their wants and needs?
- What would drive them to purchase your product or service?
- What would put them off purchasing from you?

If you're not sure about any of this information so far, you can always survey your existing customers via email, or collect details about them via your website forms in exchange for free content.

It's a good idea to build profiles of your target customers — known as buyer personas — and then use these to inform your content calendar, writing style and search keywords.

2. Build a ship-shape web presence

From your social media profiles to your website, keep your brand identity and messages consistent. This makes for a consistent, recognizable online presence that your customers will feel they can trust.

This goes for everything from the copy in your PPC ads and landing pages, to the look and feel of your website. Create a style guide for your blog, social media and editorial content that includes your brand voice, the tone you use and your vocabulary. These shouldn't be random choices; they should reflect the nature of your business and your customers.

3. Don't be a loose cannon — automate your marketing

As marketing moves with the times, so does marketing technology. Marketing automation services like HubSpot allow you to schedule or social media posts and blog posts, while you can use AdWords to automate the bidding for your PPC ads. For email marketing campaigns, we recommend MailChimp or Campaign Monitor.

Automation means you don't need to manually click publish or send throughout the day, week or month. You can set things up ahead of time and then leave them; it's all plain sailing! Just make sure you first identify the best times of day or days of the week to post or send email for your customers by experimenting and then measuring clicks and conversions.

4. Track and optimize your way to calmer seas

In the beginning of an inbound marketing campaign, it might feel a little unsafe and unpredictable. But long term, you need to give the 'hit and hope' approach a wide berth. As soon as you start publishing content on your website and promoting it, you can begin collecting data to help you optimize your marketing.

Numbers such as visits, clicks, new contacts, and the information about where these people originally heard about you (organic search, email, social media, etc.) will be invaluable to you as you navigate your way to an optimized, data-driven campaign.

Your email marketing provider will present your data as a report, showing open rates and click through rates. Use these to compare the performance of each email you send, and draw conclusions about the best subject lines and copy to drive more conversions.

Without further ado, it's time to form your maritime marketing plan. Anchors aweigh!

SOURCE: Four (4) Inbound Marketing Tips for the Maritime Industry
BRECKENBRIDGE
The Growth Agency



LANDMARK DUTCH STORAGE PROJECT TO BE TWINNED WITH WIND AND SOLAR

An energy storage system set to be the largest ever built in the Netherlands is to be co-located with wind and solar assets in a microgrid at Wageningen University & Research test center in Lelystad.

The project will store the equivalent of the annual energy consumption of more than 9000 households a year and will be the first large-scale energy storage project based on lithium iron phosphate chemistry in Europe.

And it also marks the first Dutch deal for Finnish energy technology company Wärtsilä, which will supply the 25 MW/48 MWh system to GIGA Storage BV.

Dutch energy company Eneco will use the battery to make its energy services more sustainable, add more renewables to the grid, and regulate frequency and reliability on the grid.

GIGA Storage chief operating officer Maarten Quist said the battery will help stabilize the Netherlands' electricity grid and save a maximum of 23,000 metric tons of carbon dioxide emissions per year.

The Buffalo battery is based on lithium iron phosphate chemistry, which Wärtsilä says provides enhanced safety features and uses less vulnerable natural resources.

The Dutch government has a goal to reduce greenhouse gas emissions by 49% by 2030 and a 95% reduction by 2050. Recent reports suggest the Netherlands will need between 29 and 54 GW of energy storage capacity by 2050.

Article originally published by Power Engineering International.
[@renewableenergyworldcontentteam](#)

GREEN ELECTRICITY CAN BECOME THE CHEAPEST ENERGY BY 2050, SAYS STUDY

Cost-slashing innovations are underway in the electric power sector and could give electricity the lead over fossil-based combustion fuels in the world's energy supply by mid-century, a study finds

Cost-slashing innovations are underway in the electric power sector and could give electricity the lead over fossil-based combustion fuels in the world's energy supply by mid-century, according to Potsdam Institute for Climate Impact Research (PIK)

When combined with a global carbon price, these developments can catalyse emission reductions to reach the Paris climate targets, while reducing the need for controversial negative emissions, a new study finds.

"Today, 80 per cent of all energy demands for industry, mobility or heating buildings is met by burning - mostly fossil - fuels directly, and only 20 per cent by electricity. Our research finds that relation can be pretty much reversed by 2050, making the easy-to-decarbonise electricity the mainstay of global energy supply," said Gunnar Luderer, author of the new study and researcher at the Potsdam Institute for Climate Impact Research as well as professor of Global Energy Systems Analysis at the Technical University of Berlin.

For the longest time, fossil fuels were cheap and accessible, whilst electricity was the precious and pricier source of energy, Luderer said. He stated how renewable electricity generation - especially from solar photovoltaics - has become cheaper at breath-taking speed, a pace that most computer simulations have so far underestimated.

"Over the last decade alone prices for solar electricity fell by 80 per cent, and further cost reductions are expected in the future. This development has the potential to fundamentally revolutionize energy systems. Our computer simulations show that together with global carbon pricing, green electricity can become the cheapest form of energy by 2050, and in the long-term supply up to three-quarters of all demand," Luderer explained.

Reference: BUSINESS STANDARD



WILL YOU NEED A COVID-19 BOOSTER SHOT TO CRUISE IN 2022? PROBABLY

With the emergence of the omicron variant of COVID-19 top of mind for most people as we enter 2022, the question already on the lips of most cruisers is: "Will I need a COVID-19 booster shot in order to take a cruise?"

Though no cruise line has yet to mandate booster shots, the answer is: probably.

CRUISE LINES MODIFY COVID-19 POLICIES TO MENTION BOOSTER SHOTS

Since the omicron variant of COVID-19 first emerged in November of 2021, cruise lines have begun swiftly changing policies to keep pace with the virus. Mask usage onboard has been required by every major cruise line, and cruise lines such as Carnival, Holland America and Princess have temporarily banned smoking onboard casinos in a bid to have passengers keep their masks on their faces as much as possible.

Cruise lines have also begun quietly updating their COVID-19 guidance to include mention of COVID-19 booster shots, but stopping short of actually requiring them as a condition of setting sail.

On Royal Caribbean's COVID-19 vaccination requirements webpage, the line has inserted a new disclaimer regarding booster shots, stating, "We strongly recommend that fully vaccinated guests receive a booster dose when they become eligible to do so, though it is currently not required."

Other cruise lines have followed suit, introducing similar language into their COVID-19 guidance to include mention of booster shots.

The mere insertion of that language around boosters is enough to reasonably predict that, at some point, cruise lines will require boosters for COVID-19. When, and who that will apply to, is still unknown.

COVID-19 BOOSTER SHOTS ARE ALREADY REQUIRED IN SOME DESTINATIONS

Already, COVID-19 booster shots are being required in some parts of the world.

On December 16, 2021, France began requiring cruise passengers wishing to go ashore to provide proof of having received a COVID-19 booster shot. Impact was minimal due to the reduced sailings currently in the region, but the move nonetheless signaled that booster shots would become a thing of the future. The Washington Post reports Israel will require its citizens to be boosted in order to maintain their COVID-19 pass. The European Union, meanwhile, has already mulled the idea of requiring booster shots for everyone with a full dose of a COVID-19 vaccine taken nine months ago or more.

But as we saw with the emergence of the world's first vaccines against COVID-19, cruise lines were early-adopters of vaccination requirements, as were individual countries and ports of call.

In November, Norwegian Cruise Line CEO Frank Del Rio – himself a strong proponent of requiring mandatory proof of vaccination aboard the company's three cruise brands – said vaccines will be required "indefinitely."

That same month, Disney Cruise Lines became the first major line to require that children aged five and up be vaccinated against COVID-19.

And with the U.S. Centers for Disease Control and Prevention about to reassess its long standing Conditional Sail Order on January 15, 2022, it's a fair bet that cruise lines will do everything in their power to go above and beyond any new requirements that may be added.

WHEN WILL I NEED A COVID-19 BOOSTER SHOT TO CRUISE?

At this point, that's the big question – and the answer is currently unknown. It is, however, a safe bet to assume that, at some point in the coming months, passengers (and travelers) will only be considered fully vaccinated if they have completed their standard vaccination regimen, along with an additional booster shot.

Although eligibility requirements for booster shots currently vary between jurisdictions, would-be cruisers should plan on getting their booster shot as early as possible to ensure they are ready to set sail.

If there's one thing this COVID-19 pandemic has taught us, it is that new requirements often come in quickly, with little to no advance warning.

SOURCE:

Aaron Saunders
News and Features Editor, Cruise Critic



LEISURE CRUISE
DIVISION

A FEW GOOD MEN ARTICLE COL. JESUS A. VILLAMOR



Jesús Villamor was one of six children of Associate Justice of the Supreme Court of the Philippines, Ignacio Villamor of Bangued, Abra, and Mariquita Flores. He studied commerce at De La Salle College (now DLSU-Manila) in Manila, hoping to pursue a business career.

During summer, he and his family went to Baguio and stayed in one of the government houses on Hogan's Alley, which are now assigned to Justice of Court of Appeals, just below Cabinet Hill along Leonard Wood Road. One of his playmates during this time was Roberto Lim, son of Brigadier General Vicente Lim.

Jess (as one of his friends would call him), at the age of 14 to 15, was already an aviation bug. He was worried that because of his short height, he wouldn't pass the physical exam. He learned how to fly in the civilian flying school in Grace Park that was located next to La Loma Cemetery. Roberto Lim took his first airplane ride with Jess in a Stearman plane. He also signed Roberto Lim's first civilian license.

He joined the Philippine Army Corps (PAAC) Flying School in 1936 and was sent to the United States for training, and after three years, began flying B-17's as part of the US Army Air Forces Strategic Bombing Squadron. In 1939, Villamor assisted in teaching Dwight D. Eisenhower how to fly.

Philippine Army Air Corps service

Upon his return to the Philippines, Villamor was assigned to lead the 6th Pursuit Squadron (now 6th Tactical Fighter Squadron) in Nichols Airfield. On July 26, 1941, by order of President Franklin D. Roosevelt, the Philippine Army was incorporated into the United States Army Forces in the Far East. Following this, PAAC was inducted into the Far East Air Force on August 15, with 141 pilots, 17 ground officers, 1,200 enlisted men, and 64 aircraft, with Maj. Basilio Fernando as its Commanding Officer. No less than Gen. MacArthur himself was the inducting officer. Gen. MacArthur forecasted that Japan will commence with its attack in April 1942, and event at the earliest January 1942.

Eight hours after the attack on Pearl Harbor, December 8, 1941 10:00am PST, bombers and fighters of the Imperial Japanese Army and Navy took off from Takao Airbase in Formosa and attacked sites around Baguio and Iba Airfield in Zambales, with the second wave attacking Clark Air Base and Naval Station Sangley Point. The following day, the FEAF's capabilities were crippled as it found half of its aircraft inventory destroyed, the Japanese in turn only lost 7 aircraft in the two days of raids giving them practical air superiority over Northern Luzon.

With the FEAF crippled, the 6th Pursuit Squadron at Nichols Airfield was one of the remaining units available to meet the enemy. At 11:30 am on December 10, while the unit was having lunch, general quarters was sounded, and the PAAC would have its baptism of fire. Capt. Villamor, along with Lieutenants Godofredo Juliano, Geronimo Aclan, Alberto Aranzaso, and Jose Gozar met another wave of Mitsubishi G3M bombers and Mitsubishi A6M Zero fighters over the skies of Zablán Airfield and Pasig with their Boeing P-26 Peashooter. Despite the disadvantage, Villamor and his squadron was credited with four kills - one Mitsubishi G3M bomber and three Mitsubishi A6M Zeros. Two of them by Villamor himself.

The following day, the 6th Pursuit Squadron moved to Batangas Airfield north of Batangas City. On December 12, a force of 27 bombers and 17 fighters targeted Batangas Airfield, and on this day in Philippine military history a Filipino military aviator died in the line of duty. Lt. Cesar Basa was on patrol has been flying for two hours and only had 15 minutes of fuel left when the Japanese were heading to Batangas. Despite being outnumbered 7-1, Lt. Basa engaged the enemy and was still able to land his damaged aircraft in Nichols Airfield. However he was fatally wounded due to ground strafing by a Mitsubishi A6M Zero.

The 6th Pursuit Squadron returned to Nichols Airfield on December 13 with 4 remaining P-26s, and on the following day, Lt. Gozar in turn for the last time in the war was able to scramble by himself to meet the Japanese raiders. Lt. Gozar was able to survive the encounter against three Japanese Zeros with one unconfirmed kill, and land his battered aircraft.

While greatly outclassed and outnumbered, the accomplishment of the 6th Pursuit Squadron has become of a legend and a source of encouragement among the ground forces and the civilians who witnessed their defense over the skies of Luzon. On December 15 Capt. Villamor, Capt. Colin Kelly, and Lt. Gozar were personally awarded by Gen. Douglas MacArthur the Distinguished Service Cross for their valorous defense of the airspace above Manila. Lt. Gozar's wingmate, Lt. Godofredo Juliano on the other hand received the Gold Cross.

Upon activation of War Plan Orange, the 6th Pursuit Squadron and the rest of the PAAC were ordered to destroy their aircraft inventory. Capt. Villamor and his unit were ordered to a strategic retreat to Bataan and transformed their mission to air defense. Capt. Villamor ordered his unit to rally in Bataan and take up infantry and air defense roles. He would join Gen. MacArthur and Pres. Manuel L. Quezon on the ferry to Fort Mills on Corregidor Island on December 24, 1941. Capt. Villamor and his unit were still hoping to receive new aircraft from Australia. However, the shipment of the Pensacola Convoy never came through.

On February 9, 1942, Capt. Villamor conducted a reconnaissance mission over occupied Cavite in a PT-13 escorted by four American P-40 Warhawks. No sooner, 6 Japanese Zeros appeared. Capt. Villamor's aircraft damaged but was still able to land it safely. One P-40 was lost at the cost of 4 Zeros. Capt. Villamor's mission proved to be a success, as the films were delivered, and the information was collated with the ground observers, and counterbattery fire was put into effect.

After his squadron was destroyed, Villamor continued his war against the Japanese as an intelligence officer. Having escaped the fall of the Philippine Islands, volunteering, Villamor received orders to return to the Philippines. Promoted to major, Villamor served as a commander in the Allied Intelligence Bureau. On December 27, 1942, Villamor was part of a team inserted by the submarine USS Gudgeon into the Philippines making contact with Roy Bell on Negros. Villamor went on to work with Bell, who would then make contact with James M. Cushing in 1943. Establishing a chain of direct communication from the Philippines with General Douglas MacArthur in Australia, he coordinated the activities of various guerrilla movements in Luzon, Mindanao, and the Vizayas. Completing his mission Villamor returned to Australia. Villamor's reports from the field were met with indifference by some within the SWPA, but were later publicly lauded by President Eisenhower.

After World War II, Villamor served with the Military Assistance Advisory Group in the State of Vietnam during 1951 and 1952, and once again in 1955.

Death

Ret. Col. Villamor died on October 28, 1971, in Georgetown University, Washington D.C., United States, and was buried with military honors at the Libingan ng mga Bayani in Fort Bonifacio, Taguig, which is located about two kilometers from the Philippine Air Force Headquarters which bears his name.

Awards

Villamor Air Base Monument

For his bravery as a pilot and ingenuity as an intelligence officer, President Ramon Magsaysay awarded Lieutenant Col. Villamor the Medal of Valor, the highest Philippine military bravery decoration, on January 21, 1954. In addition, Villamor was a two-time recipient of the Distinguished Service Cross, and one-time recipient of the Distinguished Conduct Star. The Philippine Air Force's principal facility in Metro Manila which was first known as Nichols Field, then later Nichols Air Base, was renamed Col. Jesus Villamor Air Base in his honor.

SOURCE : WIKIPEDIA



CULTURE: YOUR ENVIRONMENT FOR PEOPLE AT WORK

MICHELLE G. VALENCIANO
Human Resource Manager

Provide a positive, productive environment for employees at work

People in many workplaces talk about organizational culture, that mysterious term that characterizes the qualities of a work environment. When employers interview a prospective employee, they often consider whether the candidate is a good cultural fit. Culture is difficult to define, but you generally know when you have found an employee who appears to fit your culture. He just feels right.

Culture is the environment that surrounds you at work all of the time. It is a powerful element that shapes your work enjoyment, your work relationships, and your work processes. However, culture is not something that you can see, except through its physical manifestations in your workplace.

In many ways, culture is like personality. In a person, the personality is made up of the values, beliefs, underlying assumptions, interests, experiences, upbringing, and habits that create a person's behavior.

Culture is made up of such traits shared by a group of people. Culture is the behavior that results when a group arrives at a set of generally unspoken and unwritten rules for working together.

An organization's culture is made up of all of the life experiences each employee brings to the organization. Culture is especially influenced by the organization's founder, executives, and other managerial staff because of their roles in decision making and strategic direction. Still, every employee has an impact on the culture that is developed at work.

Culture can be represented in a group's language, decision making, symbols, stories and legends, and daily work practices.

Something as simple as the objects chosen to grace a desk tells you a lot about how employees view and participate in your organization's culture. Your internet sharing in programs like Skype and Slack, your bulletin board content, the company newsletter, the interaction of employees in meetings, and the way in which people collaborate, speak volumes about your organizational culture.

Central Concepts

Professors Ken Thompson (DePaul University) and Fred Luthans (University of Nebraska) highlight seven characteristics of culture through an interpretive lens.

1. Culture = behavior. Culture describes the behaviors that represent the general operating norms in your environment. Culture is not usually defined as good or bad, although aspects of your culture likely support your progress and success and other aspects impede your progress. A norm of accountability will help make your organization successful. A norm of spectacular customer service will sell your products and engage your employees. Tolerating poor performance or exhibiting a lack of discipline to maintain established processes and systems will impede your success.

2. Culture is learned. People learn to perform certain behaviors through either the rewards or negative consequences that follow their behavior: When a behavior is rewarded, it is repeated and the association eventually becomes part of the culture. A simple thank you from an executive for work performed in a particular manner molds the culture.

3. Culture is learned through interaction. Employees learn culture by interacting with other employees. Most behaviors and rewards in organizations involve other employees. An applicant experiences a sense of your culture and his or her fit within your culture during the interview process. An initial opinion of your culture can be formed as early as the first phone call from the human resources department. The culture that a new employee experiences and learns can be consciously shaped by managers, executives, and co-workers. Through your conversations with a new employee, you can communicate the elements of the culture you'd like to see continued. If this interaction doesn't take place, the new employee forms his or her own idea of the culture, often in interaction with other new employees. This fails to serve the continuity a consciously created culture requires.

4. Sub-cultures form through rewards. Employees have many different wants and needs. Sometimes employees value rewards that are not associated with the behaviors desired by managers for the overall company. This often is how subcultures are formed, as people get social rewards from coworkers or have their most important needs met in their departments or project teams.

5. People shape the culture. Personalities and experiences of employees create the culture of an organization. For example, if most of the people in an organization are very outgoing, the culture is likely to be open and sociable. If many artifacts depicting a company's history and values are evident throughout the company, people value their history and culture. If doors are open, and few closed-door meetings are held, the culture is unguarded. If negativity about supervision and the company is widespread and complained about by employees, a culture of negativity, that is difficult to overcome, will take hold.

6. Culture is Negotiated. One person cannot create a culture alone. Employees must try to change the direction, the work environment, the way work is performed within the general norms of the workplace. Culture change is a process of giving and taking by all members of an organization. Formalizing strategic direction, systems development, and establishing measurements must be owned by the group responsible for them. Otherwise, employees will not own them.

7. Culture is difficult to change. Culture change requires people to change their behaviors. It often is difficult for people to unlearn their old ways of doing things and to start performing the new behaviors consistently. Persistence, discipline, employee involvement, kindness and understanding, organization development work, and training can assist you to change a culture.

8. Diversity

9. Your work culture often is interpreted differently by diverse employees. Other events in people's lives affect how they act and interact at work too. Although an organization has a common culture, each person may see that culture from a different perspective. Additionally, your employees' individual work experiences, departments, and teams may view the culture differently.

10. You can mitigate the natural tendency of employees to optimize the components of the culture that serve their needs by teaching the culture you desire. Frequent reinforcement of the desired culture communicates the aspects of your work environment you most want to see repeated and rewarded. If you practice this reinforcement regularly, employees can more easily support the culture you wish to reinforce.

11. Strength or Weakness

12. Your culture may be strong or weak. When your work culture is strong, most people in the group agree on the culture. When your work culture is weak, people do not agree on the culture. Sometimes a weak organizational culture is the result of many subcultures or the shared values, assumptions, and behaviors of a subset of the organization.

13. For example, the culture of your company as a whole might be weak and very difficult to characterize because there are so many subcultures. Each department, work cell, or team may have its own culture. Within departments, the staff and managers may each have their own culture.

14. Positivity and Production

15. Ideally, organizational culture supports a positive and productive environment. Happy employees are not necessarily productive employees, and productive employees are not necessarily happy employees. It is important to find aspects of the culture that will support each of these qualities for your employees.

SOURCE : The BALANCED CAREERS



GLOBAL 2021 OIL AND GAS FINDS TO HIT ROCK-BOTTOM IN DECADES

The coronavirus pandemic has caused unprecedented challenges across all industries in one way or another. For the oil and gas sector, the coronavirus outbreak led to a slowdown in mobility, causing a significant drop in the global oil demand.

Although the energy system operated well this year, global oil and gas discoveries in 2021 are expected to hit the lowest level in 75 years if no significant discoveries are unearthed during the next few days. Of what was unearthed this year, energy companies like Exxon Mobil Corporation XOM, Hess Corporation HES and Sinopec SNP were the prominent names.

ExxonMobil and Hess discovered hydrocarbons at Pinktail in the Stabroek Block, located offshore Guyana. The Pinktail well found 220 feet of net pay at 3.7 miles southeast of Yellowtail-1, which is moving rapidly toward the final investment decision.

Pinktail marks the 20th significant discovery in the Stabroek Block. With the latest discovery, ExxonMobil and Hess have added to their previously estimated 9 billion barrels of oil equivalent of recoverable resource in the block. Both companies also announced the successful appraisal of the Turbot discovery.

In August, Sinopec, currently carrying a Zacks Rank #3 (Hold), discovered an oil and gas field in China's Xinjiang province. The field is located in the Shunbei area of the famous Tarim Basin. Sinopec is expected to have discovered more than 100 million tons of hydrocarbons in the field.

A significant portion of China's electricity is generated by coal-fired power plants, which emit greenhouse gases, leading to pollution. To solve the problem, China has rapidly increased natural gas use. Therefore, the Tarim Basin resources are important for Sinopec's natural gas business as it has immense potential for growth over the coming years.

While some high-ranked prospects are expected to be drilled by 2021-end, even a sizable discovery might be insufficient to contribute toward discovered volumes for 2021, as those wells may not be completed this year. As a result, the aggregate discovered volume for 2021 is approaching to hit its lowest level in decades.

As of November-end, total global discovered volumes were 4.7 billion barrels of oil equivalent (boe). With no major finds announced in December, the oil and gas sector is on course for its worst discovery record since 1946. This would indicate a significant decline from the 12.5 billion boe discovered in 2020.

Per a Norwegian energy intelligence firm, liquids dominate the hydrocarbon mix, constituting 66% of the total discoveries. In November 2021, seven discoveries were made, with about 219 million boe of volumes. Hence, the monthly average of discovered volumes now stands at 424 million boe this year. A reduction in cumulative volume represents the lack of large individual discoveries than in the previous years.

Amid clean energy transitions, underinvestment in the hydrocarbon sector and changing government regulations are expected to have resulted in lower discoveries. Notably, the total investment in the exploration and production of oil and gas declined 23% below the pre-coronavirus levels to \$341 billion in 2021, even as oil demand continued to rise globally.

In this context, some experts have sounded the alarm of an impending deficit. Though the worldwide oil demand is expected to plateau by the mid-2030s, the commodity will likely remain major part of the international energy mix until 2045, as the global population will likely increase.

According to OPEC estimates, demand is expected to increase to 108.2 million barrels per day (bpd) in 2045 from 90.6 million bpd in 2020. In other words, if the trend of low discovery levels continues, supply might eventually fall short of demand. This, in turn, could drive prices sky-high.

Urbashi Dutta, YAHOO Finance

BENEFITS OF GOOD VOCABULARY!

I recently called an old Engineering buddy of mine and asked what he was working on these days.

He replied that he was working on "Aqua-thermal treatment of ceramics, aluminum and steel under a constrained environment."

I was impressed until, upon further inquiry, I learned that he was washing dishes with hot water under his wife's supervision.



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