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Legislative Announcements

Federal Agencies Hold Listening Session Call with Utilities on Vegetation Management; Senate Panel Considers Bill to Curb State Authority to Use CWA to Block Projects; Senate ENR Holds Hearing to Consider DOE Nominees; Leaked Draft Signals Rewritten Clean Power Plan Will Be Less Stringent; and Senate Commerce Committee Conducts FCC Oversight Hearing.

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Public Power Industry Announcements

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Associate Member Announcements

EES Hires Kyle Morrill; and Novinium Presents Environmental Stewardship Award to Manitoba Hydro.

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Upcoming Educational Opportunities

Check out NWPPA's class offerings in the *eCatalog of Events*. Click on the button below.

Don't miss these upcoming training events:

- [Cybersecurity Governance, Risk, and Compliance Workshop](#)
Sept. 6, 2018 in Portland, OR
- [Supply Chain Workshop](#)
Sept. 11-12, 2018 in Spokane, WA
- [Northwest Communications & Energy Innovations Conference](#)
Sept. 16-19, 2018 in Coeur d'Alene, ID
- [Secrets of Social Media: Clues for Connecting with Electric Utility Customers](#)
Sept. 19, 2018 in Coeur d'Alene, ID
- [Accounting & Finance Fundamentals for Utility Personnel](#)
Sept. 20-21, 2018 in Boise, ID
- [Hardening Windows Networks](#)
Sept. 25-28, 2018 in Vancouver, WA
- [Leadership Skills #3: Understanding Temperament as an Effective Situational Leader](#)
September 26-27, 2018 in Hermiston, OR
- [Foreman Leadership Accelerated Program Part 1](#)
Oct. 2-4, 2018 in Portland, OR
- [Labor and Employee Relations Group Annual Meeting](#)
October 10-12, 2018 in Seattle, WA
- [Senior Leadership Skills Series Session 4: Lead Your Organization](#)

Oct. 16-17, 2018 in Whitefish, MT

- [3 Cs Conference: Customer Service, Credit, and Collections](#)

Oct. 24-26, 2018 in Vancouver, WA

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Join NWPPA's 2019 E&O Planning Committee!

Do you want to be an integral part of NWPPA's largest annual event? If so, we would love to chat with you about what committee participation entails. Send an email to dale@nwppa.org for more details.

We're looking for subject matter experts in the following categories:

1. Engineering
2. Power Supply
3. Substation & Distribution
4. Integration & Automation

Industry Calendar of Events

A list of upcoming industry events and meetings.

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RFP's and RFQ's

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contacts that supply goods and services to the utility industry and might be interested in responding to your utility RFP/RFQ. To post your RFP/RFQ, visit our [RFP/RFQ page](#). For more information, contact Debbie at debbie@nwppa.org or Mark at mark@nwppa.org.

Associate Members: Make sure to check out NWPPA's RFP/RFQ Web page to view utility RFP listings. Listings are posted as they are received by NWPPA.

New RFP posted August 10, 2018!

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Recent Industry Jobs

View the job opportunities posted to NWPPA's website in the past week.

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On This Day in History

First Around-The-World Telegram Sent, 66 Years before Voyager II Launch; Professional Football Is Born; Viking 1 Launched to Mars; and Record-Setting Tow-Truck Parade Held in Washington State.

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Federal Agencies Hold Listening Session Call with Utilities on Vegetation Management

Update provided by Meguire Whitney

On August 14, the U.S. Forest Service and the Bureau of Land Management held a listening session via conference call with electric utility stakeholders across the country to discuss the implementation of vegetation management (VM) policy updates that were signed into law as part of the 2018 omnibus appropriations package. NWPPA has been a strong advocate of commonsense updates to VM policies to help protect critical electrical infrastructure and prevent wildfires. The omnibus legislation passed in March directed USFS and BLM to coordinate with industry stakeholders to develop a streamlined regulatory framework that allows utilities to more quickly and efficiently address VM risks within or immediately adjacent to rights of way.

Among a variety of subjects discussed on the call, utility stakeholders advocated for more clear timelines on VM decisions to make planning and maintenance easier. Participants urged the agencies to address the lack of consistency between various local forest and land management offices as to which VM activities require a permit and which do not. They also encouraged better coordination among all other federal agencies who might have a role in approving VM activities along a right of way such as the National Park Service. BLM has developed initial guidance to help state and local offices establish “sound integrated vegetation management practices” that reflect the updates included in the omnibus legislation.

Although the Forest Service said it doesn’t plan to issue any formal interim guidelines for use before the final guidance is rolled out in the next 18 months, the agency indicated it will work with utilities on a case-by-case basis to try and accommodate a more streamlined approval process in accordance with the new statute. NWPPA will monitor the efforts of the land management agencies and keep members apprised of activity on this issue.

Senate Panel Considers Bill to Curb State Authority to Use CWA to Block Projects

Update provided by Meguire Whitney

The Senate Environment and Public Works Committee held a hearing on August 16 to review Chairman John Barrasso’s (R-Wyo.) bill, S.3303, the Water Quality Certification Improvement Act. The bill would limit states’ ability to block projects that do not meet state-level water quality standards, which is broadly defined under Section 401 of the Clean Water Act. Some states have used this authority to block controversial projects by withholding certification for reasons not directly related to water quality issues. For example, Washington state denied a 401 permit for the Millennium Bulk

Terminal, a massive coal export project that would feed American coal to Asian markets. The state's environmental agency based its rejection on concerns regarding air and noise pollution as well as vehicle, vessel, and rail safety – not water quality issues. New York and New Jersey have also used Section 401 to thwart pipeline projects over environmental concerns outside of water quality.

Chairman Barrasso's bill would maintain state certification authority but would strictly limit it to consideration of clearly defined and quantifiable water quality criteria, and no other factors. Critics of S.3303 call it a federal power grab in the interest of big coal. Even some natural allies of Sen. Barrasso's broader environmental agenda, such as the Western Governors Association, have been cool to the prospect of limiting state regulatory authority. The packed legislative schedule in the Senate for the remainder of the year presents another significant obstacle to moving the bill forward before the end of the 115th Congress.

Senate ENR Holds Hearing to Consider DOE Nominees

Update provided by Meguire Whitney

On August 16, the Senate Energy and Natural Resources Committee held a hearing to consider nominees for the Department of Energy, including Lane Genatowski to be director of the Advanced Research Projects Agency-Energy. Chairman Lisa Murkowski (R-Alaska) noted the importance of maintaining funding for ARPA-E despite an earlier proposal by the Trump administration to zero out the program. In response, Genatowski stated that although he agrees with the administration's proposal, if confirmed as director of ARPA-E he would be a strong advocate for more robust funding levels. Sen. Angus King (D-Maine) later questioned if the committee should confirm Genatowski to oversee ARPA-E due to his response in support of the proposal to dismantle it. Genatowski reiterated his support of the president's budget as well as wanting to run ARPA-E while supporting its mission. "If Congress appropriates money to run ARPA-E, I would hold both concepts without being inconsistent," he argued.

The committee also heard from the agency's general counsel nominee, William Cooper. Several senators probed Cooper regarding his position related to the DOE's leaked memo (see below) proposing to aid at-risk coal and nuclear plants. Cooper noted that because he is not currently a DOE employee he has only seen what is in the press about the proposal and therefore could not comment on the issue. However, he insisted he would work to ensure that the agency operated within the bounds of the law, if confirmed.

Leaked Draft Signals Rewritten Clean Power Plan Will Be Less Stringent

Update provided by Meguire Whitney

On August 15, Politico reported on a leaked draft of the rewritten Clean Power Plan, which is expected to become publicly available in a matter of days. According to reports, the new rule would focus on inside-the-fence-line measures at coal plants and allow states to write their own rules or opt out. State plans could take effect before 2025 and are estimated to have a negligible effect on electricity prices. The new rule uses new calculations of costs and benefits, which is likely to be a continued source of controversy.

Senate Commerce Committee Conducts FCC Oversight Hearing

Update provided by Meguire Whitney

Four of the five commissioners of the Federal Communications Commission appeared before the Senate Commerce Committee on August 16 to discuss the current direction of the agency. The hearing touched on many issues, including net neutrality and the expansion of high-speed internet access to rural communities. The STREAMLINE Small Cell Deployment Act (S. 3157), which seeks to assert federal regulations on pole attachments in the public right of way, was not the focus of the hearing, but Chairman John Thune (R-S.D.) referenced the bill in his opening statement. "A number of states have adopted legislation to streamline the deployment of small wireless facilities, but the inherently borderless nature of broadband internet access warrants discussion of a national framework," he said. "The bipartisan STREAMLINE Act that I introduced in June with Senator [Brian] Schatz (D-Hawaii) is meant to stimulate this discussion." He went on to say the committee would seek to balance "accelerating broadband deployment" with "preserving local authority" as it continues to consider this legislation. A hearing on S. 3157 is expected in September.

As noted in prior eBulletins, NWPPA sent Chairman Thune and Commerce Committee Ranking Democrat Bill Nelson (D-Fla.) a letter opposing S. 3157 as written. NWPPA will continue to monitor this issue as it heads to a hearing next month.

Alameda's Public Utilities Board Gains New Member

Retired cabinet maker, finish-carpentry contractor, and 30-year Alameda resident Jeffrey Gould was recently approved by the Alameda City Council as the newest member of the city of Alameda's Public Utilities Board (Calif.). Gould replaces former board member Madeline Deaton, who recently retired from the position.

Gould has extensive experience in the building trades and more than 40 years of experience as a licensed specialty contractor. He also holds a bachelor's degree from Southern Illinois University. He is a lifelong advocate for clean energy issues and an active member of the local non-profit environmental organization Community Action for a Sustainable Alameda.

Fall River Electric Selects New Board Member

Fall River Electric's Board of Directors (Ashton, Idaho) has selected Jeff Keay of Island Park to fill the remaining two years of board member Ralph Burton's term, which expires in June 2020. Burton moved from the area which, according to the co-op's bylaws, forces a vacancy which the board is required to fill via appointment. A nominating committee, comprised of owner-members of the cooperative, provided the board with four highly qualified candidates which were then interviewed by the full board. Keay lives in District 8 which comprises members residing in northern Island Park.

Keay is the retired deputy regional director of the U.S. Geological Society where he guided 13 scientific research centers with 1,500 employees in five western states. He holds a Ph.D. in wildlife resources from the University of Idaho. Keay has extensive experience in budgeting, ethical, and safety issues, as well as policy development and implementation.

"Jeff's experience and background will provide a new and exciting dimension to our board," said Fall River Electric CEO/General Manager Bryan Case. "We look forward to his future contributions."

Ralph Burton served seven years on the Fall River Electric board and most recently was board vice president and chairman of the Ad Hoc Policy Committee.

"Ralph has been a valued board member who has been one to ask great questions and made well thought-out comments and insights," said Case. "His business acumen and previous cooperative experience has been extremely valuable in board discussions and decisions. We were sad to have him move from our service territory."

The Fall River Electric Board of Directors consists of nine members residing in all areas of the co-op's service territory. Each board member is elected to a three-year term by all the owner-members of the cooperative.

Douglas PUD Honors Two Employees



(L-R) Commissioner Viebrock, Commissioner Skagen, Susan Martin, Commissioner Simpson, and Mary Mayo.

During the August 13 Douglas County PUD (East Wenatchee, Wash.) Commission meeting, commissioners Ronald E Skagen, Molly Simpson, and Aaron J. Viebrock presented service awards to two long-time employees.

Upon receiving her 20-year service award, Software Analyst Susan Martin thanked the Commission and recapped the various software products she has implemented at the District. "I enjoy working in the Information Systems department," said Martin. "You get to work with people from all over the District."

Administrative Assistant – Relicensing Mary Mayo received her 25-year service award and talked about the different positions she has held over the years. "I love our department," she said. "They are great people to work with."

Mason PUD 3's Fiberhoods and the Broadband for All Act (H.R.6442)

On August 14, the Mason PUD 3 (Shelton, Wash.) Commission voted to support a bipartisan broadband bill introduced by U.S. Representatives Derek Kilmer (D-Wash.) and Elise Stefanik (R-N.Y.). Commissioners adopted Resolution 1714, "A resolution in support of H.R. 6442, the Broadband for All Act."

The "Broadband for All Act" would allow tax credits for citizens who participate in neighborhood groups and pay the shared cost of extending broadband to their communities.

There are literally thousands of Mason County residents that have asked PUD 3 how it can help bring high-speed broadband to unserved or underserved areas of Mason County. The PUD Fiberhood program is one answer to this dilemma.

"This 'Broadband for All Act' is a perfect fit for PUD 3's Fiberhood program," said Justin Holzgrove, telecommunications and community relations manager. "For those in the PUD's designated Fiberhood areas, this will help them cover a good share of the individual cost of extending service to designated unserved or underserved areas of Mason County. In addition, we're pleased to have adopted a low-income discount program today that, in partnership with our internet service providers, will mean added opportunities for high-speed internet access."

To pay for the extension of gigabit broadband service to communities and homes, Fiberhood participants pay a \$25 "construction adder" each month for 12 years. It shows up on the bill from the customer's internet service provider.

The bill (H.R.6442) would make Fiberhood customers eligible for a 75-percent tax credit on their “construction adder” charges, greatly cutting the cost to hook up.

“We’re asking our customers and community leaders to lend their support to the ‘Broadband for All Act,” said Holzgrove. “It will help bring much needed high-speed broadband services to rural areas throughout the country.”

[Click here to read the full release and resolution.](#)

OTEC’s Hughes Lane Substation Getting Upgrades



Crews from OTEC will be upgrading the Hughes Lane Substation in Baker City.

Crews from Oregon Trail Electric Cooperative (Baker City, Ore.) will soon begin upgrades to the Hughes Lane Substation that cooperative leaders hope will have a direct impact on encouraging economic development in Baker County.

Once completed, the upgrades will double the electrical capacity in the area and will provide additional capacity to accommodate growth of existing businesses and help attract new businesses in the Baker Industrial Park along Settlers Loop and 17th Street.

“In the past, when a prospective industrial customer asked for cost of service for one megawatt or more, it was very expensive because our system was at its capacity and we had to include the cost of upgrading expensive system infrastructure. We will now be able to handle new growth up to 10 megawatts of load in the industrial park area at a much lower price tag, which should help attract industry to the area,” said Kelly Jobses, an OTEC system engineer.

Located on 17th Street near Hughes Lane, the substation upgrade includes a new transformer that will increase the substation’s capacity by 10 megawatts. For reference, Jobses said that a typical grocery store or industrial customer in Baker County uses around a half megawatt, where the lumber mills in Baker and Union county use between two and eight megawatts of power each, depending on size. “We continuously monitor our electric distribution system to ensure that we are able to meet the power needs of our members and plan for future growth,” said OTEC General Manager and Chief Executive Officer Les Penning. “Installing a new transformer and doubling the load capacity at the Hughes Lane Substation will ensure that we continue to provide reliable power to our current and future members.”

The capital budget project is expected to cost approximately \$500,000 when it is completed. Work on the substation will start today, August 20, and is expected to be completed by August 31. Jobses said there should be no interruption of power due to the upgrade work.

“Upgrading the Hughes Lane Substation transformer was already scheduled on our work plan to be replaced in a few years due to age, but it was moved up toward the end of 2017 as a strategic priority after receiving feedback from many of our community leaders,” said Penning.

[Click here to read the full release.](#)

Benton PUD Responds to Fire Damage

Benton PUD crews worked through the afternoon and late into the evening on Saturday, August 11, to repair damage caused by the Bofer Canyon fire that burned over 5,000 acres in Kennewick, Wash., and surrounding areas. Due to the hot and dry weather conditions combined with 15-mph winds, with wind gusts up to 20-25 mph, the fire spread within minutes. Five homes and several other structures were completely lost.

There were 361 Benton PUD customers out of power for about three hours. Benton PUD lost 23 poles, five transformers, and other equipment in the fire. Crews continued to work on Sunday and through the week on the damages.

During a news conference held on Sunday after the fire, Kennewick Police Chief Ken Hohenberg told the media that he wanted to publicly thank Benton PUD. He said, "We had the PUD working with us. We knew we had a fairly large outage in Canyon Lakes. It was hot outside and we have elderly in this area, we have babies in that neighborhood, we have the whole gambit there. The PUD did a great job working diligently to get the power restored in a very timely manner. I just want to say publicly – thank you. You guys are a great partner."

Fire Chief Beasley also thanked Benton PUD.

The fire is now 100% contained. The cause is still under investigation.

Mason County PUD 3 Uses Innovation for Strategic Deployment – Community Broadband Bits Podcast 316

Update provided by Community Networks (07/31/2018)

When we spoke with Justin Holzgrove, Mason PUD 3 Telecommunications & Community Relations Manager, back in October 2017, we discussed how the public utility district in Washington was about to embark on expanding its services. This week, Justin is back and he's joined by Isak Finer, who works as Chief Marketing Officer for COS Systems. The company is helping Mason PUD 3 develop strategic deployment plan with COS Service Zones, their demand aggregation tool.

In this interview, we learn about the decision to expand the use of the fiber infrastructure from electric utility support purposes to residential and business connectivity. As Justin describes, the county is filled with many small, rural communities. Traditional, large ISPs don't typically find much motivation to serve these low density areas. Large numbers of electric customers let PUD officials know that they needed better Internet access and they wanted Mason County PUD 3 to supply the infrastructure.

In order to determine the best way to implement their build out, the PUD engaged COS Systems, a firm with a decade of experience in deployment planning, especially in large, rural areas. Isak gives us background on the company and their software that helps communities, such as Mason County PUD 3, take a thoughtful approach toward deployment to maximize opportunities and move toward success.

Christopher, Isak, and Justin also consider the meaning of "open access" and how that meaning changes depending on location. As technology improves, innovators find new ways to use open

Associate Member Announcements

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EES Hires Kyle Morrill

EES Consulting's newest senior analyst, Kyle Morrill, brings analytical expertise to EES in support of economic and financial studies. He is skilled in data management, analysis, and research methodologies.

Prior to joining EES, Morrill worked on economic studies for the University of Montana and investigated a variety of topics, including policy proposals, economic impact analysis, demographics, and survey research. In this role, he directed the Bureau of Business and Economic Research's economic growth forecast and acted as the Montana representative to the U.S. Census Bureau's Federal-State Cooperative for Population Estimates.

Morrill has also worked as an analyst for the Energy Trust of Oregon where he forecasted energy savings and incentive spending for the industry and agriculture sector's efficiency program. He has analytical experience with the Portland, Ore., metropolitan governing body working on municipal solid waste policy, management, and systems modeling.

He earned a double major in economics and philosophy from the University of Puget Sound and an M.A. in economics from the University of Colorado Denver.

EES is a multidisciplinary professional engineering and management consulting firm that provides a broad array of services to clients. For more information, visit www.eesconsulting.com.

Novinium Presents Environmental Stewardship Award to Manitoba Hydro



(L-R) Manitoba Hydro Director of Engineering & Construction Chuck Steele accepts the award on the utility's behalf from Novinium's Dean Stone.

Novinium, provider of electrical cable rejuvenation for power utilities, presented an Environmental Stewardship award to Manitoba Hydro for their efforts in finding innovative ways to deliver electricity to millions of customers while also minimizing the impact on the environment.

Novinium established an Environmental Stewardship Award to honor the environmental commitment of electrical utilities that choose rejuvenation of their electrical cables when upgrading their underground power networks.

Manitoba Hydro is receiving the award based on the number of feet of electrical cable they rejuvenated and the resulting CO₂ mitigation. Rejuvenating existing electrical cable allows the cable to be recycled in place, eliminating waste created by

otherwise abandoning and replacing the cables. In 2017, Manitoba Hydro rejuvenated more than 81,000 meters of underground power cables mitigating 865 metric tons of CO₂ that would have otherwise been released into the environment.

“Our mission at Novinium is to help the electrical industry rehabilitate its infrastructure at a fraction of the capital cost of replacement and to do so in a way that is safer and more environmentally friendly than replacement alternatives,” said Glen Bertini, CEO of Novinium. “This award recognizes the commitment by electrical utilities that implement solutions that are good for the planet and their clients.”

Manitoba Hydro is one of 10 utilities across the United States and Canada that were presented with the award based on the number of feet of electrical cable injected in 2017.

Novinium is the only full-service power cable expert that partners with utility companies of all sizes to keep their networks operating at peak performance, using the most advanced, capital-efficient, environmentally friendly methods available. To learn more about the specific injection projects at each of the winning utilities, visit www.novinium.com.

Calendar of Events

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2018 Upcoming Industry Meetings

Send your 2018 meeting dates and locations to Debbie at Debbie@nwppa.org.

August 2018

22-23 – Electrical Utilities Safety Summit, Richland, WA. [Click here to view details](#)

September 2018

6 – PPC Meeting, Sheraton Portland Airport, Portland, OR, 8 a.m. to noon

12-14 – NWPPA Board of Trustees Meetings, Marcus Whitman Hotel & Conf. Center, Walla Walla, WA

25-27 – NRECA Region 7 & 9 Meeting, Anchorage, AK

October 2018

1-4 – MECA Annual Meeting, Great Falls, MT

4 – PPC Meeting, Sheraton Portland Airport, Portland, OR, 8 a.m. to noon

10-11 – GridFWD 2018, Pinnacle Harbourfront Hotel, Vancouver, BC. Visit: www.GridFWD.com.

11-12 – OMEU Meeting, Salishan Lodge, Gleneden Beach, OR

November 2018

2 – PNUCC, Sheraton Portland Airport, Portland, OR.

December 2018

13 – PPC Annual Meeting & Lunch, Sheraton Portland Airport, Portland, OR – 8:30 a.m. to 1:30 p.m.

13 – OMEU Meeting (following PPC annual meeting), Sheraton Portland Airport, Portland, OR

Recent job openings within the industry in the last week:

Asset Management Lead – City of Tacoma

Distribution Engineering Supervisor – Central Lincoln

Electrical Engineer / Substation Project Manager – TriAxis, a Division of David Evans and Associates

Electrical Line Worker/12-kV Electrical Line Worker – City of Lompoc

Engineer II, Electrical (R18-493) – Portland General Electric

General Accounting Supervisor – Kittitas County PUD

Journeyman Lineman – Benton Rural Electric Association

Journeyman Meterman – Chelan County PUD

Meter Services and Field Operations Supervisor R18-305 – Portland General Electric

Senior Engineer – Umatilla Electric Cooperative

Specialist II/III – Field Lighting (R18-471) – Portland General Electric

Spec. II/III SDPM (R18-475) – Portland General Electric

Spec. III, SDPM (R18-483) – Portland General Electric

Spec. III, SDPM (R18-484) – Portland General Electric

Substation Electrical Engineer-in-Training – TriAxis, a Division of David Evans and Associates

Telecommunications Engineer – Modesto Irrigation District

Warehouse Materials Handler – Missoula Electric Cooperative

First Around-The-World Telegram Sent, 66 Years before Voyager II Launch

August 20, 1911

On this day in 1911, a dispatcher in the *New York Times* office sends the first telegram around the world via commercial service. Exactly 66 years later, the National Aeronautics and Space Administration (NASA) sends a different kind of message—a phonograph record containing information about Earth for extraterrestrial beings—shooting into space aboard the unmanned spacecraft *Voyager II*.

The *Times* decided to send its 1911 telegram in order to determine how fast a commercial message could be sent around the world by telegraph cable. The message, reading simply “This message sent around the world,” left the dispatch room on the 17th floor of the *Times* building in New York at 7 p.m. on August 20. After it traveled more than 28,000 miles, being relayed by 16 different operators, through San Francisco, the Philippines, Hong Kong, Saigon, Singapore, Bombay, Malta, Lisbon and the Azores—among other locations—the reply was received by the same operator 16.5 minutes later. It was the fastest time achieved by a commercial cablegram since the opening of the Pacific cable in 1900 by the Commercial Cable Company.

On August 20, 1977, a NASA rocket launched *Voyager II*, an unmanned 1,820-pound spacecraft, from Cape Canaveral, Florida. It was the first of two such crafts to be launched that year on a “Grand Tour” of the outer planets, organized to coincide with a rare alignment of Jupiter, Saturn, Uranus and Neptune. Aboard *Voyager II* was a 12-inch copper phonograph record called “Sounds of Earth.” Intended as a kind of introductory time capsule, the record included greetings in 60 languages and scientific information about Earth and the human race, along with classical, jazz and rock ‘n’ roll music, nature sounds like thunder and surf, and recorded messages from President Jimmy Carter and other world leaders.

The brainchild of astronomer Carl Sagan, the record was sent with *Voyager II* and its twin craft, *Voyager I*—launched just two weeks later—in the faint hope that it might one day be discovered by extraterrestrial creatures. The record was sealed in an aluminum jacket that would keep it intact for 1 billion years, along with instructions on how to play the record, with a cartridge and needle provided.

More importantly, the two *Voyager* crafts were designed to explore the outer solar system and send information and photographs of the distant planets to Earth. Over the next 12 years, the mission proved a smashing success. After both crafts flew by Jupiter and Saturn, *Voyager I* went flying off towards the solar system’s edge while *Voyager II* visited Uranus, Neptune and finally Pluto in 1990 before sailing off to join its twin in the outer solar system.

Thanks to the Voyager program, NASA scientists gained a wealth of information about the outer planets, including close-up photographs of Saturn’s seven rings; evidence of active geysers and

volcanoes exploding on some of the four planets' 22 moons; winds of more than 1,500 mph on Neptune; and measurements of the magnetic fields on Uranus and Neptune. The two crafts are expected to continue sending data until 2020, or until their plutonium-based power sources run out. After that, they will continue to sail on through the galaxy for millions of years to come, barring some unexpected collision.

Professional Football Is Born

August 20, 1920

On this day in 1920, seven men, including legendary all-around athlete and football star Jim Thorpe, meet to organize a professional football league at the Jordan and Hupmobile Auto Showroom in Canton, Ohio. The meeting led to the creation of the American Professional Football Conference (APFC), the forerunner to the hugely successful National Football League.

Professional football developed in the 1890s in Pennsylvania, as local athletic clubs engaged in increasingly intense competition. Former Yale football star William "Pudge" Heffelfinger became the first-ever professional football player when he was hired by the Allegheny Athletic Association to play in a game against their rival the Pittsburgh Athletic Club in November 1892. By 1896, the Allegheny Athletic Association was made up entirely of paid players, making it the sport's first-ever professional team. As football became more and more popular, local semi-pro and pro teams were organized across the country.

Professional football first proved itself a viable spectator sport in the 1910s with the establishment of The Ohio League. Canton, the premiere team in the league, featured legendary decathlete and football star Jim Thorpe. From his play with the Carlisle School to his gold medal in the decathlon in Stockholm in 1912 and his time in the outfield with John McGraw's New York Giants, Thorpe was an international star who brought legitimacy to professional football. The crowds that Thorpe and the Canton team drew created a market for professional football in Ohio and beyond. Still, the league was struggling due to escalating player salaries, a reliance on college players who then had to forfeit their college eligibility and a general lack of organization.

On August 20, 1920, the owners of four Ohio League teams—the Akron Pros, Canton Bulldogs, Cleveland Indians and Dayton Triangles—met to form a new professional league. Jim Thorpe was nominated as president of the new league, as it was hoped Thorpe's fame would help the league to be taken seriously. On September 17, the league met again, changing its short-lived name to the American Professional Football Association (APFA) and officially electing Jim Thorpe as the league's first president.

The APFA began play on September 26, with the Rock Island Independents of Illinois defeating a team from outside the league, the St. Paul Ideals, 48-0. A week later, Dayton beat Columbus 14-0 in the first game between two teams from the APFA, the forerunner of the modern NFL.

Viking 1 Launched to Mars

August 20, 1975

Viking 1, an unmanned U.S. planetary probe, is launched from Cape Canaveral, Florida, on a mission to Mars.

On June 19, 1976, the spacecraft entered into orbit around Mars and devoted the next month to imaging the Martian surface with the purpose of finding an appropriate landing site for its lander. On July 20—the seventh anniversary of the *Apollo 11* lunar landing—the *Viking 1* lander separated from the orbiter and touched down on the Chryse Planitia region, becoming the first spacecraft to successfully land on the surface of Mars. The same day, the craft sent back the first close-up photographs of the rust-colored Martian surface.

In September 1976, *Viking 2*—launched only three weeks after *Viking 1*—entered into orbit around Mars, where it assisted *Viking 1* in imaging the surface and also sent down a lander. During the dual *Viking* missions, the two orbiters imaged the entire surface of Mars at a resolution of 150 to 300 meters, and the two landers sent back more than 1,400 images of the planet's surface.

Record-Setting Tow-Truck Parade Held in Washington State

August 20, 2004

On August 20, 2004, 83 tow trucks roll through the streets of Wenatchee, Wash., in an event arranged by the Washington Tow Truck Association (WTTA). "The Guinness Book of World Records" dubbed it the world's largest parade of tow trucks.

According to the International Towing and Recovery Hall of Fame and Museum in Chattanooga, Tennessee, the first tow truck was the invention of a Chattanooga native named Ernest Holmes, who helped his friend retrieve his Model T Ford after the car slid into a creek. Holmes had previously assembled a system consisting of three poles, a pulley and a chain, all connected to the frame of a 1913 Cadillac. Holmes soon patented his invention, and began manufacturing the equipment to sell to garages and other interested customers out of a small shop on Chattanooga's Market Street. The Holmes brand went on to earn an international reputation for quality in the towing industry.

On September 20, 2008, the Metropolitan New York Towing Association threw its own hat into the ring. Two hundred and ninety-two tow trucks, including flatbeds, wreckers and 50-ton rotators, left Shea Stadium in Queens (previously the home of the New York Mets, the baseball park has since been demolished to make way for the Mets' new Citi Field) and traveled along the Van Wyck Expressway and the Belt Parkway before ending up at an abandoned airport tarmac at Floyd Bennett Field in Brooklyn. There, the trucks parked in a formation that spelled out the words "New York."