

**2016 State Damage Prevention Program Grants Progress Report**  
**Funding Opportunity Number: DTPH56-16-SN-000001**  
**CFDA Number: 20.720**

**Award Number:** DTPH56-16-GSDP16\$91,750.00  
**Effective Date:** September 01, 2016 to August 31, 2017  
**Project Title:** Utility Notification Center of Colorado State Damage Prevention  
**Date Submitted:** Jan 12, 2018  
**Submitted by:** J.D. Maniscalco  
Executive Director, Utility Notification Center of Colorado (Colorado 811)

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**Specific Objective(s) of the Agreement**

*[Cut and paste from Article II, Section 2.03 of your agreement.]*

**Section 2.03 Specific Objective(s) of the Agreement**

*Under this grant agreement, UNCC will improve its damage prevention efforts through implementation of the following four objectives and accompanying initiatives:*

- 1) Foster support and partnership with stakeholders (supports Element-2)
  - 1a) Support the DPAT Fall 2-day damage prevention stakeholder coordination event
- 2) Support Operator Internal Performance Measurement (supports Element-3)
  - 2a) Work with CoPUC and gas distribution and pipeline operators to assess measures of Locate Performance, identify common issues, and write a report aimed at understanding and improving Locate Practices in Colorado.
- 3) Support Damage Prevention Education Program for industry stakeholders (supports Element-4)
  - 3a) Contract vendor to conduct underground facility incident simulation exercise in Colorado
- 4) Support Public Awareness (supports Element-5)
  - 4a) Support Damage Prevention 811 Day in August and 811 Public Awareness

**Workscope**

*[Cut and paste from Article III. Workslope of your agreement.]*

**Article III. Workslope**

*Under the terms of this grant agreement, the Grantee will address the following elements listed in 49 USC §60134 through the actions it has specified in its Application.*

- Element 2 (Comprehensive Stakeholder Support): A process for fostering and ensuring the support and partnership of stakeholders, including excavators, operators, locators, designers, and local government in all phases of the program.
- Element 3 (Operator Internal Performance Measurement): A process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs.
- Element 4 (Effective Employee Training): Participation by operators, excavators, and other stakeholders in the development and implementation of effective employee training programs to ensure that operators, the One Call center, the enforcing agency, and the excavators have partnered to design and implement training for the employees of operators, excavators, and locators.
- Element 5 (Public Education): A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities.

Note: Each element in the Specific Objectives aligns with a respective element in the Workslope. Further reference to accomplishments and plans will reference only the Specific Objectives.

**Accomplishments for this period (Item 1 under Article IX, Section 9.01 Progress Report:**

**“A comparison of actual accomplishments to the objectives established for the period.”)**

*[How are you progressing on each of the items/elements provided in the “Specific Objectives” and “Workscope”? Start with an overall description followed by item-by-item or element-by-element detail if possible.]*

**Progress Overview**

The 2016 grant agreement was signed and approved on August 30, 2016. CO811 received the first half of the 2016 grant funding on March 23, 2017. CO811 initiated grant activities after May 01, 2017. Objectives 1, 2, and 4 are complete, while Objective 3 is still in-progress and a follow-up report will be submitted in 2018.

**CO811 undertook approved activities in 2017 for the four Objectives:** **\$Expense**

**Obj-1 (Element 2) – Stakeholder Support (Communication/Participation)** **\$ 5,000.00**

CO811, in conjunction with the stakeholder supported Damage Prevention Action Team (DPAT), sponsored the annual *3-Day Damage Prevention Safety Summit and Conference* attended by stakeholders throughout Colorado. Grant funds offset the cost of meeting rooms and the key speaker.

**STATUS: Complete**

**Obj-2 (Element 3) – Operator Performance (Internal Locate Performance)** **\$ 40,000.00**

CO811 is currently measuring operator locate performance for 2017. In past grant years, data and reports were based upon the prior year facility damage activity, which unfortunately did not provide timely and actionable information. We decided to assess current year information (2017) to create a more timely, relevant and actionable report for industry stakeholders. We anticipate that this performance report will be completed and forwarded by January 28, 2018.

**STATUS: Not Complete–In Progress**

**Obj-3) Element 4 – Effective Employee Training (Damage Response Event)** **\$ 24,546.56**

CO811, in conjunction with Paradigm Alliance, conducted a damage incident simulation exercise for natural gas/liquid pipeline operators, first responders and public officials in the Colorado Springs area. This event was delayed due to the extreme fire season in Colorado and was successfully presented in October 2017.

**STATUS: Complete**

**Obj-4) Element 5 – Public Education (811 Public Awareness Campaign)** **\$ 21,790.95**

CO811 conducted a statewide 811 public awareness campaign as well as financially supported the 811 Run event to promote public awareness in the Denver Metro area.

**STATUS: Complete**

**Total Approved Budget** **\$ 91,750.00**

**Total Funds Expended by CO811** **\$ 91,337.51**

**Total Funds Underspent and Returned to PHMSA** **\$ 412.49**

Further detail follows in the next section.

Grant Activity Detail	Approved Budget	CO811 Expended	Funds Remaining
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**Objective 1) Element 2 – Stakeholder Support (Communication/Participation)**

<i>Ameristar Resort</i> – Audio Visual		\$ 1,500.00	
<i>Safety Awareness Solutions</i> – Keynote Speaker		\$ 3,500.00	
Total	\$ 5,000.00	\$ 5,000.00	\$ 0.00

The 3-day *Fall Damage Prevention Safety Summit and Conference* was enthusiastically attended by well over 120 stakeholders representing facility owners, excavators, locators, industry groups, regulatory agencies (PHMSA, Colo PUC) and industry vendors. The event is financially supported by stakeholder registration fees, vendor booth fees, and the PHMSA Grant. The CO811 Annual Meeting was held in conjunction with the Summit on the first day. Presentations ranged from field safety topics to regulatory updates.

**Objective 2) Element 3 – Operator Performance (Internal Locate Performance)**

	Budget	Expended	Remaining
<i>Foresight Advantage</i> – Operator Interviews-Internal Process		\$ 20,000.00	
DIRT & Positive Response Data Analysis			
<i>Foresight Advantage</i> – Data Comparisons, Report writing		\$ 20,000.00	
Total	\$ 40,000.00	\$ 40,000.00	\$ 0.00

Several representative operators for natural gas and pipeline facility (private distribution, private liquid pipeline, municipal distribution) have been interviewed to identify internal locate procedures. Their 2017 operator locate performance data will be provided for further analysis in January 2018. 2017 CO811 Request Positive Response data has been collected via the CO811 Ticket Management System. 2016 locate-related CO-VPDIRT data submitted by operators has been collected. Note that 2017 DIRT data will not be available until after April 2018, so 2016 data must be used. Once all data is collected, the data can be assessed, compared, and a final report written and delivered to CO811 and PHMSA.

**Objective 3) Element 4 – Effective Employee Training (Damage Incident Tabletop Event)**

	Budget	Expended	Remaining
<i>Paradigm Alliance</i> – Rooms, Audio Visual, Conduct Event		\$ 21,846.56	
<i>Foresight Advantage</i> – DIRT Preparation and Presentation		\$ 2,700.00	
Total	\$ 26,750.00	\$ 24,546.56	<b>+\$ 2,203.44</b>

CO811 and Colorado Springs Utilities (multiple municipal facilities) hosted a damage incident response event on October 19, 2017. While several hundred stakeholders from in-and-around the Colorado Springs area were invited, the event was attended by 45 stakeholders. Paradigm facilitated the table-top simulation exercise which was held from 8:30am until 4:00pm. The simulation scenario involved a terrorist threat with a gas facility disruption near a residential and industrial area. Attendees were guided through a situational response exercise that involved the local law enforcement, local fire responders, the Public Utilities Commission-Gas Safety Division, state and local emergency management teams, the host facility management and response team, and CO811 Damage Prevention Liaisons. Prior to the exercise, presentations were made by CO811 on teamwork in damage prevention, the FBI on crimes involving terrorism, Colorado Springs Utilities on facility emergency response management, and Foresight Advantage on facility damages in Colorado from 2000 through 2016.

Grant Activity Detail	Approved Budget	CO811 Expended	Funds Remaining
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**Objective 4) Element 5 – Public Education (811 Public Awareness and Education)**

<i>Colorado Broadcasters Association – Statewide Media campaign</i>		\$ 15,000.00	
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<i>Colorado Broadcasters Association – Statewide Media campaign</i>		\$ 5,156.11	
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The statewide 811 public awareness 7-month campaign included 10,861 TV and 44,383 radio advertising spots through a media consolidator which provided nearly \$2.24 Million in media coverage for a discounted, non-profit rate of just \$90,000. The Grant provided \$20,156 funding for this public education and awareness, while CO811 provided the remaining 77.4% of the funding.

<i>AlphaGraphic Wet Ink – Posters and Flyers for 811 Run</i>		\$ 564.83	
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<i>AlphaGraphic Wet Ink – Posters and Flyers for 811 Run</i>		\$ 122.09	
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<i>AlphaGraphic Wet Ink – Posters and Flyers for 811 Run</i>		\$ 40.95	
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<i>Apex Recreation District – Facility Rental for 811 Run</i>		\$ 250.00	
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<i>Big Air Jumpers – Mobile Rock Wall for 811 Run</i>		\$ 656.97	
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Total	\$ 20,000.00	\$ 21,790.95	<b>\$(1,790.95)</b>
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CO811 organized 34 trade shows around the state, an 811 Run event, 4 golf events, a public safety 811 banner campaign, sponsored events for April Dig Safely Month and 811 Day in August, promoted 811 public awareness in several magazines and participated in 3 parades. These activities occurred in 29 different counties around the state

**Excess Grant Funding**

Grant funds in the amount of \$ 412.49 were unspent and returned to PHMSA via CO811 CHECK on 12/21/2017.

**Attachments**

Copies of the invoices are included in the PHMSA report package along with the 2016 State Damage Report and the After Action Report from the tabletop simulation event.

**Quantifiable Metrics/Measures of Effectiveness (Item 2 under Article IX, Section 9.01 Project Report: “Where the output of the project can be quantified, a computation of the cost per unit of output.”)**

*[This is difficult to explain across the board, but we’re trying to get a gauge for how effective this grant work is in improving your program. If your grant is more data oriented, you likely had some sort of metrics in mind to improve upon. If so, what were those metrics and how is the data looking now compared to when the program started? If you’re doing something along the lines of enforcement that involves incident review, how many cases have you been able to review/close and/or fines collected compared to before the grant work? If you pitched something more along the lines of public awareness, to how many stakeholders have you been able to reach? Even if you don’t have the metrics fully defined, put whatever you can here.]*

The CO811 analysis utilizes CGA DIRT damage data and CO811 Ticketing data. Our quantifiable metrics consist of reporting the State’s progress with:

- 1) The change in the number of DIRT submitted facility damage  
(for All facility types, Natural Gas Distribution, and Liquid Pipeline)
- 2) The change in the ratio of DIRT facility damages per 1,000 incoming requests  
(for All facility types)
- 3) The change in the number of counties receiving a grade ranging from B- to A+ on the Damage Prevention County Report Card (Composite damage prevention score for all facility types)

For 2016 Colorado had the following metrics:

Year	DIRT All-Facility damages	Natural Gas Distribution Facility damages	Liquid Pipeline Facility damages	DIRT Damages / 1,000 Requests Ratio All-Facility/ NatGasD		# of B- to A+ Grade On County Report Card (of 64 counties)
2015	4,773	1,273	14	6.5	1.74	24
2016	2,442	1,174	23	3.1	1.47	30
%Change	-48.8%	-7.8%	+64.3%	-52.9%	-15.5%	25.0%

There were also 796,695 Incoming Requests from excavators in 2016 and 732,861 in 2015. The 2016 facility damages were submitted to DIRT by 70 facility owners (CO811 Members) with facility damages in 54 of the 64 counties in Colorado. 50.6% of the facility damages occurred while excavators (either contractors or facility owner staff) were performing some type of utility work. A locate was requested by the excavator for 68.5% of the facility damages where the Root Cause of the damage was reported.

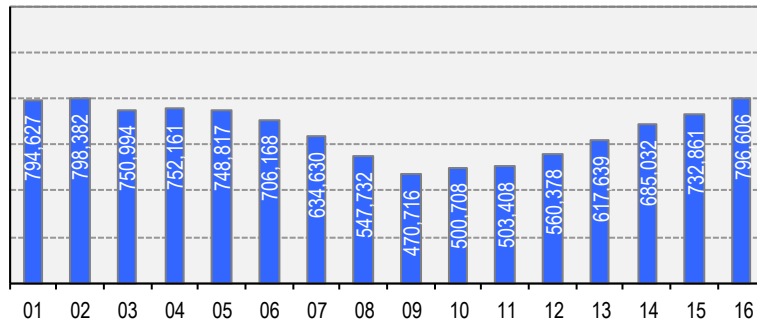
It is evident that the number of damages and the damage ratio for All-Facility damages and Natural Gas Distribution Facility damages has decreased, or improved, from 2015 to 2016. Unfortunately, Liquid Pipeline Facility damages have significantly increased from 2015 to 2016, though the number of damages is low (less than 25) compared to either the total number of facility damages (2,442) or the number of locate requests (796,695). The number of counties in 2016 with a Composite Grade ranging from B- to A+ increased 25% to 30 of 64 counties.

The large decrease (-48.8%) in All-Facility damages was due to a lack of reporting by the Cable TV industry. Due to the PHMSA and PUC regulatory framework, Natural Gas Distribution and Liquid Pipeline DIRT reporting is more consistent and higher quality than other facility types.

The charts on the next two pages show the historical trend of these metrics from 2001-2016. For all metrics except the Liquid Pipeline Facility type damages, the 16-year historical trend has improved.

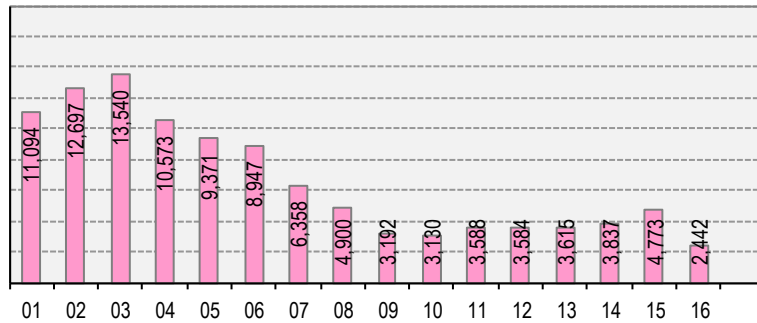
## Colorado Damage Prevention 2001-2016

Chart 1 # Incoming Notification Requests



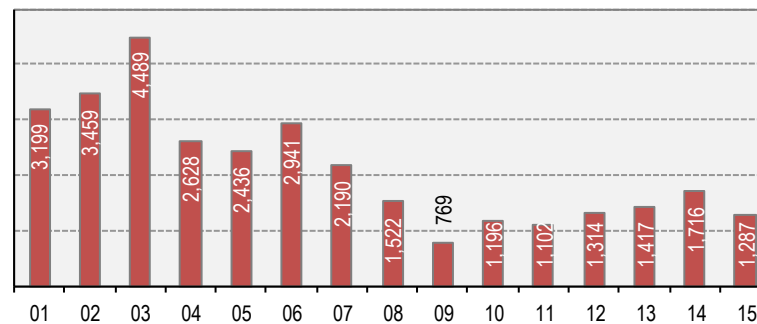
## Colorado Damage Prevention 2001-2016

Chart 3 # Facility Damages



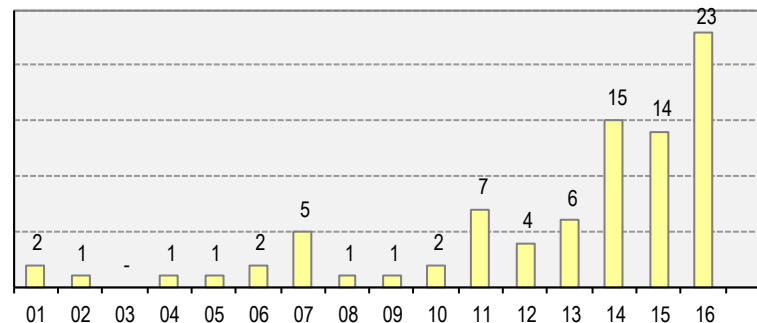
## Colorado Damage Prevention 2001-2016

Chart 19 Nat Gas Distribution+Liquid Pipeline Damages

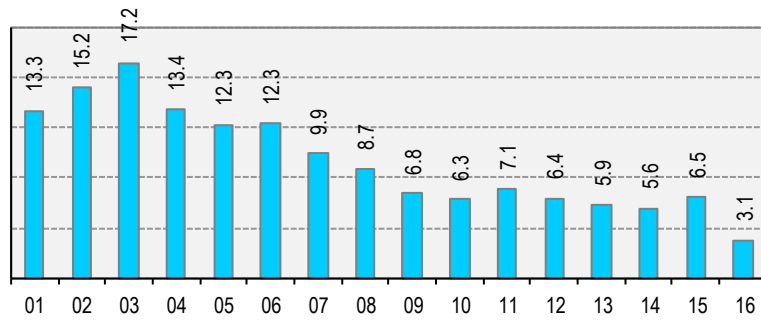


## Colorado Damage Prevention 2001-2016

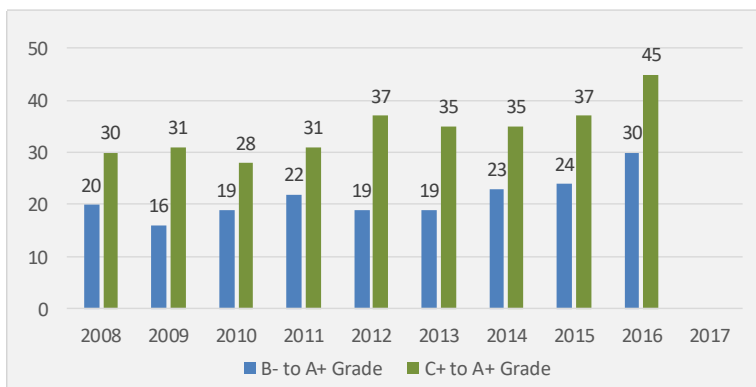
Chart 20 Liquid Pipeline Damages



**Colorado Damage Prevention 2001-2016**  
**Chart 15 Damages per 1,000 Incoming Requests**



**Colorado Damage Prevention 2001-2016**  
**County Report Card Composite Grade - #Counties in Grade Range**



**Issues, Problems or Challenges (Item 3 under Article IX, Section 9.01 Project Report: “The reasons for slippage if established objectives were not met.”)**

*[If the project is progressing on schedule, simply state that there are no issues, problems or challenge to report. If there have been delays for any reason, explain what they are and how that may impact the grant work. For instance, with some States, even after an agreement is in place, it has to be sent back to the Governor’s office for approval, which takes more time than originally anticipated. Even if work begins right away after the agreement is in place, other delays can be caused by personnel changes or simply having a better understanding of the effort required once the work is underway.]*

There are three issues to report.

First, due to an extreme fire season along the front range foothills in the summer and into the fall, CO811 had to delay Objective 3, the Damage Incident Simulation Exercise. CO811 requested on 07/26/17 and was granted permission by the AOTR to hold the event in October 2017.

Second, Objective 2, the Operator Locate Performance Study, was delayed and is still in progress while awaiting 2017 year end Operator data. The delay occurred so that CO811 could assess 2017 calendar year operator data to make the assessment current, timely and more relevant for stakeholders. In past years, we have had to utilize prior year data that has not been timely and relevant to making an impact on damage prevention. This study will be completed by February 28, 2018.

Third, the Final Report was NOT submitted on time (due no later than Nov 31, 2017) due to several pressing operational projects that required staff attention. We apologize for our poor planning and will make sure this does not happen in the future.

**Final Financial Status Report**

*[Per the instructions in Article IX, Section 9.03 of your agreement (included below), the financial status report should go to the Agreement Administrator (AA). For this section of the progress report, simply state “The Final Financial Report has been sent as a separate attachment to the AA.”. However, if there are any issues with the Financial Status Report or additional explanation is needed, please provide that information here. If there are any delays for whatever reasons, these should be communicated to the AA and AOTR in advance.*

*From Article IX, Section 9.03 of your agreement: “During the performance of the grant, the Grantee must submit a Final Financial Status Report, Standard Form 425 (SF-425), to report the status of funds. In addition to SF-425, the Grantee should provide the break down of costs for each object class category (Personnel, Fringe Benefits, Travel, Equipment, Supplies, Contractual, Other, and Indirect Charges). This report must be submitted to the AA in electronic form via e-mail no later than [refer to your agreement for date.]”]*

The Final Financial Report SF-425 has been sent as a separate attachment to the AA.

The table on the next page identifies the funds awarded and funds expended from:  
September 01, 2016 through March 01, 2017,  
March 02, 2017 through August 31, 2017, and  
August 31, 2017 through November 15, 2017 for each Object Class under the agreement.



## 2016 PHMSA SDP GRANT – Object Class Category Summary – For CO811

Grant Awarded Aug 31, 2016  
 Grant Period Sept 01, 2016 to Aug 31, 2017  
 \$Funds Awarded \$91,750  
 50% Funds Received March 23, 2017 \$45,875  
 50% Funds Received June 30, 2017 \$45,875

### REPORTS:

Progress Through March 01, Due April 1, 2017  
 Final Through August 31, 2017, Due within 90 Days

PHMSA 2016 SDP Grant	CO811						Object Category Summary	
Object Class	Amount Requested	Amount Awarded	Amount Expended to March 01, 2017	Amount Expended to Aug 30, 2017	Amount Expended to Nov 15, 2017	Amount +Over or -Under	Description	Supports
a. Personnel	0							
b. Fringe Benefits	0							
c. Travel	0							
d. Equipment	0							
e. Supplies	0							
f. Contractual	40,000	40,000.00	0	40,000.00	0.00	0.00	Research operator issues related to Locate activity in Gas Distribution and pipeline industries, write a report to identify industry issues, assess factors, and provide potential solutions.	Element-3
	35,000	26,750.00	0	0.00	24,546.56	-2,203.44	Incident Scenario Simulation in One Location	Element-4
							Approved for October Presentation due to extreme fire season in foothills	
g. Construction	0.00							
h. Other	20,000	20,000.00	0	21,790.95	0.00	1,790.95	Fund 811 public awareness campaigns at the State and local level	Element-5
	5,000	5,000.00	0	5,000.00	0.00	0.00	Support Damage Prevention Action Team Fall Meeting, to include stakeholder meeting rooms, handouts, speaker fees	Element-2
<b>TOTAL:</b>	<b>\$ 100,000</b>	<b>\$ 91,750.00</b>	<b>\$ 0</b>	<b>\$ 91,337.51</b>	<b>\$ 24,546.56</b>	<b>-\$ 412.49</b>	<b>RETURNED TO PHMSA 12/21/2017</b>	

**NOTE: \$412.49 of unused funds were returned to PHMSA via CO811 CHECK on December 21, 2017**

### **Requests of the AOTR and/or PHMSA**

*[In most cases, any questions or actions requested of the AOTR and PHMSA (such as grant modifications in anyway) should have been addressed in advance of filing the report. If this is the case, simply state "No actions requested at this time" or explain any actions that are currently in process. However, if something has come up recently, or if you haven't been able to discuss with the AOTR yet, please describe here. ]*

Due to an extreme fire season along the front range foothills in the summer and into the fall, CO811 had to delay Objective 3, the Damage Incident Simulation Exercise. CO811 requested on 07/26/17 and was granted permission by the AOTR to hold the event in October 2017. The event was held on October 19, 2017 and the final vendor invoices paid by November 15, 2017