

April 24, 2015

**VIA HAND DELIVERY & ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket 2509 – Storm Contingency Fund  
January 26, 2015 Summary Report**

Dear Ms. Massaro:

In accordance with Rhode Island Public Utilities Commission (PUC) Order No. 15360 (August 19, 1997) and paragraph 4(a) of the Joint Proposal and Settlement in Lieu of Comments Submitted by The Narragansett Electric Company<sup>1</sup> and the Division of Public Utilities and Carriers (the Settlement) approved by the PUC in Docket 2509, I have enclosed ten (10) copies of National Grid's summary report on the planning and restoration activities associated with the January 26, 2015 Nor'easter Juno (Nor'easter Juno or the storm), which will likely qualify for inclusion in the Company's Storm Contingency Fund. Paragraph 4(b) of the Settlement requires the Company to file with the PUC within 90 days after the storm a report providing a description of the storm along with a summary of the extent of the damage to the Company's system, including the number of outages and length of the outages.

A supplemental report detailing the incremental restoration costs caused by Nor'easter Juno will be submitted to the PUC once the total costs have been accumulated by the Company, and final accounting of storm costs has been completed.

Thank you for your attention to this transmittal. If you have any questions regarding this filing, please contact me at (781) 907-2153.

Very truly yours,



Celia B. O'Brien

cc: Docket 2509 Service List  
Leo Wold, Esq.  
Steve Scialabba, Division

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (referred to herein as National Grid or the Company).

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

Copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and the Rhode Island Division of Public Utilities and Carriers.



\_\_\_\_\_  
Joanne M. Scanlon

April 24, 2015  
Date

**Docket No. 2509 – National Grid – Storm Fund  
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National Grid

The Narragansett Electric Company

**Report on  
January 26, 2015 Event,  
Damage Assessment and  
Service Restoration Efforts**

April 24, 2015

Docket No. 2509

**Submitted to:**  
Rhode Island Public Utilities Commission

Submitted by:  
**nationalgrid**

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**REPORT ON BEHALF OF  
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID  
ON THE JANUARY 26, 2015 STORM PREPAREDNESS, DAMAGE ASSESSMENT,  
AND SERVICE RESTORATION EFFORTS**

**I. EXECUTIVE SUMMARY**

The Narragansett Electric Company d/b/a National Grid (National Grid or the Company) presents the following report on the planning and restoration activities associated with the January 26, 2015 Nor'easter Juno (Nor'easter Juno or the storm), which affected Rhode Island and other states along the Eastern Seaboard. For pre-planning purposes, Nor'easter Juno was initially classified to be a Level 2 emergency event (i.e., up to 30 percent of customers impacted, 7,000 lines of outage and five-day restoration effort). The storm was projected to bring high winds, heavy snow, and coastal flooding causing significant damage to the Company's electric infrastructure. Although Nor'easter Juno brought record snowfall to many areas of the Company's service territory, the power outages were significantly less than anticipated, impacting approximately 3,650 (approximately 2,200 at peak) of the Company's customers. Overall, less than one percent of the Company's customers in Rhode Island experienced outages.

The Company began preparing for Nor'easter Juno on Sunday morning, January 25, 2015 with its first system storm call. The Company held the first divisional storm anticipation call on Friday morning, January 23, 2015. The Company followed its Emergency Response Plan (ERP), and mobilized employees and contractors for the restoration using a damage forecast based on its experience in previous storms. As part of its preparation efforts, the Company also contacted contractors from outside the Company's service territory to secure resources to help with restoration, and also contacted other utilities to request additional resources. Using its own crews and contractor resources, the Company restored power to 70 percent of its Rhode Island customers by approximately 1:45 p.m. on Tuesday, January 27. The final customer was restored at approximately 4:40 p.m. that same afternoon.

The Company is grateful for the support of customers, employees, state and local officials, and public safety officials, who experienced the effects of Nor'easter Juno and were an integral part of the Company's restoration efforts.

**II. INCIDENT ANTICIPATION**

**A. Determination of Incident Classification**

The Regional Emergency Operations Center (EOC) was located in Worcester, Massachusetts and opened at approximately 3:00 p.m., Monday, January 26, 2015. At the same time, a branch EOC was established and opened in Providence. As noted below, a System Incident Commander was named and was primarily responsible for establishing the projected and actual Incident Classification level for the storm.

Factors considered in initially establishing or revising the expected incident classification level included:

- Expected number of customers without service;
- Expected duration of the restoration event;
- Recommendations of the Planning Section Chief, Transmission and Distribution Control Centers, and other key staff;
- Current operational situation (number of outages, resources, supplies, etc.);
- Current weather conditions;
- Damage appraisals;
- Forecasted weather conditions;
- Restoration priorities;
- Forecasted resource requirements; and
- Forecasted scheduling and the pace of restoration work crews.

Through the system and operation storm conference calls, the System Incident Commander communicated the incident classification to Company leadership and organizations that the Company expected to engage in restoration or support activities. The Regional System Commander was located in Worcester, Massachusetts. A Branch Director who was in charge of Rhode Island restoration was located in Providence, Rhode Island.

#### **B. Activation of Incident Command System (ICS)**

In the days leading up to the storm, prior to activation of the ICS, several operational calls were held among operations management personnel to discuss the planning efforts for the possibility of a Nor'easter forecasted to bring blizzard conditions to Eastern New York and New England. As a result of these calls, the Company decided to open a storm room in Providence at approximately 3:00 p.m. on Monday, January 26 to support Rhode Island restoration.

In accordance with the ERP and ICS, National Grid activated the System Incident Commander and the New England Regional Incident Commander on Monday morning, January 26, 2015. The New England Regional Incident Commander then activated the Rhode Island Branch Director and several other Branch Directors in Massachusetts. Thereafter, all the Incident Commanders activated a number of positions at their discretion, considering the level of response likely required for the event. Throughout the evening on Monday, January 26, and throughout the restoration effort, the Company activated additional ICS positions as operating conditions warranted.

#### **C. Determination of Crew Needs and Pre-Staging**

Given the potential magnitude of Nor'easter Juno, the Company secured crews in advance from its alliance vendors and other outside contractors to support restoration efforts for all of New England as part of its regional preparation for the storm consistent with its ERP. The Company had a contingent of internal Rhode Island distribution line crews working overnight on Monday, January 26 and into the morning of Tuesday, January 27. Approximately 56 internal distribution line crews were available for restoration in the early afternoon of Monday,

January 26. Additionally, by midday on Sunday, January 25, the Company had secured a total of 135 distribution line and mutual aid contractor line crews and 101 contractor tree crews ready to respond to the hardest hit areas in the state. Transmission line crews were available for the entire New England region and ultimately 12 contractor transmission line crews were deployed in Rhode Island during the storm.

### **III. THE STORM AND ITS IMPACT**

#### **A. Forecast**

On Sunday, January 25, the weather forecast called for a major Nor'easter to impact the region on Monday night and Tuesday with blizzard conditions and possible coastal flooding. Snowfall amounts were forecasted to exceed 20 inches across the region, with the best chances across Eastern Massachusetts and Rhode Island. Hazardous wind gusts were expected. Major coastal flooding was forecast later Monday night and early Tuesday. By the time Nor'easter Juno began on January 26, the forecasted snowfall amounts were revised to exceed 20 inches across Central and Eastern Massachusetts and Rhode Island with wind gusts exceeding 60-70 mph on the Cape and the Islands, with 70-80 mph wind gusts on the Outer Cape and Nantucket. These winds could potentially cause significant tree damage and power outages.

#### **B. Impact**

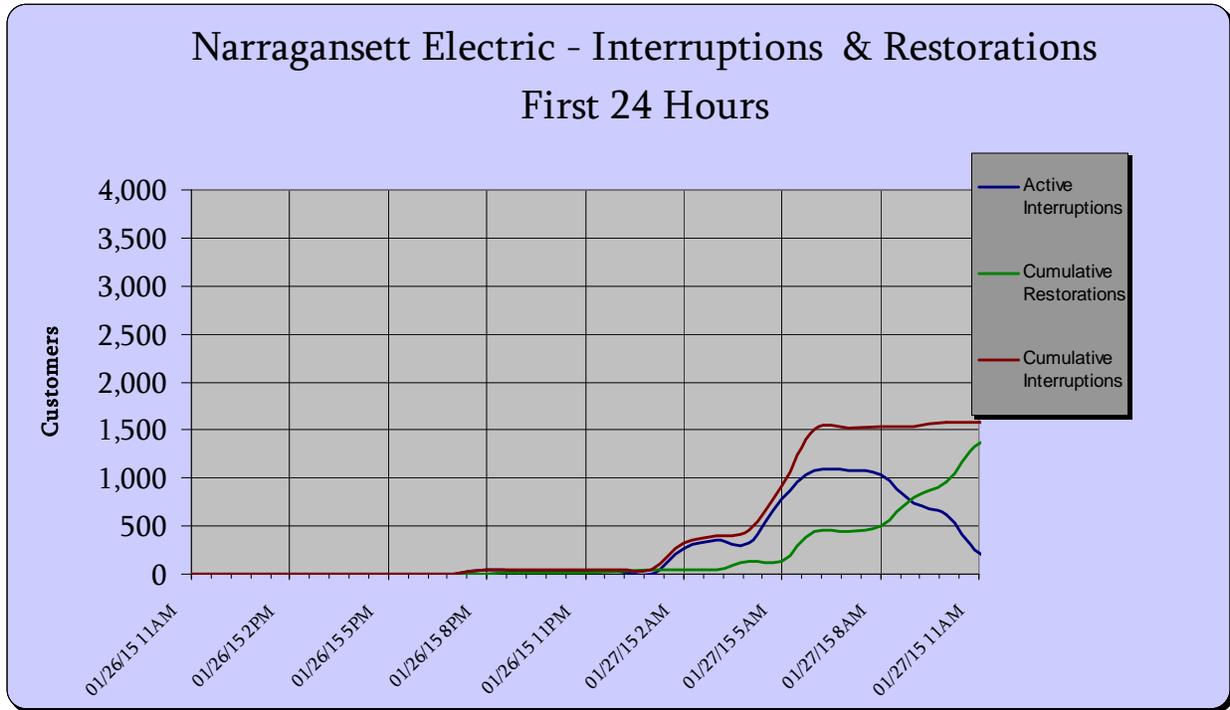
Nor'easter Juno had the potential to be a severe weather event. Very heavy snow was forecasted with amounts exceeding 20 inches across Eastern Massachusetts and Rhode Island. Hazard wind gusts with blizzard conditions were likely.

The storm impacted parts of the Northeast with heavy snow, high winds and coastal flooding from late January 26 until early January 28. Providence, Rhode Island experienced its fourth heaviest snowstorm on record with 19.1 inches of snowfall.

The storm impacted a total of approximately 3,600 customers in the Company's service territory and approximately 2,200 customers at its peak, which occurred on Tuesday, January 27 at approximately 1:15 p.m. Seventy percent of all outages were restored within 30 minutes at approximately 1:45 p.m. The final customer was restored at approximately 4:40 p.m. that same afternoon.

Figure 1 below shows the customers interrupted and restored, during the first 24 hours of the storm.

**Figure 1**



The Company experienced interruptions in 22 of the 38 communities it serves in Rhode Island. The storm had no effect on any transmission or sub-transmission lines in Rhode Island. The storm affected a total of 24 distribution feeders, 10 in the capital region and 14 in the coastal region.

All municipalities that had interruptions are shown in Figure 2 below.

**Figure 2**

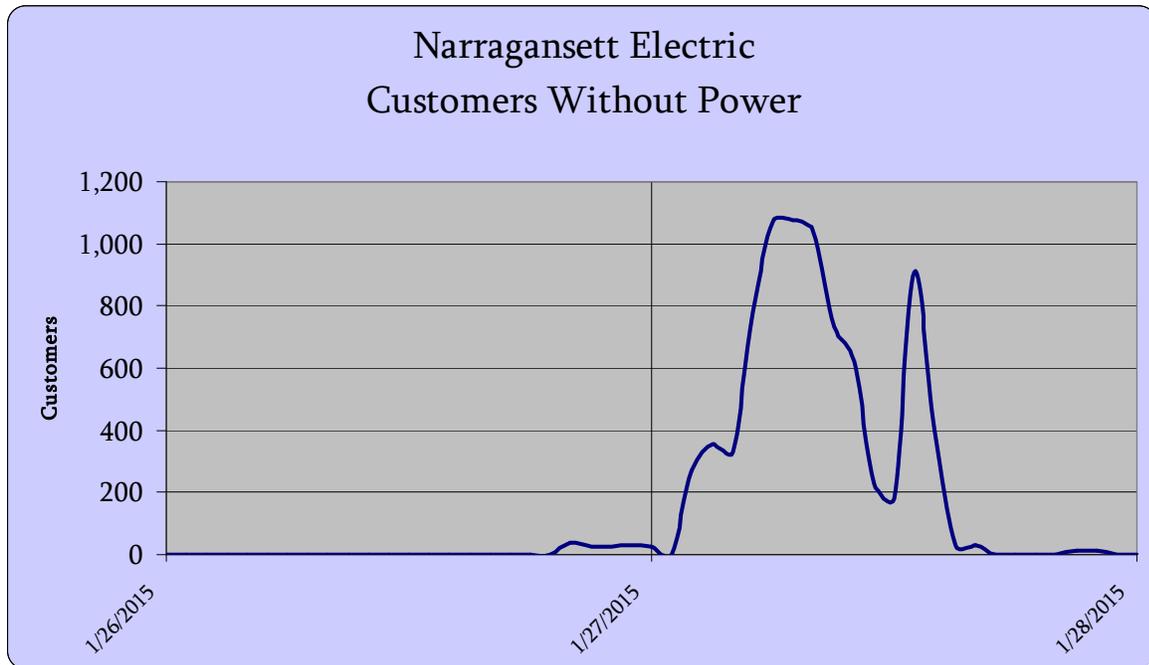
<b>Municipality</b>	<b>Customers Interrupted<sup>1</sup></b>	<b>Customers Served</b>	<b>Percent of Customers Interrupted</b>
WARREN	1310	5,766	23%
NARRAGANSETT	385	10,528	4%
PROVIDENCE	350	70,490	0%
SCITUATE	272	4,617	6%
SOUTH KINGSTOWN	200	14,497	1%
PORTSMOUTH	118	9,102	1%
CRANSTON	71	35,499	0%
WEST WARWICK	48	14,786	0%
NORTH KINGSTOWN	41	13,245	0%
CUMBERLAND	31	15,065	0%
JOHNSTON	24	13,355	0%
NEWPORT	15	15,013	0%
HOPKINTON	15	3877	0%
COVENTRY	12	15,637	0%
CHARLESTOWN	9	5,731	0%
RICHMOND	7	3,325	0%
WARWICK	3	40,594	0%
LINCOLN	1	9,921	0%
FOSTER	1	2027	0%
TIVERTON	1	8146	0%
NORTH PROVIDENCE	1	16,028	0%
PAWTUCKET	1	33,094	0%

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<sup>1</sup> This value can include multiple outages experienced by the same customer.

Figure 3 below shows a timeline of the number of customers without power during the storm.

**Figure 3**



The following sections contain additional details and context regarding the Company's storm restoration efforts.

#### **IV. RESTORATION**

##### **A. Timing and Priority of Service**

The Company implemented the system of prioritization for restoration found in the ERP, focusing first on public safety, and then with the overall goal of maximizing customer restoration when lines were energized. The Company gave priority and consideration to critical facilities and concentrated its efforts to restore service to its life support customers as quickly as conditions warranted, also as set forth in the ERP.

##### **B. Restoration Coordination**

Outages were dispatched out of the Providence storm room beginning on Monday, January 26 at approximately 3:00 p.m. through the end of the storm. The Company activated police and fire coordinators for the event. These employees reported to the storm room leads and were responsible for communicating the ETAs on all police and fire calls, with a standby condition noted.

In preparation for the storm, the Company mobilized the Providence wires-down room on Monday, January 26 at 6:00 p.m. with approximately 45 crews available (including wires-down

appraisers and cut and clear crews) and nine office-based employees. The Company monitored activity throughout the day on January 27 and based on inactivity de-mobilized the wires-down room at approximately 6:00 p.m. that evening. At that point, any wires-down issues were handled out of the local Providence storm room.

### **C. Personnel Resources**

When the forecast indicated that a storm event was possible, the Company began preparations to secure supplemental contractor crews who would be strategically placed throughout New England. The deployment plan allowed for the greatest degree of flexibility to move the resources to where they were needed, especially if Nor'easter Juno's storm track or intensity changed. Pre-staging crews and equipment in key locations throughout the region enabled the Company to restore service to customers as quickly and safely as possible. The Company's peak resources working in Rhode Island during the storm event are provided in Attachment 1.

At peak, approximately 459 field crews<sup>2</sup> were used to restore power to customers, including approximately 304 external crews and 155 internal crews. This peak number of external and internal crews includes Transmission and Distribution Line, Vegetation Management, Wires Down, and Substation personnel.

### **D. Safe Work Practices**

Safety is always at the forefront of Company operations, including and especially during activities associated with storm restoration. Both the System and Regional ICS structure designate a lead position for a Safety, Health, and Environment Officer. Safety messages are delivered on all calls to heighten awareness during pre-storm preparation.

As with any storm, prior to Nor'easter Juno's arrival, National Grid assembled a safety team with area responsibilities, established the reporting hierarchy, and prepared and communicated organization charts. The safety team prepared safety notices and delivered them Company-wide to all employees through corporate communications. Safety personnel were deployed to assist in specific geographic areas and delivered on-site safety orientations to National Grid workers and contractors prior to the start of each day. During Nor'easter Juno, safety personnel were regularly assigned to work sites to advise Company personnel and contractors of safety issues and practices. In addition, prior to the start of each new job, the work was reviewed by assigned crews, with a focus on safe working conditions for the specific job.

## **V. COMMUNICATIONS DURING AND AFTER THE EVENT**

### **A. Communication Regarding Estimated Times for Restoration (ETR)**

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<sup>2</sup> Crews typically include two or three people, although there are some one-person crews in damage assessment, wires down (appraisers), and distribution line (troubleshooters). The transmission crews typically include 6-10 people.

The Company posted ETRs on its website during Nor'easter Juno, using Outage Central which provided real time ETR updates approximately every 15 minutes.

As ETRs changed, the updated restoration information was entered into the system and reflected on Outage Central. Throughout the event, the ETRs for each outage were revised to show the most accurate restoration information.

## **B. Intra-Company**

System-level storm calls were held at least once daily, beginning on Saturday, January 24 through the end of restoration. The final system-level call was held on Tuesday, January 27. The divisional storm calls were also held daily, starting on Friday, January 23, with the final call on Wednesday, January 28.

Communications were issued to field crews with both restoration and safety information.

## **C. Public Officials**

### **1. Governor's Office**

The Company had communication with the Governor's office before and during Nor'easter Juno. The Company also had brief conversations with the Speaker's Office and staff from Senator Whitehouse's office during the storm.

### **2. Rhode Island Public Utilities Commission (PUC), Division of Public Utilities and Carriers (Division) and Rhode Island Emergency Management Agency (RIEMA)**

The Company's Jurisdictional President reached out to the PUC and the Company's Director of Regulatory Affairs reached out to the Division regarding the Company's storm preparation.

The Company's Emergency Management Agency liaisons were stationed at RIEMA's offices in Cranston, beginning on Monday, January 26 until approximately 12 p.m. on Wednesday, January 28. The RIEMA liaison maintained communications with Emergency Support Function staff located at the EOC, as well as other first responders. The Company's RIEMA liaisons researched and responded to questions and raised priorities to the Branch Liaison Coordinator.

### **3. Municipalities**

The Company opened a municipal room on Tuesday, January 27 at approximately 7:00 a.m. in Providence. The room was opened to effectively manage and communicate with the large number of impacted communities in Rhode Island. The municipal room was co-located with the Company's branch operations response personnel. This arrangement afforded efficient access to key restoration personnel in researching and communicating the priorities of the municipalities.

The Company deployed National Grid community liaisons to work with the city or town's emergency, safety and public officials as a dedicated liaison. These community liaisons were full-time resources supporting specific communities, and enabled direct communications back into the Company's branch municipal rooms, public information coordinators and branch operations personnel.

The Company held a pre-event municipal call with the communities in the state on Monday, January 26 at 11:00 a.m. The Company communicated its preparation activities and post-event restoration and communications plan.

Based on the limited outage activities the municipal room and community liaisons were deactivated on Wednesday, January 28 at 9:00 a.m.

#### **D. Customers**

The Company notified life support customers regarding possible outages through our Call Center. On Monday, January 26 at approximately 11:30 a.m., an outbound call was made to all life-support customers. The Call Center secured additional staffing to respond to incoming life-support calls for those affected by outages. A total of 19 life-support customers were affected by outages. The Company continued to conduct pro-active calls to its life support customers until all power was restored.

#### **E. Media**

The Company distributed storm-related news releases on January 25, 26, and 27. Both traditional and social media channels were engaged to distribute the news releases. In Rhode Island, the Company conducted approximately 10 media interviews over the three-day period. A media teleconference conference call with Timothy F. Horan, President of National Grid in Rhode Island, was held on January 27 with four Rhode Island media outlets participating. Peak outage numbers in Rhode Island never exceeded approximately 2,200 customers, limiting media storm coverage. On January 29, the Company issued a news release concerning aerial inspections of sub-transmission power lines.

### **VI. CONCLUSION**

Although Nor'easter Juno's impact was not as severe as forecasted, it, nonetheless, caused interruptions to thousands of Rhode Island customers, mostly as a result of damage to the Company's distribution infrastructure. However, the Company was prepared, having secured all necessary crews and other outside contractors, to aid in the restoration effort. Through use of the Company's own distribution line resources, contractor distribution, transmission line crews, and contractor tree crews, the Company restored service to its customers in the wake of the Nor'easter Juno in a safe and expeditious manner.

# Attachment 1

## January 26-27 2015 Storm - Rhode Island Resources

Resource Type	Peak Crews Working
Number of Company Line Crews (1)	56
Number of Company Tree Crews (2)	-
Number of Company Wire Down Crews (3)	80
Number of Company Damage Appraiser Crews (4)	7
Number of Company Substation Crews (5)	12
Number of Company Transmission Crews (6)	-
<b>Total Company</b>	<b>155</b>
Number of Contractor Line Crews (2)	80
Number of Contractor Tree Crews (2)	101
Number of Contractor Wire Down Crews (3)	-
Number of Contractor Damage Appraiser Crews (4)	56
Number of Contractor Substation Crews (5)	-
Number of Contractor Transmission Crews (6)	12
<b>Total Contractor</b>	<b>249</b>
Number of In-State Mutual Aid Line Crews (2)	-
Number of In-State Mutual Aid Tree Crews (2)	-
Number of In-State Mutual Aid Wire Down Crews (3)	-
Number of In-State Mutual Aid Damage Appraiser Crews (4)	-
Number of In-State Mutual Aid Substation Crews (5)	-
Number of In-State Mutual Aid Transmission Crews (6)	-
<b>Total In-State Mutual Aid</b>	<b>-</b>
Number of Out-of-State Mutual Aid Line Crews (2)	55
Number of Out-of-State Mutual Aid Tree Crews (2)	-
Number of Out-of-State Mutual Aid Wire Down Crews (3)	-
Number of Out-of-State Mutual Aid Damage Appraiser Crews (4)	-
Number of Out-of- State Mutual Aid Substation Crews (5)	-
Number of Out-of- State Mutual Aid Transmission Crews (6)	-
<b>Total Out-of-State Mutual Aid</b>	<b>55</b>
<b>Peak Number of Crews Working</b>	<b>459</b>

**Note: All resources are reported as crews**

- (1) Typically 2-person crews , but also include single troubleshooters
- (2) Typically 2-person crews , but may also include some 3-person crews
- (3) Wire Appraisers are 1-person crews, Cut and Clear are 2-person crews
- (4) Typically 2-person crews, but may also include some 1-person crews
- (5) Typically 2-person crews
- (6) Typically 6-10 person crews