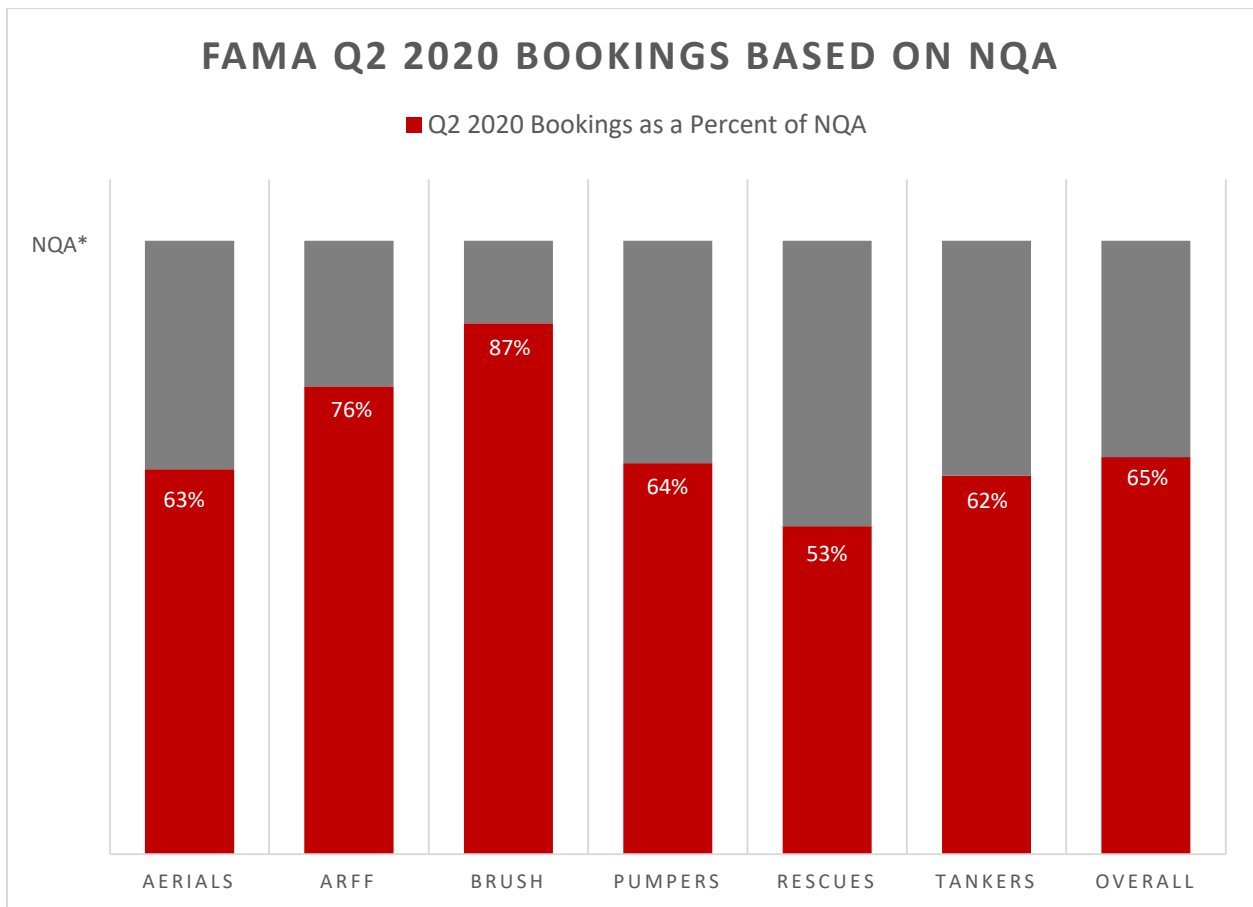**F**IRE
APPARATUS
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FAMA Q2 2020 Booked Data Statistics Overview

As many forecasted, second quarter 2020 apparatus bookings were majorly impacted by the COVID-19 Pandemic. Total apparatus sales fell by more then 35% from the last rolling Nine Quarter Average (NQA)*. Total apparatus sales fell by 3 times the standard deviation**, a clear indicator of an abnormal influence effecting them, in this case the pandemic and shutdown as the most likely cause. Rescue sales surprisingly were the hardest hit, with a 46.5% drop. Brush truck sales were the least disrupted with only 13.5% drop from the NQA. Now let's take a more in-depth look at each category.

FAMA Q2 2020 BOOKINGS BASED ON NQA

■ Q2 2020 Bookings as a Percent of NQA

NQA*

AERIALS	ARFF	BRUSH	PUMPERS	RESCUES	TANKERS	OVERALL
63%	76%	87%	64%	53%	62%	65%

Aerials: Aerial bookings fell by 37% from the NQA, two times the standard deviation we have seen in the previous quarters.

ARFF: ARFF sales fell by 24% the NQA, but its not as bad as it seems. If you remove the abnormally high Q3 2018 bookings, ARFF sales fell by 10% only half of the standard deviation. Q2 2020 bookings were also higher than Q1 2020.

Brush: Brush trucks sales were very similar to ARFF sales falling by 13% from the NQA, well within the then standard deviation for the quarter. If you remove the high-water sales of Q2 and Q4 2018, brush truck sales during Q2 2020 were exactly average to the other past seven quarters.

Pumpers: Pumper sales are the core of apparatus sales and account for 57% off all units sold. This unfortunately was one of the products impacted the hardest by the COVID-19 Pandemic. Second quarter pumper sales fell 36% from the NQA. Sadly, there is no skewing of the pumper stats, even if you remove the two highest booking quarters (Q3 and Q4 2019) it still fell 33%, two times the standard deviation.

Rescues: Rescues saw the biggest drop of all among the product lines, falling 46.5% of the NQA. The impact is lessened by the fact that rescues only make up about 15% of total apparatus sales.

Tankers: Tankers were another hard-hit market segment, falling by 38% of the NQA and 3.6 times the standard deviation in tanker sales.

Overall: To summarize, the impacts of the shut down on fiscal budgets has negatively impacted apparatus sales by more than 35% of the NQA and by 18% the previous low of Q2 2018. So far, ARFF and Brush truck sales have not been impacted, but Q3 sales data is needed to fully grasp the impact on the fire service.

*NQA is calculated by taking the average of booking per segment from Q1 2018 through Q1 2020.

** Standard Deviation: In statistics, the standard deviation is a measure of the amount of variation or dispersion of a set of values. In this case, the plus or minus difference over the NQA that you would normally expect to see. The higher the number of times standard deviation a data point is in terms of Statistical Process Control (SPC) the more likely it is to be a special cause variation (i.e. it is assignable to a cause, vs common cause variation which is considered normal).

This report is produced and provided by the Fire Apparatus Manufacturers' Association (FAMA).

The Fire Apparatus Manufacturers' Association is a non-profit trade association. Members of FAMA are committed to enhancing the quality of the fire apparatus industry and emergency service community through the manufacture and sale of safe, efficient fire apparatus and equipment.

The overall goal of FAMA is to advance and protect the interests of the fire and emergency services community through the use of our member companies' resources. To accomplish this, FAMA members work closely with national and international organizations within the fire services and fire industry. Members assist in the development of safety and performance standards, programs and objectives for improving fire apparatus and equipment. FAMA also provides the fire and emergency services community with the essential tools and information to help promote the need for newer and safer apparatus.