



BOSTON MARATHON INSIGHTS



LIVE EXPERIENCE INSIGHTS AT A WORLDWIDE MAJOR MARATHON

WORLD'S OLDEST ANNUAL MARATHON

The Boston Marathon is one of the most prestigious and innovative marathons in the world. Begun in 1897, the event was inspired by the success of the first marathon competition in the 1896 Summer Olympics. The Boston Marathon is the world's oldest annual marathon and ranks as one of the world's best-known road racing events. It is one of six World Marathon Majors. Its course runs from Hopkinton to Boston.

The 2018 edition: one to remember

The 122nd edition of the Boston Marathon on Monday April 16th was one to remember. Not only because of the horizontal rain and freezing temperatures on Marathon Monday, but also because of the use of technology to bring the event experience to the next level.

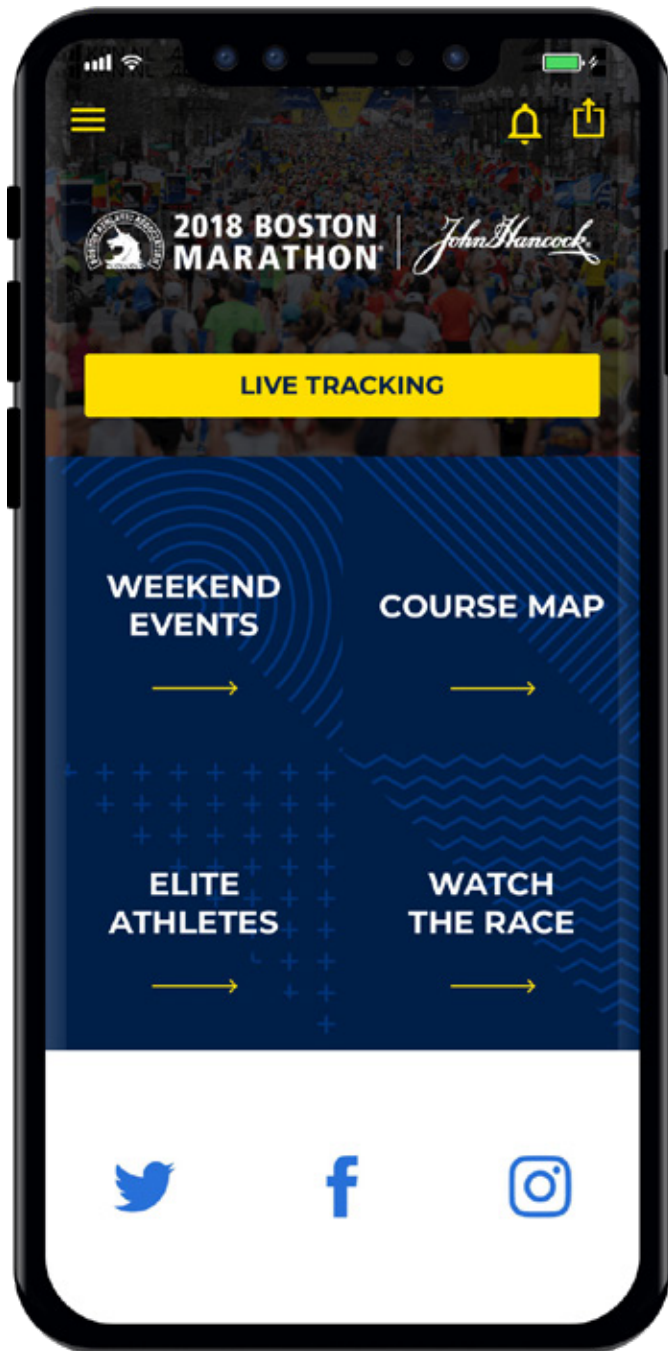
This whitepaper offers you tech insights on how timing technology was used to enhance the overall race experience for athletes, fans and volunteers.

Learn why live timing data is crucial and how this can be executed flawlessly.





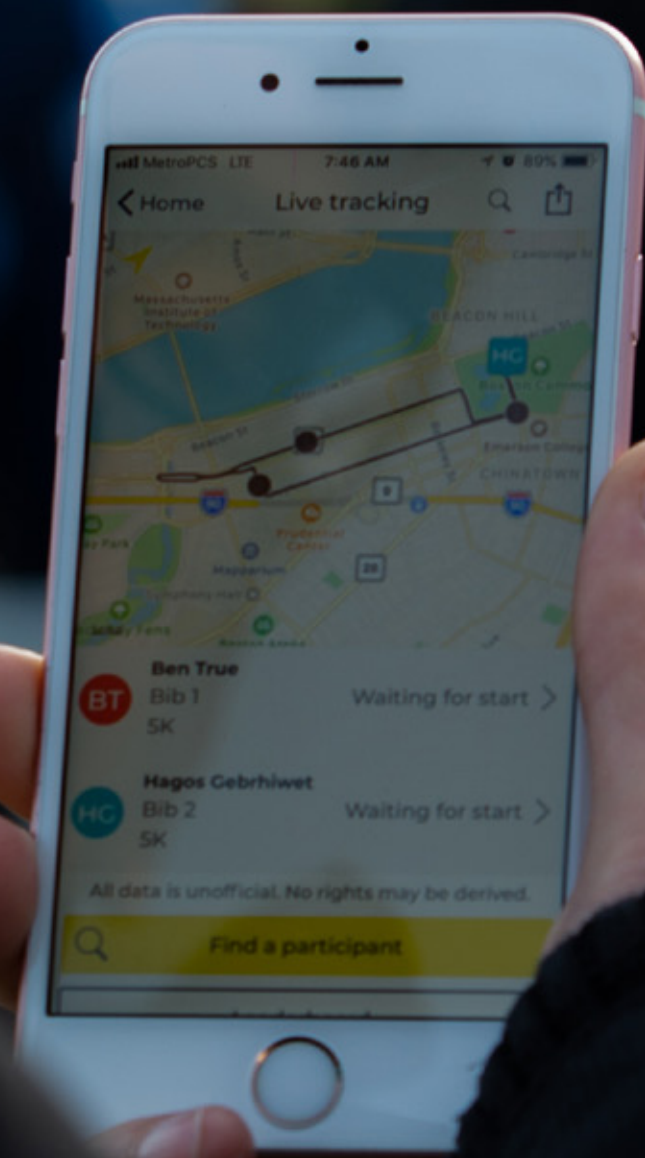
STRONG MIX OF HARDWARE AND SOFTWARE SOLUTIONS



This year the Boston Marathon once again relied on MYLAPS technology. All runners wore bibs with the new MYLAPS ThinTag, a lightweight RFID solution that's detected by detection mats on the course.

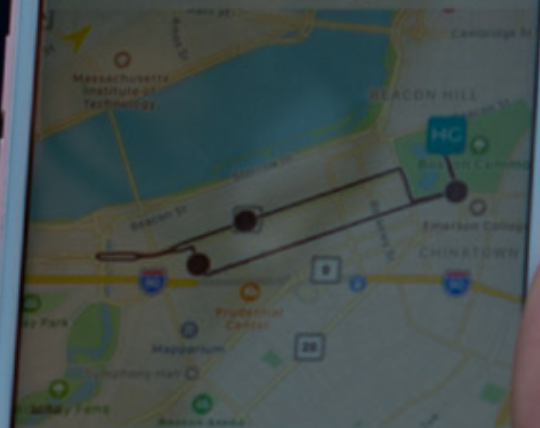
New this year was the use of the MYLAPS EventApp. The app (available on iOS and Android) allowed users to follow and track runners throughout the day. Users were notified about the progress of their favorite runners as well as estimated finish and split times.

The app calculated the runner's pace, showed the runner's progress along the course, and provided comprehensive race results. The real-time leaderboards and information on past marathon achievements were especially interesting for followers of the elite athletes.



MetroPCS LTE 7:46 AM 80%

< Home Live tracking



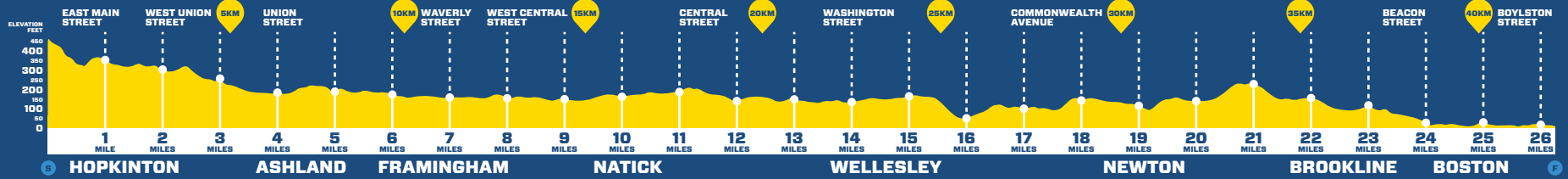
- Ben True**
BT Bib 1 SK Waiting for start >
- Hagos Gebrhiwet**
HG Bib 2 SK Waiting for start >

All data is unofficial. No rights may be derived.

Find a participant

BOSTON MARATHON

COURSE MAP



1

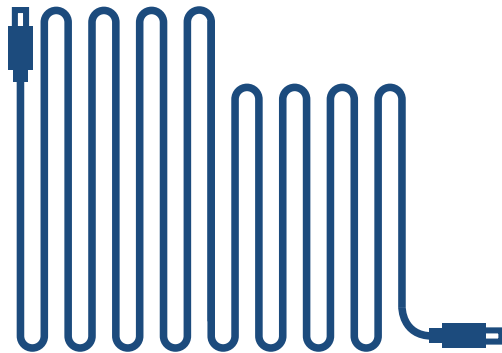
App

(iOS & Android)



1,324

Meter of cables



130

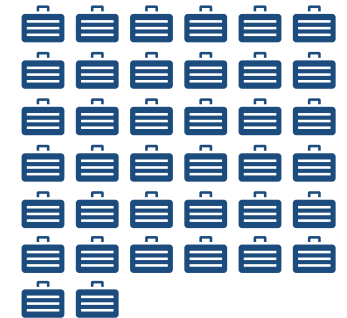
Servers

☐ = 10 X



38

BibTag decoders



15

Timing locations



27,042

Runners

☑ = 1000 x

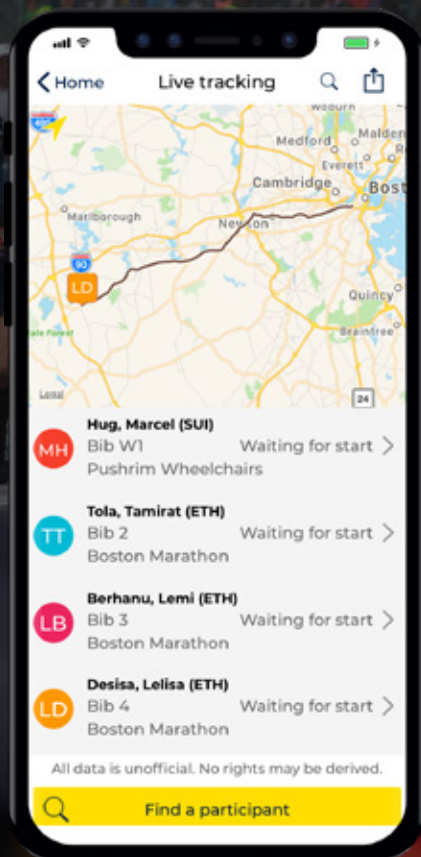


BOSTON MARATHON '18 SHOWCASE

"Watching, running, or volunteering at a B.A.A. event is a powerful experience, and the app captured and communicated some of that power to fans far and wide. To see the approximate locations of our favorite runners, in real time, is a powerful tool, and we were very pleased with the way it worked. These metrics show that our followers, runners and volunteers really enjoyed and appreciated the app."

T.K. Skenderian
Communications Director at the Boston Athletic Association

Read the full interview on page 9



WHAT THE SPECTATORS ARE SAYING:

"It's great how interactive this experience can be for people to connect to a runner on their phone! I guess it beats standing out in the cold and rain!"
- David J.

"Great sharing of race technology from #BostonMarathon. I love the app!"

P.S. She's almost there!"
-Michelle W.

"Tracking app that is really cool! Steve is showing up already!"
- Jerry K.

"If you download the Boston Marathon app, it's super easy and fun to track everyone! Just an FYI!"
- Barb F.

INTERESTING FACTS

1

Most popular
App in stores,
category sports

177,322

Downloads
of the app

10,4

Million in-app
screen views on
race day

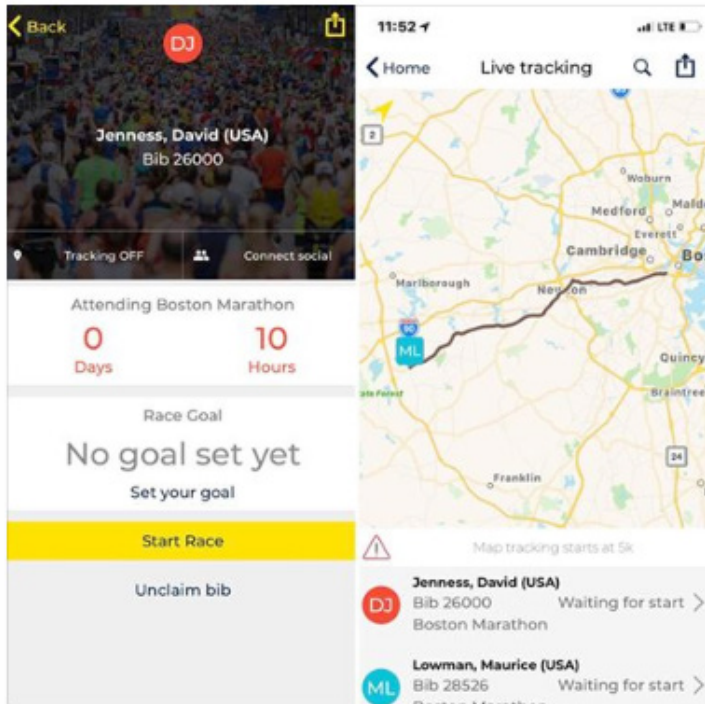
28:32

Average session
duration in
minutes

EVENTAPP GOING VIRAL

David Jenness
April 16 at 5:59am · 🌐

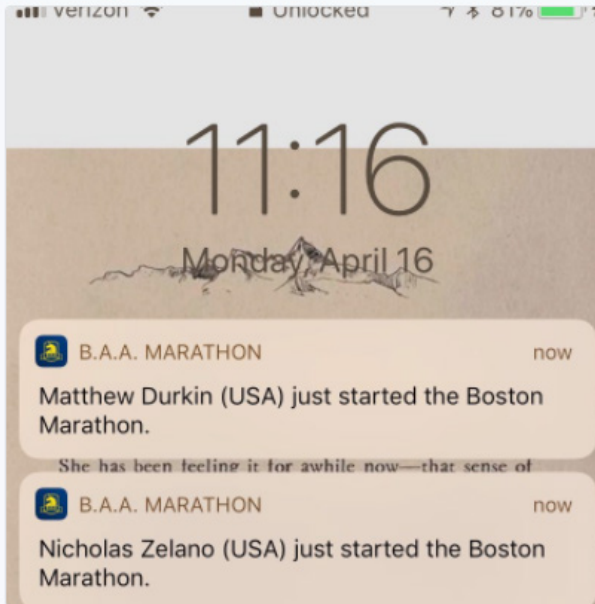
The Boston Marsthon is now only hours away.. the race starts for me at 11:15. For those interested I can be tracked live on the Boston Marathon app just download it and type in my name or text my bib number 26000 to 234567. It's great how interactive this experience can be for people to connect to a runner on their phone! I guess it beats standing out in the cold and rain!



👍❤️ 45 12 Comments 1 Share

Like Comment Share

Christina E DeRosso @delrossoce · 16 apr.
And...Matt has started the marathon!! Nick Zelano is also running for the Durkin Foundation. Thanks to the @bostonmarathon app for live tracking!! #OnlineJaehnigism



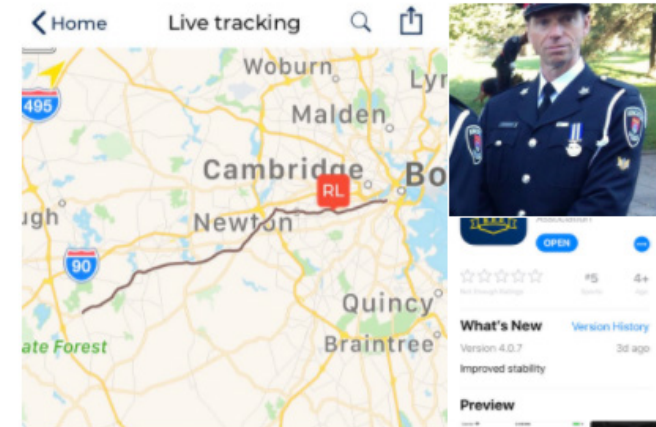
🗨️ 🔄 ❤️ 5

g.sterling @GiselleSterling · 16 apr.
Tracking the @bostonmarathon Military Relay Team through the @BAA app & the batton they'll be passing from Hopkinton to Boston! Here we go!!



🗨️ 🔄 1 ❤️ 1

Cst Steve Koopman @KP_Patrol · 16 apr.
So excited to watch retired Cst. Ron Leyenhorst live as he progresses close to the finish line of the #BostonMarathon! Download the B.A.A. Marathon app and search for his name. Proud of ya man! 🙌👍



🗨️ 🔄 1 ❤️ 12



‘THE MOST IMPORTANT ASPECT OF THE APP WAS RUNNER TRACKING’



INTERVIEW WITH T.K. SKENDERIAN
COMMUNICATIONS DIRECTOR AT THE BOSTON ATHLETIC ASSOCIATION

T.K. SKENDERIAN (BOSTON ATHLETIC ASSOCIATION) SEES THAT SPECTATORS DESIRE A MORE ENGAGED EXPERIENCE ON THEIR PHONES. ‘WE WERE THRILLED TO SEE HOW THE RUNNER TRACKING WORKED ON RACE DAY.’

HOW HAVE THE DEMANDS AND EXPECTATIONS FROM SPECTATORS CHANGED OVER THE LAST FIVE YEARS?

I think our spectators crave a more engaged experience, especially on their mobile device. I think this is true at any sporting event, yes, but at a point-to-point road race, there may only be one chance for you to see your favorite athlete. If our app can not only add peace of mind to that process, but also engage our spectators in other ways while they wait, we’ve elevated our brand and their experience. I think we did that this year.

HOW DO NEW TECHNOLOGIES SUPPORT STRATEGIC GOALS?

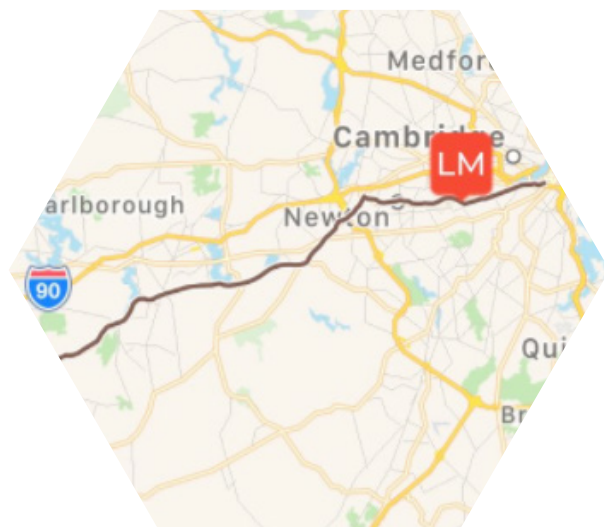
One addition this year at the Boston Marathon was three new timing mats along the course. This addition allowed for our mobile app tracking to be more accurate in the later phases of the race, and to send more push notifications to followers as athletes navigated the final eight miles. This increased data made for a more connected spectator experience. Back when we were reviewing proposals for the relaunch of our mobile app, the most important aspect of the new B.A.A. app was going to be runner tracking on race day. MYLAPS won our business because they proved they could deliver that, and we were thrilled to see how it worked on the day of the Boston Marathon. It validated our selection.



FOLLOW THE ACTION

27,042

Starters could be followed live during this iconic event



14,487

Followers in the app for US athlete Shalane Flanagan

2.2 million

Push messages have been sent with live updates from the runners' progress



The live tracking functionality was the most used feature in the app



5992

Marc

• B.A.A. DISTANCE MEDLEY

5992

CHASCO, Marc
Male, 55
Tingwick CC

EXPLORING THE APP

On race day the average session duration of the app users was 28:32 min, so they took their time to explore the app which included all relevant event information for runners, spectators and volunteers.

Another important feature was the Bio section of all Elite Athletes with the latest information and personal bests of the top runners.

10.4 million

Screen views in total

614,000

The amount of times the app has been opened

17

Screens per user per session on average

9,500

Volunteers at the race



'THIS IS THE SUPER BOWL OF RUNNING'



INTERVIEW WITH JON KRUPA
OFFICIAL TIMER OF BOSTON MARATHON

JON KRUPA IS VICE PRESIDENT OF ECLIPSE TIMING. HE LOOKS BACK ON AN ICONIC RACE DAY, WHERE A TEAM OF 20 TIMERS DID A GREAT JOB. 'EVERYONE WANTS REAL-TIME DATA FROM THE COURSE.'

WHAT IS UNIQUE IN TIMING THE BOSTON MARATHON?

The most unique aspect of timing the Boston Marathon is the level of publicity. The Boston Marathon is the Super Bowl of running and the entire world is watching. There is absolutely no margin for error or room for even a minor failure. The level of detailed planning required for an event like this is very significant to ensure every aspect of what may happen that could place timing operations at risk has been thought of and to ensure a plan is in place to deal with it as quickly as possible.

HOW MANY PEOPLE/ TIMERS/ COMPANIES ARE INVOLVED?

Timing operations has a team of 20 timers including myself representing 5 different timing companies, Eclipse Timing, MTEC, The Last Mile Racing, Nova Timing and Precision Race Results. This doesn't include mika:timing whom handles the results production and distribution or Information Overload that manages the various technology groups.



HOW DO YOU PREPARE FOR SUCH AN EVENT?

Testing, testing, testing. We do a lot of testing. The main thing is to ensure everything and everyone is well organized. My planning starts months in advance and the last 6 weeks of planning is all Boston all the time. It's always great to reunite myself with my bed afterwards.

HOW DO YOU ALL MANAGE THE POINTS AND COMMUNICATIONS?

How do you run a marathon? One step at a time. Being more serious, communications is a large part of the planning process. Everyone wants real-time data from the course so the communications plan is vital to ensuring people have access to the data they need. Especially television and other media, the operations center and the Massachusetts Emergency Management team.

EQUIPMENT USED



We use MYLAPS BibTag Timing Systems at **14 timing locations** along the course, **38 BibTag Decoders** and **214 timing mats**.

HOW IS TIMING THE BOSTON MARATHON DIFFERENT FROM TIMING ANY OTHER RUNNING EVENT?

The biggest difference is the scale of operations. There's more people, more equipment, more timing locations, more logistical problems, etc. My operations manual is about 110 pages cover to cover and I keep adding more detail every year. There's a lot more going on than just throwing down some timing mats, collecting data and spitting those results out to the internet. There's a lot of moving parts involved very few people understand. Everyone and every system involved needs to be on the same path.

'ALL SERVICES LIKE EVENT APPS AND PHOTO SERVICES ENHANCE THE PARTICIPANT AND SPECTATOR EXPERIENCE GREATLY'

HOW DO YOU SEE THE DIGITAL DEVELOPMENTS LIKE EVENT APPS AND PHOTO & VIDEO SERVICES?

I think all of these services enhance the participant and spectator experience greatly. Especially for family and friends that are not able to be at the race in person. Being able to track their favorite runner in real-time, see photos and videos of them enables them to share that lifetime experience.

HOW DOES IT IMPACT YOUR WORK?

Planning for any major event is a lot of work. I take my role very seriously and want to ensure my team is well prepared to make the race as successful as possible. These additional services have just become another thing we as technology service providers need to plan for. It's just more time, more coordination, more testing and of course all the research & development that goes into learning about all the new technology races are now demanding.

WHAT DOES BOSTON MARATHON MEAN TO YOU PERSONALLY?

The timing operations team is a wonderful group of people. The team dynamic we have is truly special and I'm very humbled to be a part of it. I'm also very humbled being in the position I am and to be trusted to fulfill the role I play is truly an honor. The thing about the Boston Marathon is seeing the world come together in peace to enjoy a wonderful sport and to share a remarkable experience together.





THE BEATING HEART OF THE SYSTEM

All technical innovations start with accurate and reliable live data. Therefore the Boston Marathon relies on MYLAPS technology.

At this year's race the following equipment was used:

BibTag Mats

Serve as the system's antennas and detect the signals sent out by the tags.

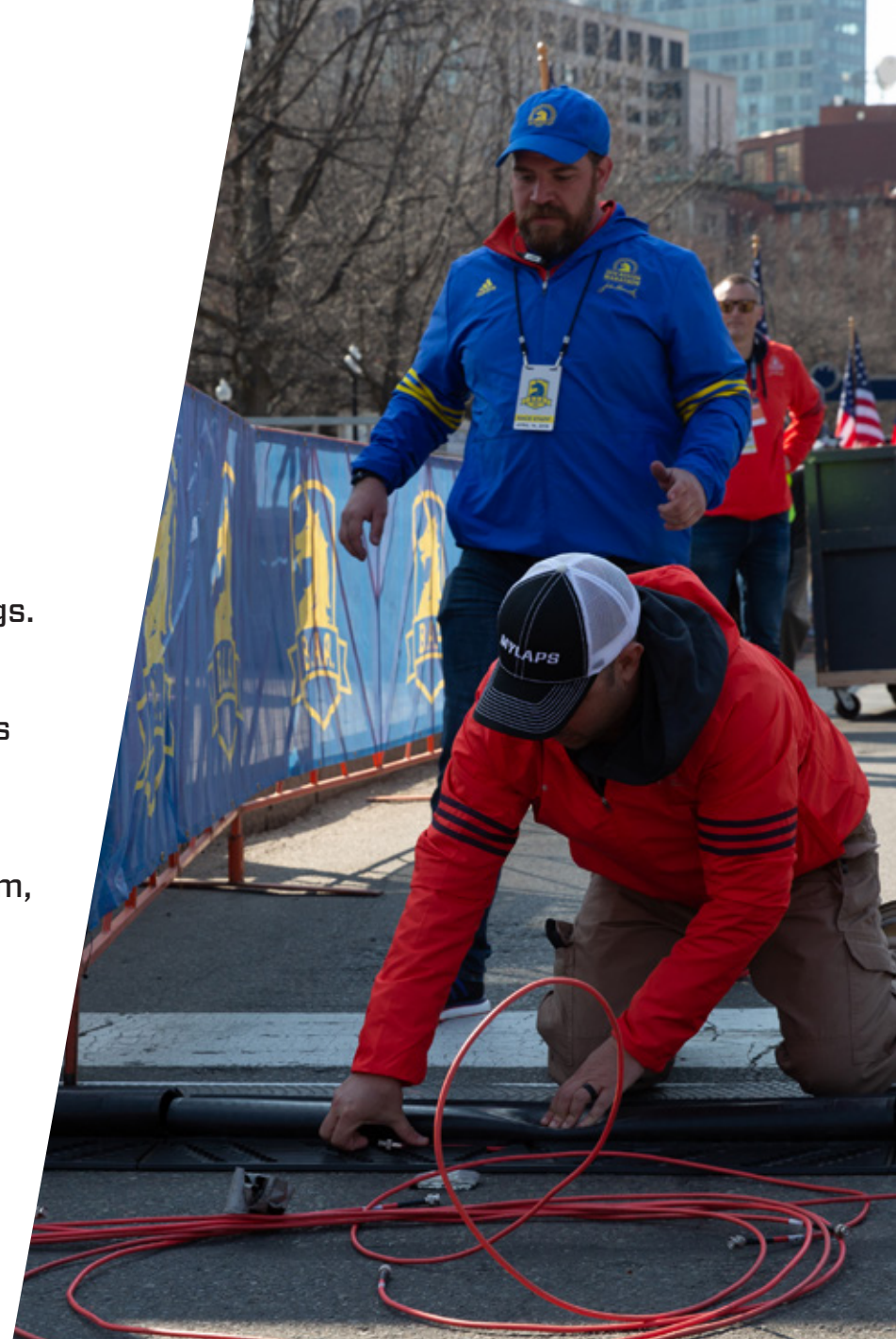
BibTag Decoders

Attached to the mats and decoder the BibTag signals into the athlete's IDs and their measured times.

ThinTags

The new standard in mass event timing. Have a thickness of less than 2mm, which saves a lot on shipping and storage. The spacer is designed to only expand in contact with liquid. IAAF approved.

All timing data from start to finish and all 12 split points was processed to the app.







*BOSTON MARATHON INSIGHTS
POWERED BY*

MYLAPS
SPORTS TIMING