

Apple iPhone 15 launch event

Company Participants

- Daniela Deschamps, Apple Watch Product Design Engineer
- Deidre Caldbeck, Director of Apple Watch Product Marketing
- Deniz Teoman, Vice President, Hardware Systems Engineering
- Fabrice Navrez, Executive Producer
- Fish Ling, Senior Director of Global Business Development
- Greg Joz Joswiak, Senior Vice President, Worldwide Marketing
- Isabel Yang, Materials Science Engineer
- Jeff Williams, Chief Operating Officer
- Kaiann Drance, Vice President, iPhone Product Marketing
- Lisa Jackson, Vice President, Environment, Policy and Social Initiatives
- Maryam Azimi Hashemi, Image Quality Engineer
- Meng Wang, Executive
- Misha Scepanovic, Director, Optical Engineering
- Sribalan Santhanam, Vice President, Silicon Engineering Group
- Tim Cook, Chief Executive Officer
- Tsuyoshi Kanda, Manager

Presentation

Tim Cook {BIO 14014370 <GO>}

(Audio Video Presentation)

Good morning. Welcome to Apple Park. We're so excited you could join us today for some big announcements about two essential products, Apple Watch and iPhone. Like we just saw, nothing's more important than helping save lives. And it's amazing to see all the ways people use Apple Watch and iPhone every day. We're going to talk more about what's coming next to these products. But first, I'd like to provide a couple of updates starting with the Mac.

In June, our Mac lineup got even better. We introduced the two most powerful Macs we've ever shipped, the new Mac Studio and Mac Pro. This completed the transition of the Mac to Apple silicon. We also introduced the world's best 15-inch laptop, the new 15-inch MacBook Air. And the reaction has been fantastic. Tom's Guide said, the 15-inch MacBook Air is the best 15-inch laptop you can buy. And Marques Brownlee said, the 15-inch MacBook Air is going to instantly rocket to the top of the lineup to become the most popular 15-inch laptop. We love the new MacBook Air and the entire Mac lineup. It's the best and most capable lineup in the history of the personal computer.

We also unveiled Apple Vision Pro, an entirely new spatial computing platform, where your digital content seamlessly blends with your physical space. Everything looks better on Vision Pro, including your favorite TV shows and movies, like the new season of The Morning Show, which starts this week. And the response to Apple Vision Pro has been absolutely amazing. We're so pleased that people are as excited about Apple Vision Pro as we are.

Apple Vision Pro has also captured the imagination of our remarkable developer community. We're extremely excited about what they're already showing us in our developer labs around the world. They're creating truly amazing experiences that wouldn't be possible on any other platform.

Our Apple team is also making great progress with Vision Pro, and we're on track to ship early next year. We look forward to sharing Apple Vision Pro and its breakthrough spatial experiences with all of you.

Now let's get to the big news of the day, about Apple Watch and iPhone. Their innovative features and industry-leading technologies help improve our lives in so many meaningful and delightful ways. Apple Watch helps us stay healthy, active and connected. And iPhone impacts just about everything we do. They're with us all the time. And if you left either one at home, I bet you'd go back and get it.

So we're excited to talk about how we're taking Apple Watch and iPhone even further. Let's get started with Apple Watch. Here's Jeff to tell you more.

Jeff Williams {BIO 16886071 <GO>}

Apple Watch helps millions of people live a better day. It monitors your health, motivates you to be active, connects you to the people and information you care about and can even contact help, if needed. And today, I'm excited to introduce the next-generation of Apple Watch.

Apple Watch is the world's most popular watch, and Series 9 takes it to the next level, with powerful new Apple silicon and amazing new features that you'll use every single day. Here's Deidre to tell you all about it.

Deidre Caldbeck

Apple silicon powers the incredible capabilities built into every Apple Watch. Designing our own chips and tightly integrating them with watchOS unlocks innovative features, like advanced workout metrics, sleep stages and car crash detection. Apple Watch Series 9 has been redesigned on the inside with the all-new S9 SiP, giving it a big boost in performance and capabilities. It's our most powerful watch chip yet.

The S9 CPU has 5.6 billion transistors, 60% more than Series 8, and its GPU is 30% faster. The new S9 chip makes the animations and effects in watchOS 10 look super-

smooth. S9 also has a new four-core Neural Engine that can process machine learning tasks up to twice as fast. This powerful custom silicon is what allows us to maintain all-day 18-hour battery life, while adding new features and systemwide improvements to Series 9.

Because it's always on you, Apple Watch is often the easiest and quickest way to use Siri. To check the score, close the garage or send a message, just raise your wrist and ask. It's that simple. Thanks to the powerful new Neural Engine, Siri requests are now processed on device, making them faster and more secure. This means that the most common requests like Siri, start an outdoor walk workout, no longer have to go to the cloud, so they can't be slowed down by a poor Wi-Fi or cellular connection. And because the Neural Engine can run a more advanced transformer model, dictation on Series 9 is up to 25% more accurate than on Series 8.

Secure on-device processing also enables a brand new feature, the ability to access your health data with Siri. So now you can ask, how much did I sleep last night? What's my average walking heart rate? Or how does my Move ring look today? And you can log health data, like your weight or period or that you've taken your medications with just your voice. Siri Health Queries will be available later this year in English and Mandarin, with more languages to follow.

Apple Watch is perfect for interacting with nearby objects like smart locks, gym equipment or payment terminals. At home or out in the world, your watch connects to all kinds of devices, making so many of the things you do easier. And with watchOS 10, you can use NameDrop to instantly share your contact information with another person's Apple Watch.

This year, Apple silicon enhances another one of our users' favorite nearby or faraway features, the ability to ping your iPhone. Series 9 has a new second-generation Ultra Wideband chip that enables precision finding for iPhones with the same chip. You'll see both the distance and direction to your iPhone, and once you get close, haptic and audible feedback guides you to its location, even if it's in a different room.

Ultra Wideband also brings new integration between Apple Watch and HomePod. When you get close to your HomePod, media suggestions will automatically appear at the top of the Smart Stack. So you can instantly fire up a playlist or a podcast. Or if audio is already playing, your watch will launch Now Playing to let you control it.

Series 9 features a big edge-to-edge, always-on Retina display that's even easier to read outdoors, because it now goes up to 2,000 nits, double the brightness of Series 8. The display is also better in very dark situations like a movie theater or early morning wake-up because it now goes down to just 1 nit. These features will be useful every time you put on your watch.

But that's not all, the powerful SiP also enables an incredible new capability. Back to Jeff to tell you about it.

Jeff Williams {BIO 16886071 <GO>}

Innovations on Apple Watch, like the Digital Crown and Taptic Engine, along with tap, swipe and double-click, make it simple and intuitive to use. Apple Watch is also controlled by gestures like wrist raise, which brightens the display to let you check the time, read notifications or see who is calling with a glance. You can even cover the display to silence alerts.

Today, we're adding something really cool. Series 9 enables an incredible new gesture that uses just your watch hand. It's especially convenient for those common situations when your other hand is occupied, like walking the dog or holding a cup of coffee. We think you'll use this all the time.

Introducing Double Tap. Just tap your index finger and thumb together twice. It's that easy. You can use Double Tap to answer a call. Let me show you. Hi, Deidre.

Deidre Caldbeck

Hey, Jeff.

Jeff Williams {BIO 16886071 <GO>}

This same gesture also works to end a call. See you later.

Deidre Caldbeck

Okay. Bye.

Jeff Williams {BIO 16886071 <GO>}

Double Tap controls the primary button in an app, so you can use it to stop a timer, play and pause music or snooze an alarm. A Double Tap will also launch the Smart Stack from your watch face. Double Tap again to scroll through the widgets, just like turning the Digital Crown.

This new gesture is enabled by the powerful Neural Engine in Series 9, which processes data from the accelerometer, gyroscope and optical heart sensor in a completely new way. It uses a machine learning algorithm to detect the unique signature of tiny movements and changes in blood flow when your hand and fingers perform a Double Tap.

Check out Double Tap in action.

(Audio/Video Presentation)

Double Tap makes interacting with your watch faster, easier and more convenient. It will be available next month, and we can't wait for you to start using it, because once you do, it will become one of those magical experiences you rely on every day.

Series 9 will be available in a gorgeous new pink aluminum case, plus starlight, silver, midnight, and (PRODUCT)RED, and stainless steel cases in gold, silver, and graphite.

Across these models, we've also been innovating in another important direction, towards our industry-leading environmental goals. We recently had the chance to share our progress with a special guest.

(Audio/Video Presentation)

As you can see, we've been working on some really big environmental initiatives and it's making a difference. To share more, here is Lisa.

Lisa Jackson {BIO 7568663 <GO>}

At Apple, our mission is to make products customers love and protect the planet at the same time. Three years ago, we made our corporate operations around the world carbon-neutral. It was the first step towards our most ambitious environmental commitment to-date, Apple 2030, our plan to be carbon-neutral across our entire business by the year 2030.

The next step is getting the carbon footprint of all of our products down to net zero. For Apple Watch Series 9, we challenged ourselves to significantly reduce greenhouse gas emissions from their three biggest sources: materials, electricity and transportation. Maximizing recycled and renewable materials in our products is key to Apple 2030 because they have a lower carbon impact than virgin materials. So we use 100% recycled aluminum in our watch cases, plus recycled gold, tin, copper, tungsten and more inside of Series 9. And for the first time, there is 100% recycled cobalt in the battery.

We also redesigned one of our most popular watch bands, the Sport Loop, to use more recycled material. It is now made with 82% recycled yarn, while maintaining the softness and comfort you love.

Electricity is the biggest source of carbon emissions. Since 2015, we've been investing in renewable energy, like this solar installation in Central California, while helping our suppliers do the same. And we're excited to announce that starting this year, all Apple Watch manufacturing is powered by 100% clean electricity.

Charging is another source of emissions. While it's a small amount per person across millions of watch wearers, it adds up. So we decided to do something about it. For Series 9, Apple will match 100% of your expected electricity use by investing in renewable energy projects around the world.

Finally, we looked at how Apple Watch gets from the factory to you. To cut emissions from transportation, we started by redesigning Series 9 packaging to be 100% fiber-based and more compact. It has a new smaller shape that lets us ship up to 25% more watches per trip. And more of those trips will be made with low-carbon shipping modes, like ocean freight, which emits just 1/20th of shipping by air.

Our efforts to reduce emissions from materials, electricity and transportation resulted in a whopping 78% decrease in the carbon footprint. The small amount of emissions that remain are offset by high-quality credits from projects like forests and wetlands that actively remove carbon from the atmosphere.

This last step brings the net carbon footprint of Apple Watch Series 9 down to zero, making it our first-ever carbon-neutral product. Any combination of aluminum Series 9 and new Sport Loop is carbon-neutral and has been certified by an independent third-party. To help you recognize it, you'll see this new logo on the box.

We are so excited about this achievement, and it's how we plan to get all Apple products to carbon-neutral by innovating across design, engineering and operations to steeply reduce emissions before applying high-quality carbon credits.

While Apple 2030 is the destination, the journey is important, too. So we looked for additional opportunities to make change. Leather is a popular material for accessories, but it has a significant carbon footprint, especially at Apple's scale. To reduce our impact, we will no longer use leather in any new Apple product, including watch bands, and that starts today.

Now back to Jeff to tell you more.

Jeff Williams {BIO 16886071 <GO>}

We've developed a beautiful, luxurious and durable new textile that we're calling FineWoven. It's made of 68% post-consumer recycled content, which has a significantly lower carbon footprint than leather. FineWoven gives the new Magnetic Link a subtle luster and suede-like feel and it looks great on the Modern Buckle, too. Both bands will be available in new colors and offer a sophisticated look for any special occasion.

We also explored more environmentally-friendly materials with our partners. This year, we collaborated with Hermes on four new styles that draw on their long history in textiles. There are two elegant woven bands, our first-ever knitted band, and another in sporty molded rubber, and all come in a range of rich colors. Hermes Radial, a modern take on their classic watch face complements these innovative new styles.

We also worked with Nike to design new bands that repurpose excess materials and waste, reducing the use of virgin material. The new Nike Sport Band includes colorful flakes of recycled material. They create a randomized pattern that makes each band

unique. For the Nike Sport Loop, we repurposed yarn from previous seasons to make the same soft material with a fun new space-dye look. Both bands come in a range of dynamic colors.

And there's a new Nike watch face that shows each passing second on the lines of the globe, and that's the new Apple Watch Series 9. It features a magical new way to control your watch with Double Tap, faster on-device Siri that lets you securely access health data, precision finding for iPhone, and a brighter display, all enabled by the S9 SiP, our most powerful chip ever in Apple Watch. And it's Apple's first-ever carbon-neutral product.

Now let's talk about Apple Watch Ultra. Ultra is the most advanced Apple Watch, and it's perfect for anyone who wants the biggest display and longest battery life with a stunning design. Over the last year, Ultra has helped people accomplish extraordinary feats, like summiting the tallest mountains, completing demanding endurance races and diving the world's oceans.

Ultra is a precision tool designed to go farther, higher and deeper than any Apple Watch has before. And we've made our most rugged and capable Apple Watch even better. Today, we're introducing Apple Watch Ultra 2, with incredible new features that elevate any adventure. And here's Daniela to tell you all about it.

Daniela Deschamps

Ultra 2 gets the powerful new S9 SiP. That means you can use the new Double Tap gesture anytime your hands are full, set a waypoint using just your voice with the new on-device Siri, even when you have no connectivity, and precision finding with the second-generation Ultra Wideband chip helps you easily find your iPhone when you can't remember where it's stowed.

Ultra 2 also has a new advanced display architecture that pushes the brightness to a massive 3,000 nits. It's the brightest display Apple has ever created and makes Ultra 2 more readable in the harshest sunlight. To take advantage of this incredible display, we created an exclusive new watch face called Modular Ultra. It's the first to use the outermost edge of the display to show real-time data like altitude, depth or the passing seconds. Modular Ultra can be customized to provide the most information at a glance of any digital watch face we have ever made. And now night mode uses the ambient light sensor to activate automatically in the dark.

Day or night, Ultra has so much to offer. And for runners, it's the perfect choice, with advanced metrics, a big, brighter display, a customizable action button and precision dual-frequency GPS. And this year, watchOS 10 takes cycling to the next level, allowing you to connect Bluetooth accessories to measure cadence, speed and power. Apple Watch also helps you get the most out of your training with Power Zones. And if you start a cycling workout on your watch, it automatically shows up as a live activity on your iPhone. Ultra 2 is designed for extremes and has been tested across the largest range of altitudes for any Apple product, from the lowest valleys to the highest peaks.

Ultra is also great for your underwater adventures. The Depth app now saves a log of each session, so you can review your dives right on Ultra and in the Fitness app on iPhone. From Alpine peaks to deep water to the open road, we can't wait to see where you take Ultra 2.

Now back to Jeff.

Jeff Williams {BIO 16886071 <GO>}

Even with all these new capabilities, Ultra 2 still gets the same great battery life, up to 36 hours of typical use on a single charge and up to 72 hours in low-power mode. With Ultra 2, we are also continuing our commitment to the environment. In just one year, we significantly increased the amount of recycled content in the case, going from all-virgin titanium to 95% recycled.

This dramatic improvement in material, along with our work in clean electricity and transportation allowed us to meet our ambitious carbon reduction targets, making any Ultra 2 paired with an Alpine Loop or Trail Loop carbon-neutral. And this year, the Trail Loop and Alpine Loop and the Ocean Band come in a range of beautiful new colors.

And that's the new Apple Watch Ultra 2. It comes with all the features users love about Ultra, plus the powerful S9 SiP, Apple's brightest display ever, an expanded altitude range, on-device Siri and a brand-new gesture for easy control of your watch. These innovations and the advancements in watchOS 10 make our most rugged and capable watch even better.

Ultra 2 joins Series 9 in the lineup, along with the popular second-generation Apple Watch SE. And we're excited to announce that SE is also carbon-neutral when paired with a Sport Loop, which means this fall, customers can buy a carbon-neutral model of any new Apple Watch. The Apple Watch SE starts at just \$249; the new Series 9 starts at \$399; and Apple Watch Ultra 2 is \$799. You can order the new Apple Watch models starting today, and they will be available on September 22.

Now back to Tim.

Tim Cook {BIO 14014370 <GO>}

I love the new Apple Watch Series 9 and Apple Watch Ultra 2. With incredible new capabilities, they're the most technically-advanced watches we've ever created. And I'm really proud of the Apple Watch team for delivering our first carbon-neutral product 7 years ahead of our company-wide 2030 goal.

Now let's talk about iPhone. Since the very first iPhone, we focused on giving our users a device that's incredibly powerful, remarkably easy-to-use and beautifully designed. Every year, we've built on this foundation to create experiences that make

a real difference in our users' daily lives. Today, we're pushing what users love about iPhone even further, and I'd like to show it to you now.

(Audio/Video Presentation)

iPhone 15 is absolutely incredible. To tell you all about it, here's Kaiann.

Kaiann Drance

iPhone 15 has an all-new design that's simply gorgeous. Starting from the front, it has the Dynamic Island, which has been a hit with our Pro users. The Dynamic Island fluidly expands and adapts to your alerts and live activities, creating an experience that's so intuitive, it feels magical. Now even more users can easily control their music or see the next direction in Maps.

Our amazing community of developers have made the Dynamic Island even more useful by expanding what it can do. Now you can track a pizza delivery and follow the big game at the same time. When you're catching a flight, you can see which gate you're leaving from and how long until boarding time. It's more helpful than ever.

And the Dynamic Island looks fantastic on the Super Retina XDR display, which uses OLED technology. It provides an exceptional viewing experience with thinner borders, rich color, and support for Dolby Vision. And now it's even brighter. Peak HDR brightness reaches 1,600 nits, so HDR photos and videos will look better than ever. When it's sunny, peak brightness can now go up to 2,000 nits, twice as bright as iPhone 14.

It comes in two sizes, 6.1 inches for iPhone 15, and 6.7 inches for iPhone 15 Plus. The larger display of iPhone 15 Plus gives you more space for text when you're reading the latest article, post or message. And the bigger display is perfect when you choose larger texts. Both sizes feel even nicer in your hand due to a new contoured edge on the aerospace-grade aluminum enclosure.

For the first time ever in a smartphone, iPhone 15 has color embedded throughout a single piece of durable color-infused glass. We use metallic ions to build color into the foundation of the material itself, precisely controlling the saturation to create five stunning colors, pink, yellow, green, blue and black. To provide the durability our users depend on, we optimized our custom dual-ion exchange process for this new material and polished it with nanocrystalline particles. Then it's etched to create a textured matte finish that feels incredible.

iPhone 15 has ceramic shield, tougher than any smartphone glass, and water and dust resistance, so it's built to last. And iPhone holds its value longer than any other smartphone. This is good for our users and good for the environment since it helps conserve finite natural resources.

Another key part of reaching our goal of carbon-neutral products by 2030 is maximizing our use of recycled content. As you heard from Lisa earlier, the enclosure uses 75% recycled aluminum. For the first time, we're using 100% recycled cobalt in the battery and 100% recycled copper foil in the main logic board and MagSafe charger.

iPhone 15 has an entirely new advanced camera system. It is designed to help our users take fantastic photos of everyday moments in their lives. We're always looking for ways to make it easier for everyone to take gorgeous photos. So we're bringing an amazing 48-megapixel Main camera to iPhone 15. It's built for shooting sharp photos and videos every day with a quad-pixel sensor and 100% Focus Pixels for fast autofocus. This 48-megapixel camera opens up some exciting capabilities.

Say you're outside on a bright sunny day, you can maximize resolution with a 48-megapixel photo, like this majestic landscape, which captures the fine details of the mountains, the rolling hills and even the individual shingles on the houses.

Of course, most of the time, it's best to balance detail and light capture, so we use computational photography to take the Main camera to the next level. The sensor groups every four pixels together into a larger 2-micron pixel for fantastic light capture. Then Photonic Engine takes the image that's been optimized for light capture and combines it with a super-high-resolution image for rich details. The result is a 24-megapixel photo, with incredible image quality and double the resolution. It perfectly balances light and detail, and has a practical file size that's great for storing and sharing.

And with all these pixels, we can do more than increase the resolution. Using the middle 12 megapixels of the sensor, we enabled a new 2x Telephoto option for capturing photos and 4k video with optical quality. It's like having a third camera. It helps you feel closer to the scene and because it's enabled by the Main camera, it has the same F/1.6 aperture and sensor-shift optical image stabilization, which helps you take fantastic photos even in low-light. You can zoom out to capture the whole scene or zoom in for the perfect close up, all with optical quality. When you're shooting videos, the 2x Telephoto also has continuous zoom, so you can frame the scene like here, in 4K cinematic mode. It helps you feel closer to your subject, so it's perfect for portraits, which are getting even better.

To tell you more, here's Maryam.

Maryam Azimi Hashemi {BIO 20601630 <GO>}

This year, we're introducing the next-generation of portraits on iPhone. Now it's even easier to get stunning portraits of your friends and family. Portraits will get richer color and great low-light performance, like this one. It's full of vivid color and detail, and it uses a rich depth map to create a beautiful bokeh effect.

In this portrait of a very good dog asking for a treat, iPhone cut the perfect moment with zero shutter lag. A split second later and it just wouldn't be the same. And it's

easier to take your portrait because now you don't have to remember to switch to portrait mode. Using machine learning, we can detect when there's a person in the frame and capture rich depth information automatically. So you can turn it into a stunning portrait right away or later on in the Photos app. It even works with dogs and cats, so you can have more portraits in your pet's album in iOS 17 automatically.

And with a rich depth map, we're introducing focus and depth control for a whole new level of creative control. Take this super-high-resolution portrait. Now you can switch the focus from one subject to another after the photo has been taken. It gives you so many more options with your photos and less to think about in the moment.

When it's dark, night mode is getting better, too, like in this photo, which was taken outside. It has sharp details and vibrant colors, so it beautifully captures the texture of your skin, individual strands of hair, and even the shadows of leaves on his shirt. When lighting is bright or uneven, the latest Smart HDR captures both the sky and your subject with vivid colors and even more true-to-life rendering of skin tones.

Look at this colorful selfie shot on the TrueDepth front camera. It uses our new Smart HDR to beautifully capture the deep shades of purple in her shirt and the bright red of the chair behind her. When you're looking at HDR photos in the Photos app, they'll have brighter highlights with richer mid-tones, so you can really see the rich shades of her dress and how the light hits her cheek just the way it was in real life.

By combining advanced computational photography with the 48-megapixel Main camera, Ultra Wide camera and TrueDepth front camera, iPhone 15 makes it easy to take great-looking photos and videos every day. And it's all powered by Apple silicon.

Back to Kaiann.

Kaiann Drance

To deliver all of these advanced features, iPhone 15 has an incredible chip, A16 Bionic. It was introduced on iPhone 14 Pro, and it's proven how powerful, fast and efficient it is. The custom image signal processor enables the advanced camera system, so you can capture fantastic high-resolution photos and videos.

The 16-core Neural Engine handles everything from computational photography to live voicemail transcriptions on-device in order to protect your privacy. The 5-core GPU has 50% more memory bandwidth than A15 Bionic, so it's even better for graphics-intensive games. And the 6-core CPU has 2 high-performance cores, which are faster and use 20% less power than A15 Bionic. The 4 high-efficiency cores can handle most daily tasks, so even with all of the new features, iPhone 15 still has all-day battery life. And iPhone 15 Plus has a bigger battery that lasts even longer for those days when you forget to charge or just want to spend more time gaming, browsing the web or on FaceTime with your friends.

Now let's talk about connectivity. iPhone 15 uses powerful wired and wireless technologies. To tell you about the exciting new wireless features coming to iPhone 15, here's Deniz.

Deniz Teoman

iPhone uses wireless technologies to make everyday activities easier, like streaming videos with AirPlay or easily sharing contact information with NameDrop using near-field communication. iPhone was the first smartphone with Ultra Wideband, which is great for identifying where your keys are hiding in the couch.

Ultra Wideband is getting even better this year, because just like Apple Watch, iPhone 15 has our cutting-edge second-generation Ultra Wideband chip. So iPhone 15 can connect to other devices with this chip from up to 3x farther away.

This chip also opens up a completely new way to use precision finding on iPhone 15 to find your friends. When you're in a crowded place, like a train station or a farmer's market and your friend share their location, you'll be guided right to them with clear directions and distance. It's built into Find My, so it has all the same privacy protections that users have come to trust.

Of course, sometimes a phone call is the best way to reach someone. iPhone already has fantastic 5G performance. And now, audio quality on phone calls is getting better, too, because iPhone 15 uses a more advanced machine learning model that automatically prioritizes your voice. If you prefer to filter out even more distracting background noise, just select Voice Isolation, and you'll come through loud and clear.

(Audio/Video Presentation)

It's a feature you can use every day.

Sometimes a call can't go through because you are off the grid. When you need help in an emergency, iPhone introduced a breakthrough new service, Emergency SOS via satellite. It's having an extraordinary impact, including helping first responders rescue people after accidents and natural disasters. And users have let their loved ones know that they're safe by updating their location with Find My via satellite, in places from the Shetland Islands in Scotland to Mount Wellington in Tasmania. Emergency SOS and Find My via satellite have expanded to 14 countries on 3 continents, and they're coming to Spain and Switzerland this month.

Emergency SOS was built for serious emergencies that require a first responder. But say, you have car trouble and no cellular or Wi-Fi service. For those times, we're introducing Roadside Assistance via satellite. It's built on the same advanced technology as our existing satellite service, and it's so easy to use. Just text Roadside Assistance and select what kind of help you need. Then, the intuitive interface will guide you to connect to a satellite and share that information with a Roadside

Assistance provider. They'll message you directly and dispatch help to your exact location with the right equipment to get you moving. It's launching in the U.S. with AAA, the country's largest Roadside Assistance provider. Roadside service is covered by AAA membership and is also available separately for non-members. This is yet another way that iPhone is essential in our lives.

Now back to Kaiann.

Kaiann Drance

We're thrilled to include access to these satellite services free for two years with iPhone 15. These best-in-class wireless capabilities keep you connected when you're on the go.

Now let's talk about iPhone's wired capabilities. The connector is used for charging, syncing data or connecting to accessories. USB-C has become a universally-accepted standard. So we're bringing USB-C to iPhone 15. It enables charging, transferring data, playing audio and video, and it's been built into Apple products for years. Now the same cable can charge Mac, iPad, iPhone, and even AirPods Pro second-generation, which is updated with a USB-C connector. If your AirPods are low on power, you can charge them or even an Apple Watch right from your iPhone. We're also bringing USB-C to EarPods, so they can work with iPhone 15 seamlessly.

And for an easy wireless connection to chargers and other accessories, iPhone 15 has MagSafe, which uses magnets with 100% recycled rare earth elements. These magnets ensure perfect alignment of MagSafe or Qi2 chargers as well as other accessories, like our beautiful cases and wallets. Millions of people use these MagSafe accessories. And just like our watch bands, this gives us another opportunity for positive environmental impact by eliminating leather and introducing stunning new FineWoven accessories that significantly reduce carbon emissions compared to leather. These soft and durable FineWoven cases also join our Silicon and Clear case, all designed to perfectly complement iPhone 15.

So that's iPhone 15. It has so many innovations that you can use every day, like the Dynamic Island, a 48-megapixel Main camera that provides a 2x Telephoto and A16 Bionic. And it has capabilities that no other smartphone has, like the ability to get emergency and roadside assistance when you're off the grid, all built into a durable, color-infused design.

And with all of these fantastic features, iPhone 15 is ready wherever the day takes you.

(Audio/Video Presentation)

iPhone 15 and iPhone 15 Plus are a huge leap forward. They're full of new industry-leading capabilities. They still start at just \$799 for iPhone 15 and \$899 for iPhone 15 Plus with carrier activation. We also have excellent offers from Apple and our

partners, including up to \$800 off in the U.S. when you trade in an iPhone 11 or newer. And at Apple, you'll find the latest carrier offers, so you can buy and activate your new iPhone on the network you want, in our stores and online.

And now, back to Tim.

Tim Cook {BIO 14014370 <GO>}

iPhone 15 and iPhone 15 Plus are truly incredible, with new capabilities that will make a real difference in our users' lives. Their unique combination of powerful technology, ease-of-use and thoughtful design, make them indispensable. And we're not done yet. Our Pro models represent the very best of Apple innovations, advancing features across design, camera, performance and more.

The next-generation Pro pushes each of these further in ways only Apple can, and I'd like to introduce it to you now.

(Audio/Video Presentation)

For a closer look at iPhone 15 Pro, the most Pro iPhone we've ever created, here's Joz.

Greg Joz Joswiak {BIO 3260601 <GO>}

iPhone 15 Pro is packed with industry-first innovations and features our users are going to love. Powered by our most advanced Apple silicon yet, it delivers the most incredible photos and videos. And we are thrilled to introduce our astonishing new titanium design.

This is the most premium material we've ever used in an iPhone enclosure. Titanium is incredibly strong and durable. Yet at the same time, it is much lighter, making these our lightest Pro models ever. You'll feel it as soon as you pick it up. Titanium is just beautiful. It feels fantastic with the new contoured edges, and we are also introducing the thinnest borders ever on an iPhone. This enabled us to reduce iPhone dimensions without affecting the display size. So together with the lighter weight and new edges, iPhone 15 Pro is a delight to hold in your hand.

In addition to the strength of titanium, iPhone 15 Pro has the toughest glass-based materials in the industry, including the Ceramic Shield front, which is only available on iPhone. And there are two great display sizes to choose from: 6.1 inches for iPhone 15 Pro and 6.7 inches for iPhone 15 Pro Max.

Now to tell you more about this incredible titanium design, here's Isabel.

Isabel Yang {BIO 20670356 <GO>}

Every material we choose for iPhone is meticulously considered. For iPhone 15 Pro, we re-evaluated every structural component, inside and out, optimizing our alloy selection and creating a breakthrough innovation in manufacturing and materials design. The new enclosure uses Grade 5 titanium, an alloy that has even higher tensile strength than pure titanium. It's typically reserved for applications where the balance of strength, formability, as well as weight are especially critical. In fact, this is the same alloy used on the Mars rover.

Titanium has one of the highest strength-to-weight ratios of any metal, providing incredible durability for iPhone, while enabling a much lighter design in comparison to stainless steel. The titanium encases a new aluminum substructure that is bonded using solid-state diffusion. This is an industry-first innovation, using a new thermomechanical process that joins these two metals with incredible high strength. Using aluminum on the inside creates synergistic properties with the titanium enclosure, helping with thermal dissipation and further weight reduction.

Titanium also introduces a new refined brush texture, enabled by a unique multi-step process that includes precision machining, sanding, brushing and blasting. And while anodizing is commonly used on titanium, we chose to use a PVD-coating as added protection while introducing color. These Apple-designed coatings are engineered with nanometer precision, and take up to 14 hours to complete, resulting in 4 gorgeous finishes. Black Titanium and White Titanium beautifully harmonize with the back glass. Blue Titanium highlights the material's elegance, and Natural Titanium celebrates its raw metallic nature.

There is also a new internal chassis architecture that makes iPhone more repairable, thanks to a new structural frame that allows the back glass to be easily replaced. The entire aluminum substructure is made with 100% recycled aluminum, a first for iPhone, contributing to the overall increase in recycled materials as we work toward our 2030 goals.

Now back to Joz.

Greg Joz Joswiak {BIO 3260601 <GO>}

There's another design change for iPhone 15 Pro that we're really excited about. From the very first iPhone, we've had the Ring/Silent switch, a quick and easy way to mute iPhone sounds. We wanted to make this even better. So with iPhone 15 Pro, we are reinventing the experience with a customizable action button.

By default, it's still a simple Ring/Silent switch. To toggle between ring and silent, you simply press and hold the button to confirm your intent. You also feel a distinctive haptic feedback for each state. And you can choose from a set of actions and easily switch between them.

For example, with a simple press, you can start Voice Memos to quickly record a new idea or launch camera to capture that important moment, activate a favorite accessibility feature like Live Speech, or you can use shortcuts to open up an even

wider set of options from simply launching your favorite app to running your own custom shortcuts.

The action button delivers even more convenience and versatility to the iPhone experience. And every interaction gives you visual feedback with the Dynamic Island on the advanced Pro display of iPhone 15 Pro.

In addition to the innovative Dynamic Island, the Super Retina XDR display also provides the smooth performance of ProMotion, the brightness and color of Extreme Dynamic Range, and the convenience of the Always-On Display.

And with iOS 17, we're introducing StandBy, a new full-screen experience activated by turning your iPhone on its side while it's charging. With the Always-On Display of iPhone 15 Pro, StandBy stays on persistently to show you useful information, perfect on a nightstand, kitchen counter, or desk. You can choose a simple digital clock or customize your view with multiple widgets.

iPhone 15 Pro also includes a huge advancement in performance. We are excited to introduce next-level performance and more Pro capabilities than ever with the A17 Pro.

For more on how this marks the beginning of a new chapter in iPhone performance, here's Sri.

Sribalan Santhanam

The A-series chip powers every experience on iPhone. For iPhone 15 Pro, we developed a new generation of Apple silicon, that is a major step forward with changes throughout the entire chip, including a breakthrough new GPU. At the foundation of this new chip is the transistor technology, and this is the industry's first 3-nanometer chip. These 3-nanometer transistors are patterned using state-of-the-art extreme ultraviolet lithography. Elements of these transistors are just over 12 silicon atoms-wide. A17 Pro features 19 billion of these transistors. And we use all of them to improve the performance, efficiency and features of our new chip.

The new CPU features micro-architectural and design improvements for both our performance cores and efficiency cores. Our performance cores are now up to 10% faster, continuing to deliver the fastest single-threaded performance in any smartphone, challenging even high-end desktop PCs. Our efficiency cores are also faster and remain unmatched in the industry, delivering 3x the performance per watt of the competition. These are critical to iPhone, as your most typical tasks run on these cores.

The Neural Engine is now up to twice as fast for machine learning models, allowing it to process up to 35 trillion operations per second. The Neural Engine uses machine learning on device without sending your personal data to the cloud, powering

features like typing more accurately with autocorrect, lifting a subject from a photo background, or creating a personal voice for users at risk of speech loss.

A17 Pro has dedicated engines that enable Pro features. Those include the ProRes codec, and a display engine that powers ProMotion and the Always-On display. We also included a dedicated AV1 decoder, enabling more efficient and high-quality video experiences for streaming services.

iPhone 15 Pro also has the new USB-C connector, but for our Pro models, we included a new USB controller in A17 Pro, that enables new workflows not possible before. This is the first iPhone with USB 3 speeds up to 10 gigabits per second. Using an optional USB 3 cable, that's up to 20x faster than USB 2, enabling much higher transfer speeds.

The groundbreaking innovation of A17 Pro is a brand-new GPU, with a new Apple-designed shader architecture, our biggest redesign in the history of Apple GPUs. This is a Pro-class GPU that expands what's possible on iPhone even more.

We focused on three things: improving performance and efficiency; running complex applications; and adding new rendering features. The new GPU is now a 6-core design, which is up to 20% faster for peak performance. And we also focused on energy efficiency, that helps with sustained performance for games. We've added brand new features to the GPU, like mesh shading, which lets games create detailed environments while drawing less power.

And for the first time, we have hardware-accelerated ray tracing, featuring the fastest ray tracing performance in any smartphone. Here's a scene without ray tracing that instead uses cube maps to approximate the reflections on surfaces. The light reflecting in the scene is less accurate and thus, less realistic. Now here's a scene with ray traced reflections, more accurately representing the behavior of light and reflections of the environment.

With hardware-accelerated ray tracing, A17 Pro can run these graphics smoothly at much higher frame rates than with software-based ray tracing. It's a more immersive experience for games and AR applications.

A17 Pro is more energy-efficient, and can run up to 4x faster when compared with software-based ray tracing on A16 Bionic. Gaming is further improved with new software features, including MetalFX upscaling, which combines the performance of the GPU and Neural Engine to enable high-quality graphics, while using much less power.

With the fastest chip ever on any smartphone, we are excited for iPhone 15 Pro to change mobile gaming. Back to Joz to tell you more.

Greg Joz Joswiak {BIO 3260601 <GO>}

iPhone is the best mobile gaming platform in the world. iPhone is powered by high-performance and power-efficient Apple silicon, features advanced HDR displays, supports variable refresh rates, and is compatible with the most advanced game controllers. The App Store and Apple Arcade have revolutionized game distribution, and iPhone and iOS have a fantastic game developer community. A17 Pro takes this incredible platform even further, laying the foundation for a new generation of mobile gaming.

Some of the world's best game developers are taking advantage of this new level of performance. Here's a taste of what's possible on iPhone 15 Pro.

Fabrice Navrez

Welcome to New York City in The Division Resurgence. The A17 Pro allows us to push the quality of the game with improved resolution, more dynamic lightings, and even more fire and weather effects, making the game more real.

Fish Ling

Thanks to the chip updates, we have been able to develop high-quality water features that means more realistic waves and reflections. On the new iPhone 15 Pro, Honkai: Star Rail has never looked better.

Meng Wang {BIO 21763382 <GO>}

(Foreign Language)

Tsuyoshi Kanda

But that's not all. Games like Resident Evil Village and Resident Evil 4, once only available on consoles, can now be played on iPhone, thanks to A17 Pro. This is the future of mobile gaming, all thanks to the power of iPhone 15 Pro.

Greg Joz Joswiak {BIO 3260601 <GO>}

Wow, it's amazing to think those games are running on a device that fits in your pocket. We're excited that The Division Resurgence is launching on iPhone in early 2024. And this new level of performance will enable new games for iPhone 15 Pro that were previously only available on game consoles, PCs or the Mac, like Capcom's Resident Evil Village and the remake of Resident Evil 4, both launching later this year.

And Ubisoft will bring Mirage, the latest installment of the Assassin's Creed franchise, to iPhone 15 Pro in early 2024. This is the first time the console version of Assassin's Creed will be natively available on a smartphone.

Now let's talk about the camera. The Pro camera system is a big reason why users choose our Pro models. Built on a powerful foundation of hardware and software, it captures the most amazing photos and videos, with the incredible versatility of

multiple lenses; iPhone 15 Pro has our best camera system yet. Users will get even better photos and videos, powerful new features, and the equivalent of seven camera lenses in their pocket.

To tell you how we achieved this, here's Misha.

Misha Sceanovic

Last year, we introduced our innovative 48-megapixel camera, which users love for their beautiful, high-resolution photos; iPhone 15 Pro features a more advanced 48-megapixel Main camera, with an even larger sensor than iPhone 15. The camera includes a new nanoscale coating to reduce lens flare, brings high resolution to everyday photos, enables more focal lengths, and has better low-light performance for portraits and night mode. When using all pixels of the quad-pixel sensor, the Main camera can capture unbelievable detail like every little scale on this lizard.

In addition to 48-megapixel ProRAW, users can now shoot in 48-megapixel HEIF with 4x more resolution than before. And with the power of our computational photography, we have the new super-high-resolution default for the Main camera. 24-megapixel photos merge the best of low-light and detail together. As you can see here in the beautiful color of her eyes, the sharpness on the edges of her clothes and the artistic reflection on the table.

Since the new Photonic Engine now uses a 48-megapixel image, iPhone can shoot higher resolution photos in 24, 28, and 35-millimeter focal length, a very important range for Pro photographers. They can now quickly switch between these new options and even choose a new default lens, customizing their camera experience to their creative needs.

iPhone 15 Pro also gets next-generation portraits with focus and depth control, with 2x better low-light performance, as you can see here in this beautiful shot. The smallest details of her expression are incredibly clear and contrasted with a dimly-lit yet detailed background. You can really feel her emotion.

In this photo, night mode is unbelievable. Now powered by the Photonic Engine, we can capture more color and details than ever, from the warmth of her lipstick to the creases of her white dress. Enabled by the LiDAR Scanner, night mode portraits also look stunning on iPhone 15 Pro. In this shot, we captured the intricate fabric of his sweater together with a beautiful bokeh of the lights in the background. And our latest Smart HDR delivers even more true-to-life photos with greater dynamic range, as you can see here with the beautiful lighting on her face and the sun reflecting on her hair, all while preserving the blue of the sky.

Now let's talk about our zoom range. iPhone 15 Pro features a great 3X Telephoto camera at 77-millimeter focal length, ideal for classic portraiture. For iPhone 15 Pro Max, we're using the extra size of the larger iPhone to introduce something unique, our longest optical zoom yet, 5X optical zoom at 120-millimeter focal length. We designed a state-of-the-art Telephoto camera. Compared to iPhone 14 Pro Max, it has

a 25% larger sensor, 100% Focus Pixels and an F/2.8 aperture, the largest of any smartphone at this optical range.

120-millimeter is a very useful focal length, great for close-ups, wildlife photos, and getting closer to the sports action. 120-millimeter lenses are typically long. So instead, we created an innovative tetraprism design built right into iPhone. The light rays are reflected 4x through the glass structure, allowing the light to travel for longer in a much smaller design. This creates enough separation between the lens and the sensor to enable the longer focal length.

And we have our most advanced stabilization yet, a combined OIS and autofocus 3D sensor-shift module, that moves in all three directions, a first for any smartphone. This was critical to support the tetraprism design. It provides even better stabilization with up to 10,000 micro adjustments per second. That's twice as many as iPhone 14 Pro. This longer focal length gives Pro users a brand new creative option, and we can't wait to see the incredible photos they will take.

The Ultra Wide camera is also improved with a new anti-reflective coating, better night mode, and the latest Smart HDR, in addition to enabling one of our users' favorite features on the Pro models, Macro photography. Macro is one of the seven lenses of the new Pro camera system, with a 10x optical zoom range going from 13-millimeter to 120-millimeter focal length, making iPhone 15 Pro Max more powerful and more versatile than ever.

Now back to Joz.

Greg Joz Joswiak {BIO 3260601 <GO>}

iPhone 15 Pro will enable great workflows for photographers and filmmakers that previously weren't possible. Using a USB 3 cable with iPhone 15 Pro enables incredibly-fast transfer speeds. So it's much faster to transfer your large ProRAW photos or ProRes videos to your Mac. And now you can use your iPhone with Capture One to shoot and instantly transfer 48-megapixel ProRAW directly to a Mac, easily creating a Pro Studio suited for today's fast-paced needs.

iPhone 15 Pro also supports recording ProRes video directly to an external storage drive. Video productions can quickly swap drives and keep iPhone as the Main camera on set. Recording to an external drive enables even higher-quality recording options, pushing ProRes 4K up to 60 frames per second for the first time. A great option for filmmakers to create cinematic slow motion.

We are also introducing Log encoding to make ProRes even more powerful for our Pro users, enabling more range and flexibility for visual effects and color grading in post-production. With Log encoding, iPhone 15 Pro will be the first smartphone in the world to support the Academy Color Encoding System, or ACES, a global standard for color workflows, making it easier for filmmakers to use iPhone in their production.

The iPhone 15 Pro camera system pushes the limits of what you can capture with a smartphone. The precious memories you capture on iPhone look incredible when viewing with Apple Vision Pro. Photos and videos look lifelike, and panoramas expand to create an immersive experience that wraps around you.

And there is one more unique feature we've created just for the world of spatial computing. With iPhone 15 Pro, you can now capture spatial videos. We use the Ultra Wide and Main cameras together to create a three-dimensional video. You can then relive these memories in a magical way on Apple Vision Pro.

This is really important, as your iPhone is with you all the time, so you won't ever miss capturing a special moment using spatial video, like your family's beach vacation. Spatial video lets you feel like you're right back to that moment in time.

You can also share these spatial videos with anyone with an Apple Vision Pro, so they could feel like they were there too. Capturing spatial video will be available later this year.

So this is the iPhone 15 Pro, our best and most Pro iPhone ever, with a new, beautiful, strong, and lighter titanium design as well as next level performance from the A17 Pro, a convenient and customizable action button, and our most Pro camera system for our best photos and videos ever, including next-generation portraits and our longest optical zoom on iPhone 15 Pro Max, all while still providing great all-day battery life.

The iPhone 15 Pro will start at the same price as last year, \$999. An iPhone 15 Pro Max, featuring the new 5x Telephoto camera, will start at \$1,199, with 256 gigabytes of storage, which also matches last year's price with this level of storage. We also have incredible offers from Apple and our carrier partners, including up to \$1,000 off in the U.S. when you trade in an iPhone 11 Pro or newer. All new iPhone models will be available for pre-order this Friday, September 15. And they'll be available in stores next week on September 22.

And starting next week, iCloud Plus is adding two new plans, 6 and 12 terabytes, for even more room to keep your photos and videos safe. iCloud Plus also has great features that allow you to easily share your photos, automatically backup your iPhone, and so much more. And of course, with Family Sharing, everyone in your household can get all the benefits of iCloud Plus.

This is by far our best iPhone lineup ever, with Dynamic Island across the iPhone 15 lineup, incredible new camera systems and powerful features that you'll use throughout the day. And the iPhone lineup starts at just \$429 with iPhone SE.

Now back to Tim.

Tim Cook {BIO 14014370 <GO>}

Thank you, Joz. Thanks to all of our presenters, and thanks to everyone who worked on these amazing products that are so indispensable in our daily lives. Apple Watch Series 9, with our most powerful chip ever in Apple Watch, a brighter display, and a convenient new way to interact with your watch. And it's our first carbon-neutral product.

Apple Watch Ultra 2, our most rugged and even more capable watch, now featuring Apple's brightest display ever. iPhone 15 and iPhone 15 Plus, now with Dynamic Island, an incredible camera system featuring a 48-megapixel Main camera and the power of A16 Bionic in a gorgeous new design. And iPhone 15 Pro, in titanium, for a durable, light and stunning finish.

With the new A17 Pro, the fastest chip ever in a smartphone, a customizable action button, and our most Pro camera system yet, featuring a 5X Telephoto camera. These are the best and most capable iPhones we've ever made.

At Apple, we strive to create innovative products and best-in-class experiences that help us do the things that matter most in our lives. Apple Watch and iPhone are essential. They're with us all the time, and we use them throughout the day, which is why we're so excited for you to begin using these incredible new devices.

Thank you for joining us. Have a great day.

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