Welcome to Spotlight. I'm Liz Waid. And I'm Joshua Leo. Spotlight uses a special English method of broadcasting. It is easier for people to understand no matter where in the world they live. Today's Spotlight is on fireworks. Above you. Around you. To the side. Fire and loud booming sounds surround you. Looking up, you see shapes, like flowers, falling from the sky in a shower of light. People all around you are cheering and laughing. It is a fireworks show. People all over the world enjoy these amazing light shows for many different reasons. No one knows exactly how fireworks were invented. But most experts agree that the inventor came from China. More than 2,000 years ago, Chinese people began to use green bamboo in religious celebrations. This fast growing tree traps air inside it. People threw pieces of green bamboo onto a fire. When the bamboo burned, it exploded with a loud sound. People believed that the loud sound made evil spirits afraid. Soon, people used green bamboo in marriage celebrations and other happy events. But soon, something new would take the place of green bamboo. Inventors discovered gunpowder. Gunpowder was a mixture of three substances: potassium nitrate, sulfur and charcoal. When these three things mixed together, they exploded with a bright light and a big sound. And gunpowder was much louder than the simple bamboo. Soon, it replaced bamboo in celebrations. Over time, this technology spread to other parts of the world too. Fireworks were popular in every place they went. Countries used them in many celebrations, military victories, religious festivals and the crowning of kings and queens. Today, people use fireworks for many of the same reasons. In the past, people made fireworks simply by wrapping gun powder in paper and lighting it on fire. But today, making fireworks has become a real science. Now, it takes more work! The experts who make fireworks are called pyrotechnicians. First, pyrotechnicians mix gun powder with different chemicals. The chemicals create the different colours. For example, sodium creates the colour yellow. Copper creates the colour blue. Barium makes green. And aluminium makes white. Adding charcoal gives the firework a fiery tail as it flies into the air. Pyrotechnicians make small balls of this chemical and gunpowder mixture. The balls are called "stars". Then, the stars go into shells. But these shells do not come from the ocean! The shell is a paper container. The shape of the container makes the shape of the firework. For example, a round shell will make a firework that looks like a circle. A large shell can hold up to 100 stars. There is also an extra amount of gunpowder at the bottom of the shell. The pyrotechnician then adds a fuse to the bottom of the shell. In simple fireworks, the fuse is like a small, thin piece of rope. To light the firework, the pyrotechnician lights the fuse on fire. The fire travels up the fuse until it reaches the shell and then... The gunpowder launches the shell high into the air. Then, when the fire reaches the stars in the centre of the shell, the firework explodes. It creates a wonderful show! And one thing is for sure, people everywhere love a fireworks show. Many countries use fireworks to celebrate national holidays. In the United States, Independence Day is celebrated on July 4. And almost every community creates a fireworks show. It is a tradition for many families to go see the show. This has been true since 1777, the second Independence Day! In Britain, people use fireworks to celebrate something different. On November 5, 1605, a group of men planned to bomb the British Houses of Parliament. The bomb did not explode, and the men were caught. Today, on November 5, people celebrate the failure of the plot. Communities light large fires, and set off fireworks. It is called Guy Fawkes Day, for one of the men. Children make "guys" - false men - to burn in the fire. Indian people around the world use fireworks to celebrate a Festival of Lights. This festival is called Diwali, or Deepavali. It is one of the most important Hindu festivals. Hindus believe that on this day the evil spirit of darkness and dirt was destroyed. It is the day that spiritual light came to the earth and destroyed darkness. To celebrate, Hindus light lamps and fireworks. Today, China is the largest maker and exporter of fireworks in the world. And fireworks are an important part of many Chinese celebrations. This is particularly true at Chinese New Year. Chinese people use fireworks to scare away ghosts and evil spirits. They believe the fireworks bring the people good luck. Many countries use fireworks to celebrate the New Year. Some countries put on a big show, lasting for an hour. Other countries have smaller shows. For example, in Russia, many people gather in the famous Red Square to celebrate the New Year together. Instead of the city providing a fireworks show, people bring their own fireworks. Rather than coming to see a fireworks show, the people just come to be together and celebrate. That is what is so great about fireworks. They bring people together. People of all different races, religions, and beliefs sit together under one sky, under the colours of fireworks. They celebrate together. Yes! The most wonderful thing about fireworks is not how loud they are... ...or how big and colourful they are... ...or how they are made. The most wonderful thing about fireworks is the way that they bring everyone together. But there are some important things to remember with fireworks. They are a wonderful part of many celebrations. But they can be very dangerous. People often forget that fireworks are explosive - like a very small bomb! They can cause serious burns to people setting them and people watching the show. In extreme cases, fireworks can blind a person, or destroy a person's hand or foot. Fireworks can also damage the local environment. In dry areas, they can cause serious fires. For these reasons, authorities have banned fireworks in some countries. Anyone using fireworks should be very careful and obey local laws. Doing these things will create a fun and safe celebration! The writers of today's program were Rebekah Schipper and Christy VanArragon. The producer was Liz Waid. The voices you heard were from the United States. Computer users can hear these programs, read our scripts, and see our word list on our website at www.radioenglish.net. This program is called "Fireworks: A Global Celebration." If you have a comment or a question for Spotlight, please contact us. Our email address is radio@radioenglish.net. Or, you can leave a comment on the script page for this program on our website. We hope you can join us again for the next Spotlight program. Goodbye!