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00:00:00,000 --> 00:00:04,963

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ON-SCREEN TEXT: A Day In the Life Of a NASA Satellite Team
with Regina Caputo, Observatory Project Scientist

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00:00:04,963 --> 00:00:09,884

Regina Caputo: So, Swift is an observatory,
and it was launched about 15 years ago

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00:00:09,884 --> 00:00:13,638

and it's designed to study gamma-ray bursts,

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00:00:13,638 --> 00:00:17,559

which are the most powerful explosions in the universe.

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00:00:17,559 --> 00:00:21,104

Our day starts out like pretty much anyone else's.
We get up,

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00:00:21,104 --> 00:00:23,064

have some breakfast, go to work,

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00:00:23,064 --> 00:00:26,443

and get ready to do the daily planning telecon,

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00:00:26,443 --> 00:00:30,739

that's where we decide all the things that Swift is gonna look at
that day.

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00:00:30,739 --> 00:00:35,118

After we decide what Swift is gonna look at,
we send up that schedule to the satellite

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00:00:35,118 --> 00:00:39,080

uh, via ground stations, which are located
all around the world.

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00:00:39,080 --> 00:00:45,795

Swift will look at all of these various targets that we sent up--

sometimes 50 to 100 per day.

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00:00:45,795 --> 00:00:50,300

But then, something could happen--
maybe it's a supernova,

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00:00:50,300 --> 00:00:53,136

and then a ground-based telescope sees it.

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00:00:53,136 --> 00:00:58,850

This observatory might want Swift to take a look to see what they can see,
so they'll put in a request.

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00:00:58,850 --> 00:01:02,771

When this happens, we get--the Swift team gets emails

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00:01:02,771 --> 00:01:07,358

and pages--or texts, I guess texts, 'cause nobody gets pages anymore.

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00:01:07,358 --> 00:01:12,530

Anyway, this case is evaluated against
what we decided on earlier in the day,

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00:01:12,530 --> 00:01:19,704

As well as other requests that people want us to observe.
These also come from all around the world.

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00:01:19,704 --> 00:01:24,626

If we decide to approve this request, um,
what'll happen is

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00:01:24,626 --> 00:01:30,965

we will send that information up to the satellite
via the TDRS network,

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00:01:30,965 --> 00:01:38,723

and this is a network of satellites, uh, orbiting all around,
which allow us to talk to Swift at any time.

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00:01:38,723 --> 00:01:44,062

Once Swift has looked at this new target, um,
and the data was sent down to the ground,

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00:01:44,062 --> 00:01:51,486

Swift will go back to doing what it was doing before, uh,
perhaps following up on a gamma-ray burst in the afternoon.

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00:01:51,486 --> 00:01:56,407

At the end of the day...hmm.

So, there isn't really an end of the day for Swift--

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00:01:56,407 --> 00:02:00,537

it's always observing different targets that
we've put into the schedule.

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00:02:00,537 --> 00:02:05,375

Um, but for the rest of us humans, we have
an end of the day just like anybody else--

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00:02:05,375 --> 00:02:10,296

uh, go home, go to bed,
and think about the exciting day that we'll have tomorrow.

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00:02:10,296 --> 00:02:13,675

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00:02:13,675 --> 00:02:18,304

[silence]

ON-SCREEN TEXT: Explore Solar System & Beyond