



Lucy's Journey

“Earth Gravity Assist”

1
00:00:01,000 --> 00:00:04,250
It's been
a year since our intrepid explorer Lucy

2
00:00:04,250 --> 00:00:09,750
launched on her 12 year
long journey to the Trojan Asteroids.

3
00:00:11,583 --> 00:00:13,750
Oh hey, you're coming back our way!

4
00:00:15,750 --> 00:00:19,000
You'll need a little bit of help
from Earth to boost you

5
00:00:19,250 --> 00:00:21,750
all the way to your Trojan
Asteroid targets.

6
00:00:22,833 --> 00:00:27,750
This is an earth gravity assist or EGA.

7
00:00:28,166 --> 00:00:30,416
There we are.

8
00:00:30,416 --> 00:00:32,750
Planet Earth.

9
00:00:32,833 --> 00:00:37,333
Okay, Lucy, So
this is the first of two EGAs to get out

10
00:00:37,333 --> 00:00:40,416
to the Trojan asteroids,
with another to allow you

11
00:00:40,416 --> 00:00:43,333
to finish your tour.

12

00:00:45,000 --> 00:00:46,500

Each pass by Earth

13

00:00:46,500 --> 00:00:51,750

gives you that extra kick to get you
all the way out deeper to space and steers

14

00:00:51,750 --> 00:00:56,833

you on the right
track to your asteroid rendezvous.

15

00:00:57,416 --> 00:00:59,916

Whoa, wait just a second, Lucy.

16

00:01:00,250 --> 00:01:04,000

The team here on Earth is doing
some calculations to make sure you don't

17

00:01:04,000 --> 00:01:08,166

knock into any satellites or debris
as you make your pass over us.

18

00:01:08,750 --> 00:01:12,250

Make sure to grab some images of Earth
and the moon on your way in.

19

00:01:12,750 --> 00:01:16,250

It'll also help us test your cameras
and get you calibrated.

20

00:01:16,250 --> 00:01:20,416

The NASA Collision Assessment
Risk Analysis team might have you do

21

00:01:20,416 --> 00:01:26,916

some small engine burn maneuvers
to avoid crashing into anything.

22

00:01:26,916 --> 00:01:30,166

Some parts of the world,
like here in Western Australia, will see

23

00:01:30,166 --> 00:01:33,250

you soaring over us
like a star in the night sky.

24

00:01:33,916 --> 00:01:36,666

Others in the western United States
will be able to see

25

00:01:36,666 --> 00:01:39,750

you with binoculars.

26

00:01:41,333 --> 00:01:43,750

It was great seeing you pass through,
Lucy.

27

00:01:44,166 --> 00:01:49,166

We'll see you again in December 2024
for your Second Earth gravity assist.

28

00:01:49,416 --> 00:01:50,333

That'll boost you out