



A fascinating tour of the cosmos — from Earth orbit.

Written and produced by
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Narrated by Wren Ross

Running time: 30:00
Grade level: 4-12 and
general public audiences



Since its launch in 1990, the Hubble Space Telescope has provided incredible images in unprecedented detail to astronomers, and made an astonishing array of discoveries — from nearby objects in the solar system to the most distant galaxies at limits of the observable universe.

We've taken the best and most exciting Hubble images and woven them into an engaging story of cosmic exploration, bringing the wonders of the universe to audiences everywhere.

In this all-new production, major themes in current astronomy and cosmology are presented: new views of the planets; peeks into starbirth nurseries; visions of stardeath in its many forms; explorations of star clusters and galaxies; and views of the universe when the earliest galaxies first shone.

We catch glimpses of solar system objects, including the Moon and Venus; clouds on dusty Mars; Comet Shoemaker-Levy 9's crash into Jupiter; storms on Saturn, Uranus, and Neptune; and the faraway worlds of Pluto and Quaoar.



Beyond the solar system, we explore protoplanetary disks in the Orion Nebula, and regions of starbirth across the cosmos. We witness the deaths of stars like our Sun; the cataclysmic aftermath of supernovae in the Crab Nebula; and expanding rings around Supernova 1987a. We see breathtaking views of colliding galaxies; jets shooting from active galactic nuclei, powered by supermassive black holes; the eerie effects of gravitational lenses; and deep-field views of the most distant galaxies ever seen.



The images in *HUBBLE Vision 2* began as digital files released by the Space Telescope Science Institute, NASA, the European Southern Observatory, and by scientists working directly with HST data. Then we carefully reframed, resized, cropped and enhanced the images for optimal planetarium display. We've also created original artwork and graphics to supplement and illustrate other points of the show.

Bring the Space Telescope's exciting discoveries to audiences of all ages.

HUBBLE Vision 2 is a factual journey through the universe, as seen through the unblinking eye of one of the world's premier telescopes — a planetarium show done in the professional style you expect from Loch Ness Productions.





Science Education Content

The educational focus of *HUBBLE Vision 2* is to present the discoveries made by the Hubble Space Telescope, explaining the objects it has observed and the processes that shape the cosmos. This is done via a set of multidisciplinary themes woven throughout the program. These ideas help relate the information presented in the show to the lives of students and their families. The language level is appropriate for students at the middle-school level and above, and the general public

Show content is relevant in the following subject areas:

Earth and Space Sciences:

- Objects in the sky: planets (moons, surface characteristics, atmospheres, magnetic field phenomena), comets
- Extra-solar objects: stars, supernovae, nebulae, clusters, galaxies, and black holes

Science and Technology:

- Hubble Space Telescope and its science instruments
- Optical, infrared, and ultraviolet capability of the Space Telescope
- Hubble Space Telescope servicing missions

Physical Sciences:

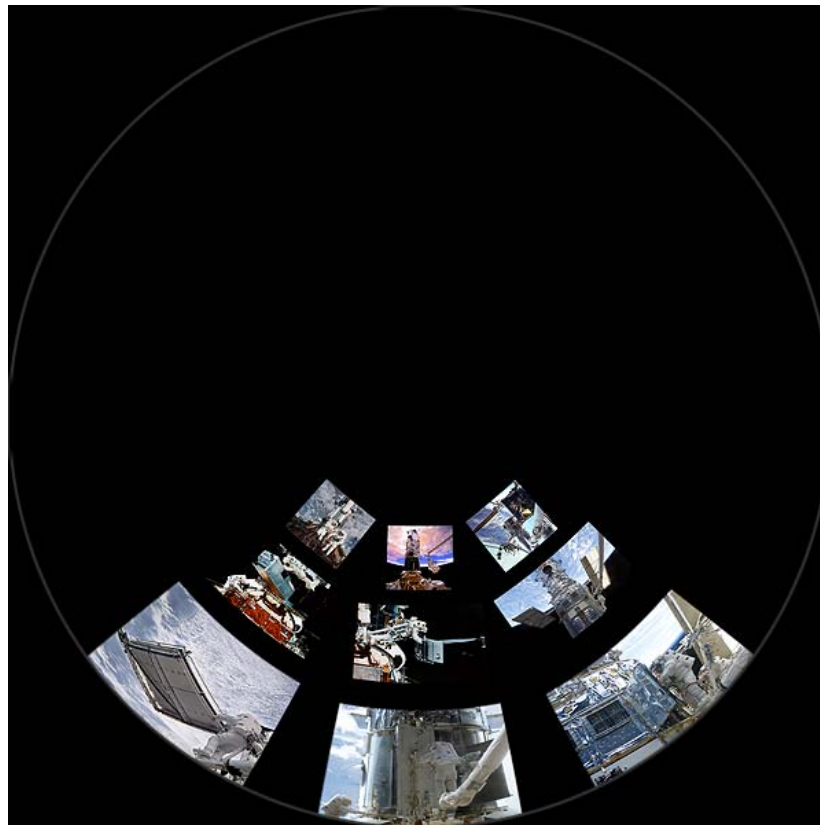
- How objects look in different realms of the electromagnetic spectrum
- Processes of starbirth, stardeath (astrophysical processes)
- Deducing the existence of black holes by effects on host galaxies
- Determination of cosmic distances
- Exploring the structure of the universe

Science Inquiry:

- How we use HST to explore the cosmos

This show adheres to principles put forth in the National Academy of Sciences' Education Standards published in 1996. For more details, visit the NAS Standards Web site at: <http://books.nap.edu/html/nses/html/index.html>.

A montage
of on-orbit
Servicing
Mission
images ...

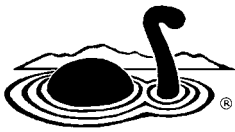


... just one of
the ~54,000
dome master
frames in this
show.



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FULLDOME SHOW PRICING

We make Loch Ness Productions shows available in the sizes required by the various projector systems they will run on. For pricing purposes, there are four general size categories, **SMALL, MEDIUM, LARGE,** and **X-LARGE.** Contact us for recommendations to help determine which size is right for you.

Each show includes a performance license, which basically provides you with the permission you need to present the show to the public. The license period is 50 years — for all practical purposes, unlimited time. You can read the details on our Web site, so you'll know in advance what the license terms are.

Show Title (Product Code ###)	Product Code	MOVIE SIZE	For systems projecting circles that are:	Price
HUBBLE Vision 2 (HV2) Larry Cat In Space (LCS) MAGELLAN: Report From Venus (MRV)	###-FS	SMALL	smaller than 1300 pixels	\$1595
	###-FM	MEDIUM	1300 to 2000 pixels (or prewarped)	\$2195
	###-FL	LARGE	larger than 2000 pixels	\$3095
	###-FX	X-LARGE	sliced* for multiple projectors	\$4095
Season of Light (SOL)	###-FS	SMALL	smaller than 1300 pixels	\$1895
	###-FM	MEDIUM	1300 to 2000 pixels (or prewarped)	\$2495
	###-FL	LARGE	larger than 2000 pixels	\$3395
	###-FX	X-LARGE	sliced* for multiple projectors	\$4395
Light Years From Andromeda (LYA) MarsQuest (MQ) Oceans In Space (OIS) Seasonal STARGAZING (SSG) Sky Quest (SQ) The Cowboy Astronomer (TCA) The Voyager Encounters (TVE)	###-FS	SMALL	smaller than 1300 pixels	\$1995
	###-FM	MEDIUM	1300 to 2000 pixels (or prewarped)	\$2595
	###-FL	LARGE	larger than 2000 pixels	\$3495
	###-FX	X-LARGE	sliced* for multiple projectors	\$4495

***About slicing:** Multi-projector edge-blended systems require pre-slicing of a show's images into the individual channels needed for each projector. We can slice for most standard configurations. But some theaters may have non-standard configurations, or require the use of proprietary software to slice. In those cases, we'll need to contract with your system provider for some custom encoding. Contact us about costs.

Multiple Copies of Movies...

Ordinarily, the shows we distribute are licensed for installation on a single playback system and/or site. But maybe you need multiple copies of your movies because your institution operates two or more fulldome systems. Or let's say you already have large and sliced video movie files, and then get an additional portable fulldome system and need smaller movies to run on it. For these situations, you'll need to contact us about extending the license from the first show to cover additional installations. Then, buy the appropriate number and size of Additional Movie Files you need, at the discounted prices we offer in the table to the right.

ADDITIONAL MOVIE FILES			
Product Code	MOVIE SIZE	For systems projecting circles:	Price
VMA-S	SMALL	smaller than 1300 pixels	\$1000
VMA-M	MEDIUM	1300 to 2000 pixels (or prewarped)	\$1600
VMA-L	LARGE	larger than 2000 pixels	\$2500
VMA-X	X-LARGE	sliced for multiple projectors	\$3500

Projector/Movie Upgrades...

Let's say you already have our fulldome movies at a small size, but then choose to upgrade to a higher resolution projector system and need to get new, larger movies. You retire your lower-resolution system and no longer run the movies installed on it. For this situation, you'll need to contact us about transferring the license you received with your first show to cover your new installation. Then, simply buy the appropriate size video you need, at the discounted prices we offer in the Video Movie Upgrades table.

VIDEO MOVIE UPGRADES			
Product Code	MOVIE SIZE	For systems projecting circles:	Price
VMU-S	SMALL	smaller than 1300 pixels	\$500
VMU-M	MEDIUM	1300 to 2000 pixels (or prewarped)	\$800
VMU-L	LARGE	larger than 2000 pixels	\$1250
VMU-X	X-LARGE	sliced for multiple projectors	\$1750

The details...

Our fulldome shows are made in fisheye circle form, and ship as ready-to-play *movies*, with audio and video files encoded/sliced/prewarped in formats and resolutions compatible with today's projector systems. **We do not ship dome masters.** We record the files onto data DVDs, USB Flash or external drives.

What we send...

In addition to the show, we also provide the show's fulldome "trailer"; still images that can be used for advertising and promotion; the license agreement, and a reference book in PDF form, containing the show script, production notes, resources, acknowledgements, and additional information.

Installation...

While it may be possible to play videos directly from our distribution media, we expect you'll copy the files onto your fulldome system for optimum performance. We provide pre-written play scripts for some systems; others will simply edit button scripts or enter the necessary system commands to load and play the movies.