

# **SPACECAM**

*aerial & specialized cinematography*



SpaceCam Information

# The SpaceCam Difference

*SpaceCam Systems, Inc., the leader in gyro-stabilized cinematography, wants you to carefully consider the differences when making the choice for your production's stabilized shooting needs.*

## ★ Versatile Applications

**Helicopters**.....The only gyro-stabilized system to offer not only side mounts, but also FAA approved nose mounts, the exclusive “RAMS” and the Huey Helicopter Omni Mounting System.

**Cable Rigs**.....Applicable with custom rigs of all kinds; descender, ascender and horizontal, using a fully wireless remote control operation.

**Camera Cars**.....Mounts to any camera car, including Shotmaker and the Padelford “high speed” version, using the standard floor support mount.

**Boats**.....Mounts to any watercraft using the standard floor mount.

**Cranes**.....Mounts to nearly every crane including the Chapman Titan, Chapman Lenny, Panther Pegasus, Akela, Super Aerocrane and the Super Technocrane.

## ★ Variety of Camera and Lens Options

- In-House 35mm 4-Perf
- In-House 65mm 5-Perf
- In-House 65mm 15-Perf
- Capability for HDTV, Genesis, Viper
- Compatibility with a wide variety of Panavision lenses, including 11:1 and Frazier
- In-House 35mm 8-perf Vista Vision
- Capability for 65mm 8-Perf
- All formats with 1000' loads
- Angenieux 25-250 HR zoom lens standard

## ★ Advanced Capabilities

- **Exclusive Laser Auto Focus System (LAFS)**  
Ensures precise and instantaneous focusing while on the move
- **Roll Augmented Mounting System (RAMS)**  
Extended to +/- 32 degrees or +/- 120 degrees with SpaceCam's exclusive “RAMS”
- **Motion Record Capability**  
Allows camera motions to be recorded during shooting to facilitate CGI or optical effects
- **High Powered Gyros & Direct Drive Gimbals**  
Provides increased stability and control
- **Fully Wireless Remote Control**  
Allows SpaceCam camera module and camera operator to be up to ½ mile apart
- **Windowless Enclosure**  
Eliminates reflection problems
- **Faster Pan and Tilt Rates**  
Speeds up to 120° per second  
360° continuous pan, +40/-90 tilt
- **Speed Aperture Computer**  
Integrated into the SpaceCam so the camera speed can be carried in the shot
- **Cold Weather Operation**  
Filming to -50° F with in flight heating
- **Auto or Manual Roll Modes**  
Permits locking or rolling of horizon

## *SpaceCam Receives Full Approvals for R.A.M.S.*

A revolutionary new design approach for SpaceCam's helicopter nose mount application has received STC approval from the Federal Aviation Administration for use in the United States and STC approval from Transport Canada for use in Canada. The R.A.M.S., a "roll augmented mounting system," provides for the first time, complete maneuvering freedom for the camera helicopter. Through the use of an advanced sensor and a proprietary design approach, SpaceCam's R.A.M.S. system offers a number of advantages over any hard mount nose systems:

- *Creativity* - Enables much more aggressive flying for filming, which translates to more dynamic material, with full 360 degree continuous pan and +40, -90 degree tilt while the helicopter rolls +/-120 degrees.
- *Versatility* – Ensures that the camera enclosure always remains vertical and unaffected by the helicopter angle, even when the camera is pointed 90 degrees down and the helicopter is maneuvering aggressively.
- *Safety* – Enhances all safety aspects of flight in that no roll limits exist for the film pilot and he may react without the subconscious flight constraints associated with old fixed mounts.
- *Cost Savings* – Camera resets between "takes" may be done much more quickly with resultant production benefits both financially and creatively.

SpaceCam designed and developed the first fixed hard nose mounts back in 1993 and has offered that option ever since. Other gyro systems have been restricted to the side mount position until just recently. However the resulting nose mount replicas that other companies are introducing fall far short of SpaceCam's original design as reported by the industry's top film pilots. While the competition is just now trying to catch up with the nose mount option, SpaceCam is once again moving forward with the R.A.M.S., which takes aerial cinematography to an even higher level.



# *Yes, there is a difference*

In the business of gyro-stabilized cinematography for the film industry, there are completely different companies that offer similar, but distinctively different pieces of equipment. Those balls mounted onto helicopters may look alike, but they are not. Some people care. Some don't. At SpaceCam, we believe everyone should at least know the differences.

With increased creativity in the minds of Directors and DPs and today's demanding audiences, stationary aerial views from hand held cameras leaning out of helicopter doors are no longer acceptable. Cinematography is now more than ever about artistic innovation and challenge. Great aerials can produce those results. At SpaceCam, we believe that great aerials require the best in stabilized camera equipment and the best crew to operate it.



## *But SpaceCam Costs Too Much*

Nothing could be further from the truth when you look closer and consider all of the details. The old adages apply: Time is money and you get what you pay for.

First of all, SpaceCam's basic rate sheet is identical to that of the other gyro-stabilized companies, even though their capabilities are far less than SpaceCam's. When making comparisons, and considering other camera options such as those that are not even gyro-stabilized, consider these cost factors:

Each roll of 35mm film, raw stock and processing, costs an estimated \$1,000. When shooting aerials with inferior camera equipment, how many rolls of film are ultimately rendered unusable due to extreme instability? Every production has had its horror stories of wasted film when shooting aerials. How many times has \$1,000 gone into the trash? Just three rolls of wasted film equals a day's worth of shooting with SpaceCam. And with SpaceCam, there is no wasted film. Quite to the contrary.

When you consider the final product, SpaceCam actually *saves* your production money. In addition to film costs, consider the additional costs of helicopter time (upwards of \$1,000 per hour) and crew overtime that are incurred when inferior camera equipment is the cause of re-takes and re-shoots. Other equipment may seem less expensive on a paper estimate done prior to shooting. But when all is said and done, what will the actual costs be, and more importantly, what will the finished product on the big screen look like? Don't let your finished product be compromised by unrealistic promises and by budgetary fears. Get the best by using the best. You'll be thrilled by the results and pleasantly surprised that the best doesn't actually cost more.

### ***Helicopter Nose Mounts***

The most versatile way to shoot aerials from a helicopter is by mounting the camera to the nose. This enables flight speeds 30-40% faster than side mounts, unobstructed 90 degree down-look capability, unobstructed sweeping pan in forward flight, flexibility in changing screen direction and



better visibility for the pilot. SpaceCam designed and developed the first fixed hard nose mounts back in 1993 and has offered that option ever since. Other gyro systems have been restricted to the side mount position until just recently. However the resulting nose mount replicas that other companies are introducing fall far short of SpaceCam's original design as reported by the industry's top film pilots.

### ***SpaceCam R.A.M.S.***

While the competition is just now trying to catch up with the nose mount option, SpaceCam is once again moving forward with even greater versatility. SpaceCam now introduces the R.A.M.S. system for its nose mount application. This "roll augmented mounting system" provides, for the first time, complete maneuvering freedom for the camera helicopter. Through the use of an advanced sensor and a proprietary design approach, SpaceCam's FAA approved R.A.M.S. system offers a number of advantages over any hard mount nose systems:

- *Creativity* - Enables much more aggressive flying for filming, which translates to more dynamic material, with full 360 degree continuous pan and +40, -90 degree tilt while the helicopter rolls +/-120 degrees.
- *Versatility* – Ensures that the camera enclosure always remains vertical and unaffected by the helicopter angle, even when the camera is pointed 90 degrees down and the helicopter is maneuvering aggressively.
- *Safety* – Enhances all safety aspects of flight in that no roll limits exist for the film pilot and he may react without the subconscious flight constraints associated with old fixed mounts.

### ***SpaceCam Laser Auto Focus***

SpaceCam has developed and incorporated into its camera system the industry's first fully automatic laser focusing system for airborne and specialized gyro-stabilized applications. With the advent of highly stabilized and controllable gyro-stabilized platforms, more and more cinematographers are tempted to use longer lenses. Using longer lenses can, under many circumstances, create focus problems. SpaceCam's fully tested and operational laser auto focus system virtually guarantees sharp, consistent focus under all lighting conditions with even very long focal lengths. It has been used extensively on a number of major films and has performed flawlessly.

### ***SpaceCam Patented Fiber Optic Taper***

Focus is the bane of long focal length lenses, especially under low light conditions when the target is moving. Gyro-stabilized mounts all rely on the quality of video image coming from the film camera's video tap in order to focus effectively. All taps used today, with the exception of SpaceCam's, utilize "off the shelf" equipment. SpaceCam developed and patented the fiber optic taper video tap technology that totally eliminates depth of field in the video optical system and provides a crisp, high contrast image under even nighttime practical lighting conditions. As a result, manual focus errors are dramatically reduced.

## ***Camera Excellence***

The actual camera packages useable with the various “ball mounts” vary drastically. For the most common format - 35mm-4 perf. – either the Mitchell Mark II or the Arri 435 are used. SpaceCam’s own camera, built around the Mitchell Mark II movement and mirror drive, incorporates a Panavision hard front and accepts virtually all Panavision optics. It incorporates the ultra steady and proven pin registered Mitchell Mark II movement. In addition, advantages of the SpaceCam package include:

- Camera speeds from intervalometer rates to 120 frames per second, with the same motor and power supply.
- Undermounted 1000’ magazines of a patented SpaceCam design.
- Accepts virtually all prime and zoom lenses from 8mm to 800mm.
- Integrated speed aperture computer, which allows programmable camera speed change.
- Motion record capability with built in film marker LED, which allows camera motions to be recorded during shooting to facilitate CGI or optical effects.
- Windowless enclosure, which eliminates reflection problems.
- Precision digital lens drive system that has no rival in the film industry.



## ***Camera Versatility***

SpaceCam offers a variety of camera options in addition to 35mm-4 perf. For visual effects, SpaceCam offers its own, in-house 35mm-8 perf. Camera with a vast range of Nikkor prime optics and its own, in house 65-15 perf camera system allowing for Large Format Aerials to be shot with never before seen stability and control. SpaceCam is also compatible with HDTV camera systems such as the Sony 700, 900 & 950, Thomson Viper, Panavision Genesis and the Panasonic VariCam.

## ***Versatile Applications***

While SpaceCam is known primarily for its work on helicopters, there are many other applications for its gyro-stabilized platforms. SpaceCam can be mounted to camera cars, cranes and boats, plus horizontal and vertical, ascender or descender cable rigs. It can be operated with a fully wireless, remote control capability, offering unlimited creativity no matter what stabilization hazards may be present on a given location.

## ***Reliability***

All the bells and whistles are meaningless if on location they don't work. Due to the complexities of gyro-stabilized camera systems and the complexities of working with helicopters, reliability is a legitimate concern of production. Rest assured - SpaceCam is hands down, the most reliable system available. Its track record for successful operation is unrivaled by any competing system.

## ***The SpaceCam Difference***

The ability to innovate in this specialized area of cinematography can make the difference between average images and images which are truly spectacular. SpaceCam has continually responded to the special needs of production and the spectacular results can be seen in film after film. At SpaceCam, we believe if you understand the differences, you'll make the best choice of gyro-stabilized camera systems and those spectacular images can be yours.

## *SpaceCam Systems Recent Credits*

*For a full list of SpaceCam Credit see our website at [www.spacecam.com](http://www.spacecam.com)*

<b>10.5 Apocalypse</b>	2005 <b>Joseph</b>	2005 <b>Tenacious D</b>	2005
<b>Alpha Dog</b>	2005 <b>King Kong</b>	2005 <b>Visiting, The</b>	2005
<b>Bewitched</b>	2005 <b>Longest Yard</b>	2005 <b>Welcome To America</b>	2006
<b>Breach</b>	2006 <b>Man About Town</b>	2005 <b>What's the Meaning of Love</b>	2005
<b>Bloodrayne</b>	2005 <b>Miami Vice (HD)</b>	2005 <b>X-Men 3</b>	2005
<b>Catch and Release</b>	2005 <b>Mission Impossible 3</b>	2005 <b>Yours, Mine and Ours</b>	2005
<b>Cheaper by the Dozen 2</b>	2005 <b>Mr. and Mrs. Smith</b>		2005
<b>Chronicles of Narnia</b>	2005 <b>North Country</b>		2005
<b>Click (Genesis)</b>	2005 <b>Pacific Air 121</b>		2005
<b>Death and Life of Bobby Z</b>	2005 <b>Perfect Strnager</b>		2006
<b>De Ja Vu</b>	2006 <b>Pirates of the Caribbean 2 &amp; 3</b>		2005
<b>Devil Wears Prada</b>	2005 <b>Reaping, The</b>		2005
<b>Domino</b>	2005 <b>RV</b>		2005
<b>Dungeon Siege</b>	2005 <b>Shaggy Dog, The</b>		2005
<b>Fast and Furious 3</b>	2005 <b>Sentinel, The</b>		2005
<b>Freedomland</b>	2005 <b>School for Scoundrels</b>		2005
<b>Flags of our Fathers</b>	2005 <b>Sixteen Blocks</b>		2005
<b>Four Brothers</b>	2005 <b>Stealth</b>		2005
<b>Good Shepherd, The</b>	2006 <b>Stranger Than Fiction</b>		2005
<b>Guardian, The</b>	2006 <b>Superman Returns (Genesis)</b>		2005
<b>HanBanDo (Korea)</b>	2006 <b>Super Ex-Girlfriend</b>		2005
<b>Island, The</b>	2005 <b>Talladega Nights</b>		2005



## **Recent SpaceCam Commercial and TV Credits**

*For a full list of SpaceCam Credit see our website at [www.spacecam.com](http://www.spacecam.com)*

Aero Film.....	Lincoln.....	2005	Pictures Productions.....	Songo.....	2005
Backyard Productions.....	Buick.....	2005	Reactor Films.....	Chevy.....	2005
Chased by Cowboys.....	Chevy.....	2005	CBS TV.....	C.S.I. Las Vegas.....	2005
H.S.I.....	Cingular Wireless.....	2005	CBS TV.....	C.S.I. Miami.....	2005
M.J.Z.....	Captian Crunch.....	2005	Hanger 1 Project LLC.....	E.R. ....	2005
M.J.Z.....	GMC.....	2005	Paramount Pictures.....	JAG.....	2005

## **SpaceCam Large Format Credits**

(IMAX) Africa's Elephant Kingdom.....	1998	(IMAX) Equus: The Story of the Horse.....	2002
(IMAX) Everest.....	1998	(IMAX) Top Speed.....	2003
(IMAX) Sydney: A Story of a City.....	1999	(IMAX) Red Flag.....	2003
(IMAX) Dolphins.....	2000	(IMAX) Coral Reef Adventure.....	2003
(IMAX) Shackleton's Antarctic Adventure.....	2000	(IMAX) NASCAR.....	2004
(IMAX) Lost Worlds.....	2001	(IMAX) Mystery of the Nile.....	2005
(IMAX) Journey into Amazing Caves.....	2001	(IMAX) Greece –Secrets of the Past.....	2005
(IMAX) SkyDance.....	2002	(IMAX) Louisiana Wetlands.....	2005



**For a cost estimate , call SpaceCam at (818) 889-6060**

SpaceCam Standard 35mm System Package

4 Perf. Camera: In-House Mitchell Mark II Movement  
 Camera speeds 1-120 FPS Crystal Controlled  
 SpaceCam Stabilized Mounting System

1000' Magazines (2)  
 Speed Aperture Control

<b>CAMERA FORMATS</b>	<b>LENSES</b>	<b>SHOOT</b>	<b>W/T/H*</b>	<b>WEEKLY</b>
<b><u>35mm 4-Perf</u></b> or Super 35 (In-House Camera Incl.)	Angenieux HR 10x Zoom 25-250mm T3.5 or 20x Zoom 23-460mm T8	\$3,000	\$1,500	\$12,000
<b><u>35mm 8-Perf</u></b> Vista Vision (In-House Camera Incl.)	Set of Nikkor Primes 35mm T1.4, 50mm T1.2, 85mm T1.4 or additional lenses below	\$3,300	\$1,650	\$13,200
<b><u>Special Package</u></b> (35mm 4-Perf & 8-Perf) (In-House Cameras Incl.)	See Lenses Above for 35mm 4-Perf & 35mm 8-Perf	\$3,600	\$1,800	\$14,400
<b><u>HDTV</u></b> (Camera Separate)	Camera and Lenses Rented separately from Plus 8 Video (818/333-1000)	\$2,500	\$1,250	\$10,000
<b><u>65mm 5-Perf</u></b> (In-House Camera Incl.)	Prime and Zoom Lenses Rented separately from ParadiseFX (310/202-6566)	\$3,300	\$1,650	\$13,200
<b><u>65mm 8-Perf</u></b> (Camera Separate)	Camera and Lenses Rented separately from ParadiseFX (310/202-6566)	\$3,300	\$1,350	\$13,200
<b><u>65mm 15-Perf</u></b> (In house Camera Incl.)	Set of Hasselblad Lenses 40mm, 50mm, 80mm Or additional lenses below	\$5,500	\$2,750	\$22,000

**SpaceCam CREW (per 10 hour day - 10+ @ 1.5, 12+ @ 2.0, holidays @ 2.0)**

Camera Operator (SpaceCam has a roster of approved operators)	\$2,000 - \$3,000
SpaceCam Technician	\$650
Second Technician (required for Long Line, Descender and pre-rig jobs)	\$350

**ADDITIONAL/OPTIONAL EQUIPMENT SHOOT W/T/H\* WEEKLY**

Standard 85 & ND Filter Set	\$120	\$60	\$480
Video Recorder with Mini DV Playback Capability	\$150	\$75	\$600
Wireless Remote Control Data Link	\$250	\$125	\$1,000
Laser Auto Focus System	\$200	\$100	\$800
SpaceCam Motion Record Capability	\$200	\$100	\$800
Helicopter Nose Mount Bracketry	\$400	\$100	\$1,200
SpaceCam R.A.M.S. Capability	\$200	\$100	\$800
Helicopter Long Line or Underslung	\$500	\$250	\$2,000
Descender/Cable Rig (sled, microwave and remote)	\$1,250	\$625	\$5,000
Generator	\$30	\$15	\$120
In-House Anamorphic 10x Zoom	\$200	\$100	\$800
Vista Vision Lenses – 18, 20 24 28, 105mm	\$100	N/C	\$400
Vista Vision Zoom Lens 50-300mm	\$200	N/C	\$800
Panavision Special Lenses (35mm 4-Perf and 8Perf)		Quoted Separately	
65mm-15 Additional Lenses (30, 110, 150, 250mm)	\$100	N/C	\$400
Support Van for Local Transport (Mileage Extra)	\$200	\$200	\$800
Shipping, Airfare, Hotel, Per Diem, Rentel Car		Quoted Separately	

(\*Weather/Travel/Hold Days)