Space Auction Item Descriptions

- 1. Apollo 17 Beta Cloth Mission Patch, Autographed by Crew Flown, Apollo 17: This Apollo 17 Beta-cloth mission patch was signed by all three members of the Apollo 17 crew the last group of humans to travel to the moon. (Flown Personally given to Ary by Ron Evans in 1985; COA can be provided by Ary).
- 2. Apollo 10 Beta Cloth Mission Patch, Autographed by Crew Flown, Apollo 10: This Apollo 10 Beta-cloth mission patch was signed by all three members of the Apollo 10 crew, and flew to the moon on the final dress rehearsal for the lunar landing in May, 1969. (Flown Personally given to Ary by Tom Stafford in the early 1990's; COA can be provided by Ary & Stafford).
- 3. <u>Apollo 12 Beta Cloth Mission Patch, Autographed by CMP Gordon:</u>
 This Apollo 12 Beta-cloth mission patch was personally signed by the mission's Command Module Pilot, Dick Gordon.

4. Skylab II Beta Cloth Mission Patch, Autographed by Crew (Flown, Skylab II:

This Skylab II Beta-cloth mission patch was personally carried by mission commander Alan Bean aboard the second manned mission to Skylab - America's first space station. The patch was in space nearly 60 days, and made 858 orbits of the Earth between July - September, 1973. The patch has been signed by all three Skylab II crew members - Alan Bean, Jack Lousma and Owen Garriott. (Flown - Given to Ary by Bean just months after the mission; COA can be provided by Ary).

5. Flown Apollo-Soyuz Beta Cloth Mission Patch, Autographed by U.S. Crew (Flown, ASTP):

This Beta-cloth mission patch was personally carried by Apollo-Soyuz mission commander General Tom Stafford on the first international spaceflight in July, 1975. Stafford, and his two crewmates, Deke Slayton and Vance Brand, rendezvoused and docked their Apollo spacecraft with a Soviet Soyuz piloted by cosmonauts Alexi Leonov and Valeri Kubosov in what history has named the "Handshake in Space." Stafford would be nominated for the Nobel Peace Prize for his work on this mission. This patch was carried in Stafford's Personal Preference Kit (PPK), and it was signed by all three American astronauts – Stafford, Brand & Slayton. (Flown – Given to Ary by Tom Stafford; COA can be provided by Ary & Stafford).

6. 16mm Maurer Camera, in Pieces:

The 16mm Maurer was the primary movie camera used by Apollo, Skylab and early Space Shuttle astronauts to capture movie footage of mission events. This unit contains a Part Number: CF55008

and a Serial Number: 0003. The camera is damaged/partially disassembled, but could probably be restored to exhibit condition.

7. DSKY Display:

This is the status indicator removed from an Apollo DSKY. The DSKY was the one of the most important pieces of hardware aboard both the Apollo Command and Lunar Modules. It provided the user interface for the astronauts to the Apollo Guidance Computer (AGC), and is prominently seen as an integrated control system in both

the LM & CM control panels. This status indicator has a crack in the glass face. Flight history unknown.

8. Flown, Battery Bus Bar Cable (Flown - Apollo 13):

This small electrical cable was used to interconnect the onboard batteries of the fabled Apollo 13 Command Module, "Odyssey." (Flown - Apollo 13; Complete with original Rockwell Parts Removal Tag showing it had been removed from Spacecraft 109 - Apollo 13, for PFT or Post Flight Testing).

9. Soyuz Launch Key:

This was the primary firing key used to launch the Soviet cosmonaut crew aboard the Soyuz T-14 spacecraft to the Salyut-7 space station in September, 1985. The key was then presented back to T-14 cosmonaut, Georgi Grechko, where this key was obtained. Identical keys to this have been used since the original launch of Yuri Gagarin, and continue to be used to this day to launch the Soyuz booster. These keys are also identical to those captured by the Soviets at the end of World War II that were used to launch the German V-2 rocket. (COA can be provided by Ary)

10.H2O Filter Assembly:

Used aboard the Apollo Command Module to filter water that was generated from the onboard fuel cells. Flight history unknown. P/N: 61A830219-19; S/N: 004

11.Camera Lens Assembly:

This is the lens assembly removed from the Alignment Optical Telescope Assembly used in the Apollo Lunar Module. These units are extremely rare for all flown units remained attached to the Lunar Modules when they were jettisoned. Nearly all of the remaining AOT's were then ordered to be dissembled and melted down for their Beryllium contents in the 1980's during a critical shortage of the metal that impacted military programs. This lens, which shows some damage, was obtained from an employee of the Kollsman Instrument Company who oversaw the disassembly and scrapping of the AOT's for the melting-down process. (COA can be provided by Ary)

12. Mercury Spacecraft Shingle:

An extremely rare, black, Rene-41 heat shield shingle removed from the exterior of a Mercury spacecraft. Has the word "HATCH" handwritten on the inside, with several white painted stripes. Contains no identifying numbers. Flight history is unknown.

13. Cosmonaut Flight Patch Set from Georgy M. Grechko - Flown Soyuz T-14:

Soviet cosmonaut Georgy Grechko wore this set of patches on his blue inflight garment during his nearly 65 days aboard the Salyut-7 space station between September-November, 1985. (Grechko cut these emblems from his garment and personally gave them to Ary during a visit in Russia in April, 1991. Comes with both a Russian language & English translation COA signed by Grechko).

14. <u>Five Apollo XIII Lucite Mementoes containing couch restraint material - Flown, Apollo 13:</u>

Of the five presentation pieces, three are smaller units, and two are larger pieces. Each contain a flown segment of Apollo 13 Commander Jim Lovell's spacecraft couch (2.5" x 4") encapsulated in acrylic. Contains a 1.5" x 1" piece of Teflon-coated

backing restraint material removed from the Command Module "Odyssey", with a backdrop of a colorful Apollo 13 emblem decal.

The small units were specifically designed by the Kansas Cosmosphere & Space Center in 1997as an exclusive presentation item for visiting dignitaries in during the KCSC's much heralded restoration project to save the Apollo 13 spacecraft.

The two larger units are extremely rare, and were specifically commissioned by the Kansas Cosmosphere as special presentation pieces for film director Ron Howard, and actors Tom Hanks, Kevin Bacon, and Bill Paxton, as well as other key film production crew members of the Academy Award winning film, "Apollo 13." The Cosmosphere played a key role in the movie production, and its director served as the film's technical consultant. The connection of these pieces to the movie is described on the back of the encapsulated Apollo 13 mission emblem. Less than 50 of these specially produced acrylics were produced.

15. Two Rolls Apollo 10 Uncut 70mm Hasselblad film Images:

The primary camera that captured most of the spectacular images of Apollo missions to the moon was the 70mm Hasselblad. The camera used specially built 200 exposure film magazines that were removed by the astronauts and returned to Earth. Both rolls of film are <u>uncut</u>, NASA produced, 70mm positive transparency contact strip of the entire "Magazine N" taken by the Apollo 10 astronauts (approx. 130 individual images), and "Magazine Q" (approx. 170 individual images). These rolls were produced from the original film negative, and were created for the Astronaut Office for post-flight analysis. It is rare to find complete, uncut film magazine rolls like this. (COA for these film rolls can be produced by Chief of the Astronaut Office, Tom Stafford, who ordered the production of these pieces for the Astronaut Office.)

16. Two Rolls of Uncut 70mm Hasselblad film Images, Apollo 13 & Apollo 10:

The primary camera that captured most of the spectacular images of Apollo missions to the moon was the 70mm Hasselblad. The camera used specially built 200 exposure film magazines that were removed by the astronauts and returned to Earth. Both rolls of film are <u>uncut</u>, NASA produced, 70mm positive transparency contact strip of the entire "Magazine JJ" taken by the Apollo 13 astronauts (approx. 165 individual images), and from the Apollo 10 "Magazine M" (approx. 165 individual images). These rolls were produced from the original film negative, and were created for the Astronaut Office for post–flight analysis. It is rare to find complete, uncut film magazine rolls like this. (COA for these film rolls can be produced by Chief of the Astronaut Office, Tom Stafford, who ordered the production of these pieces for the Astronaut Office.)

17. Film Roll, 70mm, Apollo 16, (Magazine NN):

The primary camera that captured most of the spectacular images of Apollo missions to the moon was the 70mm Hasselblad. The camera used specially built 200 exposure film magazines that were removed by the astronauts and returned to Earth. This film is an <u>uncut</u>, NASA produced, 70mm positive color transparency contact strip of the entire "Magazine NN" taken by the Apollo 16 astronauts. These rolls were produced from the original film negative, and were created for the Astronaut Office for post-flight analysis. The roll contains approximately 166 individual images. It is rare to find complete, uncut film magazine rolls like this.

(COA for these film rolls can be produced by Chief of the Astronaut Office, Tom Stafford, who ordered the production of these pieces for the Astronaut Office.)

18. Apollo Couch Headrest Pad:

Black padded headrest removed from the astronaut couch of an Apollo Command Module spacecraft. The unit has no identifying numbers, but is from a Block II couch. Slight tear, but indicative of normal wear and tear. Flight history unknown.

19.EVA Tether Hook Assembly:

This is the tether hook assembly removed from the end of the EVA tether used in training by Apollo 17 Command Module Pilot, Ron Evans. Evans would perform a record-breaking trans-Earth spacewalk during the last mission to the moon in December, 1972 using an identical tether hook to secure him to the spacecraft while conducting his EVA. P/N: 10M50122-1; S/N: 1006. Unit was personally presented to Ary by his close friend, Evans. (COA from Ary can be produced)

20. Film Roll, 70mm, Apollo 11, (Magazine N):

The primary camera that captured most of the spectacular images of Apollo missions to the moon was the 70mm Hasselblad. The camera used specially built 200 exposure film magazines that were removed by the astronauts and returned to Earth. This film is an <u>uncut</u>, NASA produced, 70mm positive color transparency contact strip of the entire "Magazine N" taken by the Apollo 11 astronauts during the historic mission of the first moon landing. These rolls were produced from the original film negative, and were created for the Astronaut Office for post–flight analysis. The roll contains approximately 140 individual images. It is rare to find complete, uncut film magazine rolls like this, especially from the Apollo 11 mission. (COA for these film rolls can be produced by Chief of the Astronaut Office, Tom Stafford, who ordered the production of these pieces for the Astronaut Office.)

21. Flown Apollo 10 Beta Cloth Mission Patch, Autographed by Crew - Flown Apollo 10:

The original mission patches attached to the Apollo astronaut's space suits were silk-screened on a material called Beta Cloth – the same fire-resistant material that made up the outer layer of the space suit. This Apollo 10 Beta Cloth mission patch was personally carried by mission commander Tom Stafford to the moon during the final full dress-rehearsal of a lunar landing. The patch has been signed by all three crew members – Tom Stafford, Gene Cernan and John Young. (Flown – Comes with hand written COA from Apollo 10 Commander, Tom Stafford.)

A second, unflown and unsigned Apollo 10 Beta patch is also included.

22. York Mesh, Apollo Lunar Sample Return Container:

To protect their precious cargo of moon rocks on their return to Earth, lunar astronauts would place these woven, $8" \times 6"$ Chromel-R stainless steel pads, called York Mesh Liners, in the bottom of each lunar sample return bag to cushion the material against vibration.

23. Bag, Lunar Sample Return:

The moon rocks and other lunar samples collected by the Apollo astronauts were stored and sealed in metal rock boxes while still on the lunar surface. To reduce the potential for contamination, the astronauts then moved the boxes into these specially designed Beta-cloth bags that would further seal the lunar samples until they could be properly opened again in a controlled, sterile environment back on

Earth. P/N: V36-788034 S/N: 06362AJ1885. (The auction company apparently has researched this item and has found it was flown.)

24. Apollo CM Launch Tower Bolt - Flown, Apollo 10:

One of the four explosive bolts used to hold the Launch Escape Tower to the Apollo 10 Command Module, "Charlie Brown" during launch. If no emergencies arose during the first three minutes of launch, the escape tower would be jettisoned by igniting its solid-fueled rocket motor and blowing these bolts to release the tower from the Apollo. These bolts would stay connected to the Command Module throughout the entire mission, and would only be removed after the Apollo returned to Earth, and went through post-flight inspection at the Rockwell facility in Downey, California. This is a fired, flown bolt, although it appears the original, yellow Rockwell Parts Removal Tag showing it had been removed from Spacecraft 106 is no longer with the item. (COA can be provided by Ary).

25. Flown Apollo 10 Heat Shield Segment, in Acrylic:

In May, 1969, the crew of Apollo 10 established one of the world's great aerospace records when, during Earth reentry, they attained the fastest speed ever achieved by a human – 24,790mph. This beautiful presentation piece contains a large 2" long segment of the burned heat shield removed from the Apollo 10 spacecraft "Charlie Brown," and encapsulated in a 4.5" tall acrylic pyramid.

26. <u>Apollo 17 Lucite Memento Containing Flown Heat Shield Mylar - Flown, Apollo 17:</u>

This acrylic presentation piece consists of two pieces of flown Mylar tape removed from the outer heat shield of the Apollo 17 Command Module "America" following mankind's final journey to the moon in December, 1972. A colorful Apollo 17 mission logo provides the background for encapsulated pieces. The piece was developed by the Kansas Cosmosphere & Space Center as a VIP presentation piece.

27. Apollo XIII LARGE Lucite Memento containing couch restraint material – Flown, Apollo 13:

This appears to be a single, large Apollo 13 lucite memento containing actual restraint material from Commander Jim Lovell's couch that was not able to be reused during the restoration of the spacecraft at the Kansas Cosmosphere in 1996. Two sizes of these mementos were created: a smaller one that was produced by the Cosmosphere to give to visiting dignitaries, and the much RARER larger units that were specifically produced for "Apollo 13" film director Ron Howard, and the cast and key crew members, including Tom Hanks, Kevin Bacon, Bill Paxton & Ed Harris. The connection of these pieces to the movie is described on the back of the encapsulated Apollo 13 mission emblem. Less than 50 of these specially produced acrylics were produced.

28.Beta Cloth NASA "Meatball" Logo:

This original silk-screened NASA logo patch on Beta-cloth is exactly the same emblem worn on the space suits and inflight garments of every Apollo astronaut.

29. Beta Cloth American Flag:

This silk-screened American flag on Beta-cloth is identical to the flag worn on the shoulder of every Apollo astronaut.

30. Three Apollo 12 Beta Cloth Mission Patch:

These are non-flown, but pristine Apollo 12 Beta-cloth mission patches.

31. Helmet Visor Assembly:

This has been <u>mislabeled</u> on the auction listing. This appears to be a visor assembly for the Launch and Entry helmet worn by Shuttle astronauts prior to the Challenger disaster. The shield is marked "CL II" (Class II). The acrylic is scratched.

32. Apollo 13 Movie Astronaut Bio-Belt:

This unit is a copy of the original bio-senors worn by the Apollo astronauts during their missions. This specific unit was used in the production of the Academy Award winning film "Apollo 13." (COA from Ary can be provided)

33. Silkscreen, NASA "Meatball" Logo:

This is the original set of silkscreens used by the NASA contractor to make all of the NASA "meatball" patches worn by Apollo astronauts on their space suits and inflight garments.

34. Apollo-Soyuz Beta Cloth Mission Patch:

This Beta-cloth Apollo-Soyuz mission patch is identical to the ones worn by the American crew, Tom Stafford, Vance Brand and Deke Slayton.

- **35.**Stamp Collection (As stated on auction listing)
- **36.** <u>Autographed Black & White Photo of Two Cosmonauts:</u> (As stated on auction listing)
- 37. Four Yuri Gagarin "First Man in Space" 30th Anniversary Medals: (As stated on auction listing)
- **38.**Stamp Collection (As stated on auction listing)
- **39.Stamp Collection** (As stated on auction listing)
- **40.**Stamp Collection (As stated on auction listing)
- **41.**Stamp Collection (As stated on auction listing)
- 42. Stamp Collection (As stated on auction listing)
- **43.**Stamp Collection (As stated on auction listing)
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- 48. Stamp Collection (As stated on auction listing)
- **49.**Stamp Collection (As stated on auction listing)

50. Apollo Spacecraft "Caution & Warning" Indicator Panel Assembly;

This is one of the "Caution & Warning" indicator panel sets removed from the Apollo Command Module primary control panel. Panel consists of a total of 24 individual illuminated indicators (six rows with four columns). These indicators were visually prominent on the Command Module's primary center control panel, and indicated to the astronauts if there were problems with any of the spacecraft systems.