MOON VILLAGE ASSOCIATION WEBINAR – LUNAR SPACE TOURISM: GETTING THERE

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GETTING TO THE MOON
(WITHOUT ANY HELP FROM THE GOVERNMENT!)

1. Why Lunar Space Tourism?
2. Space Tourism Markets – in general
3. Lunar Space Tourism Market Demand
4. How to do it – First Steps: Going around the Moon
5. Finally, Landing and Moving on the Surface of the Moon
6. Addendum: Protecting the Lunar Legacy Sites
1. WHY LUNAR SPACE TOURISM?
WHY?

- New phase of lunar activity – Moon 2.0
- The Moon Village Association is contributing to this new future
- This is the start of Commercial Development of the Moon
- Possible Commercial Markets include resource extraction for export to Earth (eg PGM’s, Rare Earths, He3), Archival storage, movies/media/advertising, and lunar space tourism
- Lunar Tourism will be first source of real commercial revenues
2. SPACE TOURISM MARKETS – IN GENERAL
MARKET RESEARCH FINDINGS FOR NEAR-EARTH SPACE TOURISM DEMAND

**Orbital** Space Tourism Demand
- 60 per year at $20 million (Futron/Zogby Survey)

**Sub-Orbital** Space Tourism Demand
- 15,000 per year at $100,000 (Futron/Zogby Survey)
- 43,000 per year at $100,000 (Astrium Survey)
FUTURE ORBITAL SPACE TOURISM VIA SPACEX DRAGON?

Inside the Russian Soyuz

Inside the private commercial Dragon
SUB-ORBITAL SPACE TOURISM PROTOTYPE – SPACESHIPONE, ANSARI XPRIZE, MOJAVE, 2004 (NON-GOVERNMENTAL, RE-USABLE LAUNCHER AND SPACECRAFT)
VIRGIN GALACTIC OFFERING FOR SUB-ORBITAL SPACE TOURISM – SPACESHIP TWO ~$200,000 (REUSABLE SPACECRAFT AND LAUNCHER) (BIG WAITING LIST....)
BLUE ORIGIN OFFERING FOR SUB-ORBITAL SPACE TOURISM (REUSABLE LAUNCHER AND CAPSULE) ~ $100K PER TICKET?
3. LUNAR SPACE TOURISM MARKET DEMAND

(Market Research Study Data is limited)
MARKET DATA (LIMITED) FOR LUNAR SPACE TOURISM DEMAND – TWO CATEGORIES

- **Lunar Orbit** Space Tourism Demand
  - 2 per year at $150 million (Space Tourists Handbook – Anderson)
  - Adventurers’ Survey cites **19% of sample** if price could be reduced to $1 million

- **Lunar Surface** Space Tourism Demand
  - No published findings
  - Former proposed offerings from Golden Spike, announced in 2012, led by two ex-NASA directors Alan Stern and Gerry Griffin, no quoted prices
4. HOW TO DO IT – FIRST STEPS, GOING AROUND THE MOON

(The lowest cost solution)
APOLLO 8 WAS FIRST (IN DECEMBER, 1968)
“TOURISTS WILL LOVE IT!”
SAYS RICHARD GORDON OF APOLLO 12 (1969)
FIRST ORBITAL LUNAR TOURISM OFFERING – FROM SPACE ADVENTURES (2007, USING GOVERNMENTAL SOYUZ) - PRICED AT $150 M PER PERSON
FIRST SPACEX ORBITAL LUNAR TOURISM OFFERING USING PRIVATE DRAGON CAPSULE/ FALCON LAUNCHER (2017) - PRICED AT $150M
SECOND SPACEX ORBITAL LUNAR TOURISM OFFERING, USING PRIVATE STARSHIP (2018, TARGETED FOR 2023) – NO PUBLISHED PRICE
5. HOW TO DO IT – FINALLY, LANDING AND MOVING ON THE SURFACE OF THE MOON

(The Google Lunar XPRIZE Story – Non-governmental teams competed)
NO HUMANS SINCE APOLLO GOVERNMENTAL ASTRONAUTS, AND LUNAR SURFACE TOURISM NOT YET BEING OFFERED – BUT MORE ENCOURAGEMENT FROM APOLLO GUYS! (ED MITCHELL OF APOLLO 14)
GLXP AIMED AT PRIVATE LANDING ON MOON. $40 MILLION IN PRIZES. JUDGING THE TEAM INDUS LANDER (OCT 2017)
GLXP JUDGES IN TEAM INDUS CONTROL ROOM – MONITORING TESTS IN BANGALORE, INDIA (OCT 2017)
GLXP JUDGES MONITORING PRIVATE LUNAR LANDER AND ROVER – BANGALORE, INDIA

Simulated Lunar Surface

Team Indus Rover
TEAM SPACEIL, FROM ISRAEL, MADE ATTEMPT - (LAUNCHED 21 FEB 2019)
GLXP TEAM SPACEIL ACHIEVES FIRST PRIVATE MOON ROBOTIC (HARD!) LANDING (11TH APRIL, 2019)
FIRST LUNAR SURFACE TOURISM?
MAYBE VIA SPACEX STARSHIP – WHICH IS ALREADY BEING READIED FOR NASA ARTEMIS MISSION.
SO, WE ARE GETTING THERE……..

- Moon Village Association working to enable “Moon 2.0”
- Space Tourism is important as a demand generator, and will be the first commercial revenue source at the Moon
- Space Tourism is real – orbital tourists can testify
- Space Tourism is about to get a boost from new Sub-Orbital Initiatives
- **Orbital Lunar** Space Tourism Offerings are available and contracts signed
- **Lunar Surface** Private Robotic missions have now been demonstrated thru GLXP and are real
- Where government lunar astronauts go (eg Artemis program landers), lunar tourists will follow, SpaceX Starship could be the means.
- Pat Collins will show you why in the next part of this Webinar……..
6. ADDENDUM
- PROTECTING THE LUNAR LEGACY SITES

(Prime sites for future Lunar Tourists)
Both organizations are NGO’s having Observer status at the UN in Vienna

Both are looking to the future and an equitable way forward for lunar activities

ForAllMoonkind has a particular focus – protecting the Lunar Legacy Sites.
HERITAGE ON THE MOON.....

Soviet era Lunokhod Rover

Apollo tracks and footprints
JOIN AND SUPPORT THE INITIATIVES….

- Join the Moon Village Association (and its working groups)
- Join ForAllMoonkind to preserve the legacy sites…
THANK YOU

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