

[title] -----
"Introduction of Astro-Tourism in Japan: "Sora Tourism" as a Strategy to Promote Space Tourism"

[author] -----
Makoto Arai, Sora Tourism Promotion Council, makarai1511@gmail.com

[symposium, session] -----
3 SYMPOSIUM ON SPACE PHILOSOPHY AND OUTREACH, 3.2 Living, Sport, Art and Culture in Space,
a Scifi futurologist

[paper information (check both)] -----
 this paper was not published before
 I agree that Space Renaissance International will publish this paper on their websites and publications

[abstract] -----

ABSTRACT

The Council for Promotion of "Sora Tourism" was established in 2017 to promote Japan-oriented AstroTourism, with the aim of expanding the potential market. The Japanese word "Sora" is the generic name of the three zones of sky, space and universe. The Council aims to accelerate the boom from sub-orbital space travel to orbital and lunar space travel, and will work together with spaceport initiatives. We particularly advocate the importance of "Space Marketing" to promote space development to the general public through such activities as cultural collaborations with anime, gourmet, sports and entertainment activities.

PAPER

1 Introduction of “Space Marketing”

“Space Marketing” was first advocated at the annual conference of the Japan Marketing Academy in 2016 [Arai & Kikuchi]. The main point is the significance of promoting the space industry by taking advantage of marketing know-how and wisdom. “Space Marketing” aims not only to promote the space industry itself, but also to provide goods and services via space (especially satellites), using Internet services, telephone, television broadcasting, weather information, car navigation, and GPS location information. These include various functions of mobile phones and “smart-phones”. In addition, it has another important mission to bring industries and companies that have nothing to do with the space industry to collaborate with space-related businesses. This is “Marketing of Space”.

“Space Marketing” has another aspect, namely marketing activity utilizing various resources of space. For example, various kinds of services using GPS location information, promotion using space content such as Star Wars, shooting of TV commercials in weightlessness, and sponsorships that support space development. This is “Marketing through Space”.

2 Bipolar structure of “Marketing”

These two aspects of “Space Marketing” are made clear in Table1. This “Space Marketing” bipolar structure is similar to that of “Sports Marketing”, which also has two aspects. One is "Direct marketing of sporting goods and services to sports consumers" which is described as "Marketing of Sports". The other is "marketing of other general goods, industrial products, or services by using sports promotion", which is called "Marketing through Sports". This separation of meaning by "of" and "through" can also be applied to Space Marketing.

"Marketing of Space" is "direct marketing of goods and services provided by space activities (especially satellites)" as mentioned above. "Marketing through Space" is described as "marketing other general goods, industrial products, or services by using promotion utilizing space (especially its characteristics and resources)." This covers also broad areas such as media development and sponsorship.

	Marketing <u>of</u> Sports	Marketing <u>through</u> Sports
Marketing Subject	Sports Organization (Team, Club, etc.)	General companies
Marketing effects	Increase of audience Increase of fans Increase of participants	Improving awareness and brand image of companies and products
	Marketing <u>of</u> Space	Marketing <u>through</u> Space
Marketing Subject	Government office JAXA	General companies
Marketing effects	Increase of the satellites Increase of the companies Increase of space budget	Improving awareness and brand image of companies and products

Table 1. Bipolar structure of “Sports Marketing” and “Space Marketing”

3 Marketing through Space

These two forms of “Through Marketing” (“Marketing through Space” and “Marketing through Sports”) can be organized as shown in the figure. (Table2.) Activities are organized in four areas: media development, advertisement and promotion use, sponsorship form and tourism promotion. Here I’d like to focus on Marketing through Space by tourism promotion.

Area	 Marketing through <u>Sports</u>	 Marketing through <u>Space</u>
Media	Stadium billboards Athlete’s uniform ad	Rocket wall ad Launch pad billboards
Ad/ Promotion	Athlete’s contract Various sports scenes in ad	CM shooting @ISS Space-trip campaign
Sponsorship	Sports events (Olympics, World cup, etc.)	“HAYABUSA2” support campaign
Tourism	Sports Tourism (Japan Sport Tourism Alliance)	Space Tourism (Sora Tourism Promotion Council)

Table 2. Two forms of “Through Marketing”

4 Tourism promotion

"Sports tourism", which promotes tourism utilizing sports, also includes “Marketing through Sports”. By inviting sports events and sports camps as a tourist resource for a chosen region, it brings customers and jobs to the area. The Olympics has the greatest effect. In order to promote it the Japan Sports Tourism Alliance (JSTA) was launched in April 2012.

"Space Tourism" means tourism in the form of space travel. The "Space Tourism Era" is expected to start soon. Another space-related Tourism is called “Astro Tourism”. This includes trips to look at the starry sky, and other beautiful views in the sky, such as wonderful natural phenomena, aurora, pre-dawn light, sunsets, and seas of clouds. These are also attractive to tourists. In Japan, including these Sky scenes, Space Tourism and Astro Tourism altogether, a new independent form of tourism was born: “Sora Tourism”. The Sora Tourism Promotion Council was established in 2017. This new activity is another form of Marketing Through Space in terms of creating tourism utilizing space and the starry sky.

5 “Sora Tourism”

The Sora Tourism Promotion Council is a non-profit collaboration of public, private, and academic organizations around Japan related to space and space tourism. Sora Tourism promotes space tourism by shining a light on all the fantastic space resources available, with the ultimate goal of making manifest the happiness, healing and dreams of all people.

“Sora” covers three zones. The first zone is the universe, galaxy and Milky Way. The second is near Earth space, where people can travel by rocket. We call both of these “宇宙” (Uchuu) in Japanese. And the third zone is the sky, aurora, the sea of clouds, and beautiful sunrises and sunsets. We chose the generic name “宙 (Sora)” to cover all three zones. “宙 (Sora)” is the latter character of “宇宙”. (Fig.1)

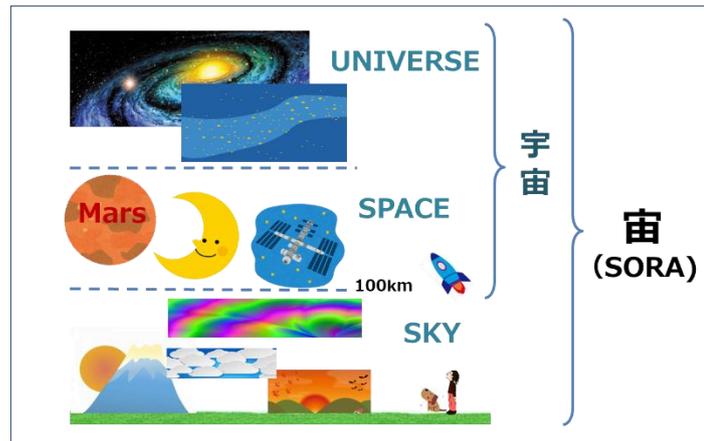


Figure 1. “宙(Sora)” zone

The distant Universe, with its beautiful shining stars, draws us into its endless mysteries. Space beckons us to blast off from Earth to the ISS, the Moon, and Mars. The Sky heals and inspires us, painting itself with graceful sunrises, melancholic sunsets, and magical auroras. At Sora Tourism, we use the word “sora” to encompass these myriad of charms of the heavens, space and sky.

"Sora Tourism" is a combination of two ideas. The starry sky is involved in various different cultural activities, such as history, myths and other narratives, and human life and destiny overseen by different constellations. The other idea is the scientific challenge of the universe, such as planetary physics and space development using rockets and satellites. The founders of the council were Prof. Agata as leader, Prof. Akiyama, an expert in rocket system development, Naoko Yamazaki, a former JAXA astronaut, and Makoto Arai at Dentsu Space Lab, who gathered different groups together and initiated various activities.

The Sun, Moon, stars and the universe give us healing and courage, as well as dreams and hope. Our vision is "We are all going to space - having tasted it here on Earth first". (Fig.2.) “宙(Sora) Tourism” logo is based on the spirit of the stars and the famous "universal illustration showing the position of the solar system" carried as a gold-plated disc by the Voyager satellite. (Fig.3.)



Figure 2. Sora Tourism logo

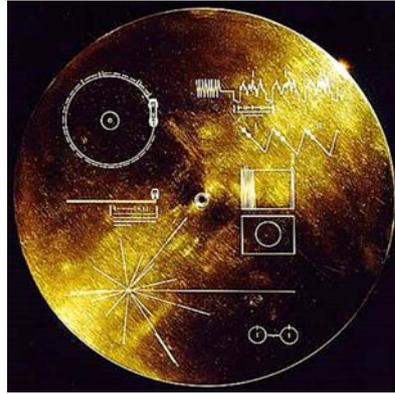


Figure 3. Gold-plated disc by the Voyager satellite

6 Objectives of Sora Tourism Council

The first objective of the Council is to provide information and know-how connecting many regions of Japan from Hokkaido to Okinawa and various specialized organizations related to "Sora". Important information and know-how can be learned by studying the problem of starry-sky sightseeing. So, as a first task, we have researched what kind of people appreciate the different values and appeal of the starry sky. We assume there are three layers. (Fig.4.) The first layer is experts called "Sora maniacs". The second layer is "Sora fans" who participate in such activities as taking a solar or lunar eclipse tour or going to a planetarium. The third layer is the widest, comprising people who like star-related imagery but are not interested in details.

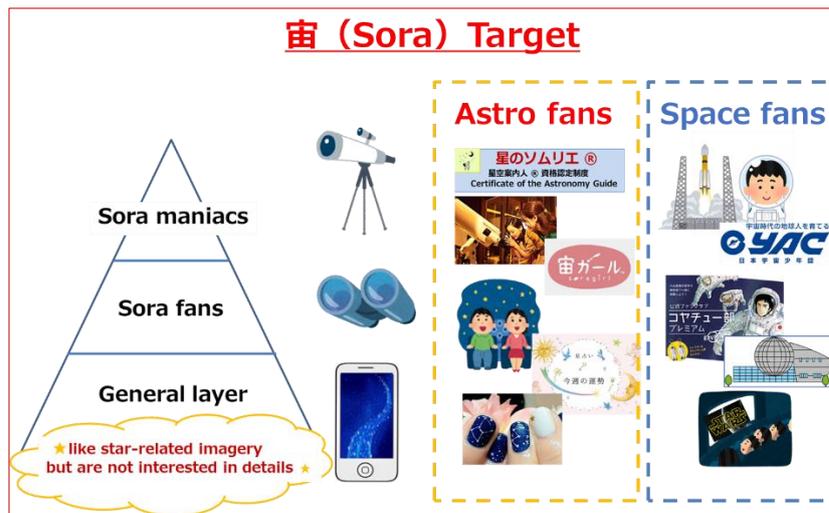


Figure 4. Sora fans

In 2018 the "Sora Tourism Marketing Survey" was conducted. According to the survey results, it is estimated that the current population of Sora tourism participation is about 8.5 million and the number of people who are expected to participate in the future is about 40 million. The volume is about a third of Japanese people. This confirmed that there is a potential to form a large market, such as a large need for travel to a viewing site.

Next, for starry sky observation a critical issue is weather. So an important second task is to find out what we can do as back-up plans in case of bad weather. Our third task is to utilize "Storytellers" in observing the starry sky. In Japan, the accreditation system called Starry Sky Guide (星空案内人) was started over 10 years ago, and nearly 5,000 Starry Sky Guides are now certified. However, they don't have sufficient opportunities to guide. On the other hand, there are many areas where local people cannot communicate the charm of "Sora" to tourists well. We try to connect storytellers with the facilities and areas that need such experts.

The second objective of the Council is to improve the functions of sending and receiving tourist information. Many areas and facilities are working separately, and providing information to tourists is also done individually and separately. So we constructed a portal site that aggregates all different types of information related to "Sora": https://soratourism.com/about_en. The Council's third objective is expansion of the market. We have started to send and receive information not only on the web but also at actual events.

7 Specificity of “Sora” Tourism in Japan

There are many unique points of "Sora Tourism". One is unique branding. Nagano Prefecture declared itself a "Space Prefecture" in 2016. Tottori Pref. followed and named itself "星取県" or "Star-capture Prefecture". Okayama Prefecture also declared itself "Kingdom of Heaven" (due to its long hours of sunlight). They are good rivals. Another is "Experience Tourism" which involves experiencing something new. In Kyoto the "Sora Fes" is a popular outdoor event involving people enjoying themselves under starry skies, including elements of fashion, culture and entertainment. Visitors are not asking for expertise but just for fun.

8 Variety of Sora culture

Recently the Ishigaki / Yaeyama Islands and Kozushima island received certification by the International Dark Sky Association. [International Dark Sky Association | International Dark-Sky Association](#) The Ministry of the Environment is promoting activities to maintain the beautiful starry sky by eliminating light pollution as far as possible. Our Council is of course also cooperating with this initiative.

A tour combining starry sky observation and sports has also appeared. A night-time tour with trekking, and a tour combining "Stars Yoga" and "Moon Yoga" with starry sky observation have started.

How many people have been healed, or have even felt saved, by the famous piece of music "Look Up at the Stars in the Night"? (見上げてごらん夜の星を) Many people love tons of songs on the theme of the Moon, stars and the universe.

A space-related anime "Your Name." was a big hit two years ago and screened in 85 countries. There was a scene where the Tiamat planet fell to the town of Hida, and so a lot of people visited the location in Hida. This place is now known as a "sacred place of animation" (アニメの聖地). Also, many characters using stars and universe motifs have appeared so far. Sailor Moon, Space Battleship Yamato, Galaxy Railway 999, and so on. Collaboration with such "Anime Tourism" is also being considered. The Animation Tourism Association certifies the 88 Sacred Places of Anime. "Japan's 100 famous mountains" (日本百名山) is also popular. As Sora tourism, we try to accredit sites as a "hundred starlight sky spot".

G-SATELLITE project is underway to show Gundam's support for the Tokyo Olympics 2020 from space. A model of Gundam will be sent to the ISS to send a message of support from the ISS to the Olympics. (Fig.5.) <https://participation.tokyo2020.jp/jp/oneteam/08.html>



Figure 5. G-SATELLITE project

9 “Sora Gourmet”

Gourmet food is an indispensable part of traveling.

Gourmet in Space: Clearing the conditions of the special environment of the universe and developing space food has been a "defined mission" of space food development so far. In addition, it is expected to take on the challenge of "challenge free mission" to create original "gourmet" using the space environment.

Gourmet on Earth: Various "gourmet" creations on Earth with motifs of the Moon, stars, and celestial bodies are gateways of dreams for space travel. With the realization and expansion of space travel, curiosity and creativity will not be exhausted in this way of enjoying "three-star sora gourmet".(Fig.6.)



Figure 6. Sora Gourmet

There are already many kinds of confectionery using a Moon motif. Tsukimi soba ("Viewing-the-Moon soba") including a raw egg-yolk is a famous example of this. "Tsukimi burger" has also become popular.

The Sora Tourism Promotion Council held a "Hoshitori Star Night" at the Tottori Sand Dunes in Tottori City, Tottori Prefecture on November 21st (Sat) and 22nd (Sun), 2020, as part of the Japan Tourism Agency's "New Tourism". At this event Sora Gourmet ® was first released in Japan. Sora Gourmet ® is a cuisine that uses the motif of the universe and comprises ingredients from the Earth. A total of 13 items of "arrangement," "vessel," and "device" that enable guests to enjoy Tottori's food culture, while having a special feeling reminiscent of "SORA", and 2 confectionery items were offered. In order to create a story that connects each item to "SORA" as a dish served in a special space, the dishes, ingredients, cooking methods, production, etc. that are different from an ordinary menu, were created. The chef of "Tottori Daizen", who also serves as a cooking class instructor at a popular local restaurant, also came up with ideas and thoughts about naming. In particular, the two chefs focused on how to achieve a "sea of clouds" and "three kinds"; how to select the ingredients; and how to make the dishes interesting, including the production. The selection of dishes has become a dinner course that has been carefully selected over time.

10 "Co-enjoyment"

Moon travelers and Moon residents join "together" instead of separately, and enjoy together "Co-enjoyment", which doubles the appeal of "entertainment and play" on the Moon. "Co-creation" has recently attracted attention in the space business world. In addition to the collaboration of technology and know-how in manufacturing, "Co-enjoyment" would be an example of significant "co-creation". By connecting with family and friends online from Earth, Moon inhabitants will be able to share valuable experiences such as meals and attractions together. It is interesting to take a bird's-eye view of the three zones of the Earth and the Moon, including the ISS and Gateway, which are the bases between them.

11 3 zone Space Integrated Resort concept

First, let's consider the integrated resort (IR) concept. This is a complex tourist attraction facility that integrates MICE facilities such as international conference halls and exhibition facilities, hotels, commercial

facilities, restaurants, theaters, movie theaters, amusement parks, and sports facilities. Overseas, casinos may also be added, but the general IR concept is that various attractive spots are gathered in one area.

In 2020, Space Port Japan announced the Space Port City concept. It has the character of an IR facility because it has commercial facilities such as a space information dissemination base, amusement facilities, and restaurants. This Port + collective Space IR facility does not end in only one zone on the Earth, but is combined with the Moon Port and lunar tourist facilities (Moon City) and the ISS and Gateway. It can be regarded as a concept consisting of three zones. As a result, its appeal grows many times. Furthermore, it will be even more magnificent by constructing a mechanism that allows many people to participate without visiting this zone, via the Internet in addition to these three zones.



Figure 7. 3 zone Space Integrated Resort concept

Regarding this 3 zone Space Integrated Resort concept (Fig. 7.), each component and the protagonists there are as follows.

11.1 Earth: Visitors to Space Port City (SPC), and people from all over the world who are connected via the Web.

In the SPC concept, contents, facilities, and functions that meet dreams and expectations about space are organized into three categories: "touching space," "going to space," and "playing in the future," and are drawn as a total of 24 content areas. In addition, the enjoyment of space travel is captured on three time axes, and its appeal is concretely shown.

"Until the day: Preparation period before going on a space trip"

"The day: The day you actually head to space"

"After the day: After the space travel experience"

Not only people who visit SPC such as space travelers and their families and friends, but also people who enjoy the contents provided by this SPC on the Web will gather from all over the world.

11.2 Outer space: Space travelers enjoying a space stay at the ISS Hotel and Gateway Hotel, and space travelers on the way from the Earth to the Moon.

In August 2020, KIBO STUDIO opened on the ISS, and the world's first two-way live broadcasting between the ISS and the Earth was realized. In addition, Sony announced the joint development of a satellite camera with the University of Tokyo and JAXA for the "Space Impression Experience Project". In this way, efforts to deliver performances and images to the Earth in real time have begun. In the future, following KIBO STUDIO, GATEWAY STUDIO will be opened.

11.3 Moon: In Moon City, people who live on the Moon welcome Moon travelers as homestays.

The technology of communication and broadcasting will continue to evolve, and by the time 6G or 7G appears next to 5G, MOON STUDIO will realize live broadcasting without worrying about the time difference. The "residents" and "visitors" will be enjoying "the same time experience" together in real time, not only with each other but also with space enthusiasts from the Earth. As one of the scenes, the state of the New Year's party in space is depicted by illustration of the concept presented by SPACE FOOD SPHERE.

12 Moon and Earth "Gmoonbal" Area Concept

Let's take a closer look at the 3 zone Space Integrated Resort concept and consider it as comprising an economic zone, a commercial zone, and a living zone.

The first live space broadcast in Japan began on November 23, 1963, with a shocking broadcast of the assassination scene of President Kennedy. It was called a "space relay" because it was relayed by an artificial satellite in outer space more than 100 km above the ground, but it is now called "satellite relay". This is because the perception that satellites are orbiting in "outer space" has become weaker. Furthermore, satellite network infrastructure that provides telecommunication, GPS location information navigation, and live weather information is recognized as one infrastructure together with the terrestrial communication and broadcasting network infrastructure on the ground. In the future, this infrastructure construction is expected to expand to zones that include the ISS, Gateway, and even the Moon.

In 2019 the "Lunar Orbit Platform Gateway" plan has been announced. Along with this gateway, communication satellites will be installed in lunar orbits, and a network infrastructure connecting the Earth and the Moon (and the space between them) will be constructed in one zone, where obstacles due to distance will be minimized. The name of this ultra-wide area zone may be called "Greater Earth". Here I name it "Gmoonbal zone" that combines Global and Moon as a name that regards the Earth and the Moon as one unit.

13 Further "Marketing" to promote space travel

In June 2019, NASA announced that it would open the door to commercial and marketing activities for the private sector use of the ISS. This has significance as a new phase of space tourism that allows private space travelers to stay on the ISS. The use of the word "Marketing" is important in this context. "Commercial" means the so-called "privatization" of commercial use, in which business that NASA has been implementing is transferred to the private sector. "Marketing" means that as a BtoC business targeting the general public, NASA will encourage efforts to meet the needs and wants of people in the future.

The creation of "Co-enjoyment", a way of enjoying travel and various activities in space advocated in this paper, is a "Marketing" strategy from this BtoC perspective. The Sora Tourism Promotion Council will further promote space travel by encouraging the satisfaction of the needs and wants of the general public as well as the concept of responding to dreams and realizing them.

[references] -----

REFERENCES

- ¹ Society for Space Tourism of Japan, "Introduction to Space Travel", 2018, University of Tokyo Press