



スペースジャパンレビュー編集委員巻頭言 平成24年辰年

明けましておめでとうございます。2012年となりましたが、昨年は3月11日東日本大震災という大自然災害に見舞われ、多くの人命が失われたばかりでなく、原子力発電所の大事故も重なり極めて多数の避難者の出現という前代未聞の大惨事に見舞われた。これらの災害により、我々日本人の生活態度ばかりでなく、科学技術に対する考え方に大きな影響があったと思う。このような大災害の特に初期段階で、衛星通信は極めて頼れる技術であることを多くの関係者の努力により示された。Space Japan Reviewは引き続き皆様のご協力により役立つ情報を発信させていきたいと思っております。引き続きご支援をよろしくお願い致します。

編集顧問 飯田尚志

A Happy New Year! The new year of 2012 has come, but the last year was a special year for us Japanese because we were struck by the East Japan Great Earthquake on March 11, 2011. Many people were killed or evacuated from such a big natural disaster. Furthermore many people were evacuated from the big accident of nuclear power generation plants. I think that these disasters influenced our Japanese to change not only our philosophy of life but also our thought about science and technology. At a particularly early stage of such a great disaster, it was shown that the satellite communications were extremely reliable technology by the effort of many people concerned. We would like to continue transmitting the useful information through the Space Japan Review. We appreciate your continuous support for the JFSC.

Takashi Iida, Editorial Advisor

本年もよろしくお願い致します。
まずは昨年の東日本大震災並びに福島第一原発事故で被災された方々の、一日も早い生活復旧を祈念いたします。本誌各号の特集記事にて震災後の衛星通信の活躍ぶりが報じられましたが、災害時ならびに危機管理に於ける衛星通信の最大限の利用について、各機関にてぜひ全面的な総括のうえ、今後に備えて頂けることを切望致します。日

本企業のトルコ通信衛星の受注やベトナム宇宙開発の支援、準天頂衛星のトータルシステム化への予算化着手など、本年以降への明るい話題も出ており、本誌も微力を尽くせればと念じております。

編集顧問：植田剛夫

Wishing you a peaceful New Year 2012 !

First of all, let me hope the recovery of safe and usual life for the people who lost the home and properties by the disaster in last March. As reported in several issues of "Space Japan Review" published last year, satellite communications took the important roles after the huge disaster in Japan last year. It is requested that the situation and the result of the utilization of satellite communications during crisis are completely reviewed by the related organizations and necessary means will be taken in preparation for the future disasters that will certainly come.

Last year, some bright topics for the new year such as the award of Turkish communications satellites by Japanese firms and the initiation of national budgetary assignment for the quasi-zenith satellite system have been reported. "Space Japan Review" wishes to do what we can to support the growth of the satellite communication business and technology.

Takao Ueda, Editorial Advisor

新年を迎えるにあたり皆様のご健康とご多幸をお祈り致します。日頃SJRのご愛読ありがとうございます。

昨年は、東日本大震災と福島原発による未曾有の複合災害で大混乱の中、其の対策と復興に懸命に努力された年でした。私も現地仙台に関係者のお見舞いに参上し地震・津波被害の甚大さ恐ろしさを実感いたしました。

又、モバイル通信を含め地上通信設備が甚大な被害を受けて通信不能の状態に陥り、災害時の通信機能の維持・活用についていろいろ議論されました。そんな中でWINDSやETS-VIIIなど通信衛星が非常災害時の通信機能維持に貢献したことが話題となり、或る機関によって活躍した状況が報告され、その必要性が広く認識されました。

このような大きな災害の直後でしたが、JFSCが主催者となり11月後半にAIAA ICSSC 2011が無事奈良にて開催されましたことは、米国などKeynote Speakerの招請を分担した委員の一人としてほっとしております、関係者のご協力に対して心よりお礼申し上げます、有難うございました。

今年は日本復興の為国民一丸となって努力する年であります。WINDSの利用実験も順調に進み、AIAA ICSSC 2011でもその成果が発表されました、環太平洋地域との協力を考慮に入れ、非常災害時の通信の必要性も新たに認識され、ETS-VIIIの発展版STICS衛星など高度衛星通信技術の開発の必要性が認められ推進されることが期待されています。今年もSJRをご愛顧頂きますようお願い致します。

特別顧問：北爪 進

New Year Greeting from SJR editing committee member

I wish you and all subscribers to have great New Year and happiness; I express my sincere appreciation for your interesting in our SJR over the year. In the last year, it was most difficult time for Japanese. We have the significant Disaster by Eastern Japan Great Earthquake and Tsunami. I was impressed that the unbelievable scenery come to my eyes from the place I visited around city of Sendai where the resident area of friend of mine after the disaster. It was happened that all communications facility was broken except satellite communications channel. However, there was great news for us that both WINDS and ETS-VIII Communications Satellites have contributed to keep the emergency communication channel between inside and outside of disaster area. It shown that satellite communications is great media for emergency communications establishment. During this critical situation, AIAA ICSSC 2011 was held at Nara in Japan around end of November successfully. I, as a member of organizing committee, appreciate all of Keynote Speaker and Audi-

ence who attend this event, even the circumstance is not good for visitors. The application experiment of WINDS like 1.2Gbps transmission through satellite was presented at the AIAA ICSSC conference successfully. I expect that successor of WINDS experiment satellite and successor of ETS-VIII like STICS Satellite system should be developed in near future. The communications technology in space is essential for any kind of space application project not only observation satellite but also deep space exploration project. This is good news for us to show the further interesting of the development activity in the field of the satellite communications by Eastern Japan Great Earthquake and Tsunami Disaster. It is expected to develop the sophisticated technology for the advanced satellite communication technology. I expect that it makes Japanese nation interesting into space development activities. Promotion of the Asia Pacific region community is one of main policy of the new administration which will expect for cooperation at a regional level including development countries in Asia with harmony, and the sharing of responsibility to arise in the area of space communications development.

Look forward to interest the activity of SJR in this year, too.

Susumu Kitazume, Editorial Adviser

あけましておめでとうございます。昨年は大津波、原子炉事故と大震災があり、日本にとっては、大変な年でした。この困難な状況の中で、災害現場のデータ収集、緊急用通信回線の確保、通信網の復旧等に宇宙技術が広く活用されたことは、本誌でも紹介してきたところですが、宇宙技術の重要性が再確認されたと思います。準天頂衛星「みちびき」の成功のもとに準天頂衛星計画が政府・与党会議で優先事業として選定されました。日本における宇宙技術の活用、発展がますます進むことを期待したいと思います。

編集顧問 鈴木良昭

A Happy New Year! Last year was a very tough year for Japan, because of the large scale disaster by the world beating earthquake and the subsequent big Tsunami and the nuclear reactor disaster. However under these terrible situation, space technologies such as remote sensing and satellite communication technologies were widely used for collecting the data of the disaster site, securing emergency communication links, and restoring damaged communication networks, as introduce in our previous SJR issues. I think the importance of the space technologies was reconfirmed through these practical usages. Recently, the construction of the Quasi-Zenith Satellite System was selected as a priority project at the government level meeting, based on the success of the first Quasi-Zenith Satellite "Michibiki". I look forward to further progress in the space technology development in Japan.

Yoshiaki Suzuki, Editorial Adviser

編集委員会の一員として1年が過ぎました。記事を執筆頂いた方々へ、お忙しい中でのご快諾に感謝します。面白い情報をお伝えできるよう、本年も記事の編集に努めます。ご支援をよろしくお願いいたします。

編集委員 高山佳久

One year has passed since I became a member of the editorial committee of AIAA/JFSC Space Japan Review. I appreciate the authors' kind agreement to write the articles. I'd like to try to provide interesting information in SJR.

Thank you for your support for the JFSC.

Yoshihisa Takayama, Editor

明けましておめでとうございます。

去年は、震災と原発事故に翻弄された年でしたが、世界的にも激動の年でした。各地で大規模な災害、中東の政変、独裁政権の崩壊、欧州、米国など先進国での経済危機など10年分の異変が一度に起きたといっても過言ではないでしょう。衛星・宇宙の分野に目を転じると、日本においてこれらが再評価された年であったと思います。衛星通信や観測衛星は災害復旧時に持てる力を最大限に発揮し必要性が再認識されました。こうした事が、緊縮財政にも関わらず後継の観測衛星開発や、測位衛星整備費用を含む宇宙関係予算の閣議決定を後押しするとともに、宇宙開発を国の重要な政策の一つに押し上げる結果になったと感じます。今後、日本の宇宙産業全体が活性化することを期待します。SJRでは、引き続き衛星通信・放送関係を中心にさまざまな情報を発信していきたいと思っております。皆様からのご指導、ご支援のほどよろしくお願い申し上げます。

編集委員 大幡浩平

A happy new year!

Last year, I had sense of being bombarded with the nuclear accident caused by The Great East Earthquake. From the global standpoint, it was also a year of upheavals. Not only several natural disasters, there were also many political upheavals in number of despotic states including Middle East and also there were economic upheavals in Europe and the U.S. It is no exaggeration to say that the colossal catastrophes of a magnitude that comes once in decades came at a same year. As for satellite communications and satellite observations system in Japan, they have played great roll in disaster relief activity and that lead to reevaluation of space development projects. The fact that in spite of national austerity plans, Japanese cabinet approved FY 2012 budget for development of next observation satellite and GNSS shows that space development become one of the important policies in Japan. I hope that these development projects stimulate whole Japanese space industries.

I would like to continue bringing interesting and useful articles focusing around satellite communication and broadcasting through the Space Japan Review. We will appreciate your continuous help and encouragement.

Kohei Ohata, Editor

明けましておめでとうございます。

久しく衛星通信分野から離れていましたが、昨年9月に編集委員を拝命し、復帰しました。12年振りにICSSC-2011に参加し驚いたことは、Kaバンドというキーワードで、ビジネスモデルを構築する発想があり、実際にそれを事業展開していることでした。我が国が世界に先駆けて研究開発し、実用化も果したが、大容量の需要のない時期で結局、時期尚早で終了したことを思い返すと、現代の映像需要の増大がいかに凄まじいかを思い知らされます。

一方、昨年我が国は未曾有の大災害で、多数の方々が命を落とされ、多くの人達が未だ厳しい生活を余儀なくされています。特に災害時の通信不能は、人々を恐怖に陥れました。大容量だけではなく、いつでも、どこでも、どんな時にも繋がる携帯通信システムが待ち望まれます。

今年は、海外の動向だけではなく、日本の目覚ましい復興を発信していきたいと思っておりますので、皆さまのご支援をお願い申し上げます。

編集委員 門脇 隆

Happy New Year 2012! May this year be happy and fruitful.

I came back to the satellite communications field as a member of the SJR editorial board last September after a long period of other business area.

What I was surprised in ICSSC-2011 held at Nara in Japan was that there were some satellite communications service providers to create the new business model and to develop the market by

featuring the term of Ka-band. I really learned the growth of the video demand today, remembering that the Japanese company had to give up the usage of Ka-band because of no demand for such a high data rate service in 1980's.

On the other hand, the Japanese people have been faced with unprecedented miserable disaster in last year and at that time they were much confused and worried by blackout of the cellular phone network. Not only for video demand but also for voice channel even in disaster, the cellular phone service companies would be expected to provide the service continuously. We would like to expect and to report the remarkable rehabilitation after the Great East Japan Earthquake this year, so it would be much appreciated for your continuous support.

Takashi Kadowaki, Editor

昨年は東日本大震災、福島原子力発電所事故、豪雨による洪水と多くの自然災害による危機に見舞われました年でした。被害をお受けになった方々には慎んで哀悼の意を表したいと思います。これら大災害にあたり情報通信システムは社会インフラとしての重要性が強く認識されました。東日本大震災後、衛星通信技術の活動をSpace Japan Reviewで速報として連載いたしました。世界的な視野で見ると自然災害は毎年どこかで発生し、情報通信技術が重要な役割を果たしています。次にどのような技術が必要か、本誌では衛星通信技術、無線通信技術の観点から考えていきたいと思います。

昨年は11月28日から12月1日ホテル日航奈良、なら100年会館でAIAA ICSSC-2011を開催いたしました。東日本大震災後、日本での開催が可能か多くの議論がありましたが、災害時にその重要な役割が期待されている衛星通信の国際会議を開催すべきとの意見で開催することにしました。委員会総力で開催にこぎ着け100名を超える参加者を得て成功裏に開催することができました。プラナリーセッションやコロキウムでも自然災害時における衛星通信の役割が、特に東日本大震災時における実際の活動が発表されました。開催状況は本誌にてご報告いたします。今後もその時代にあった新しい企画を立てて発行を続けていきたいと思います。皆様のご支援をよろしくお願い申し上げます。

編集委員長 若菜弘充

Last year, we have met a lot of natural disasters such as the East Japan Great Earthquake, the accident of Fukushima nuclear power plants and flash floods by deadly downpour. We would like to express our deep grief and offer heartfelt condolences to the people who receive damages due to natural disasters. It was recognized that the telecommunications system was of strong importance as the society's infrastructure. After the Great Earthquake, Space Japan Review has issued activities of satellite communications as flash reports.

From 28 November to 1 December 2011, AIAA ICSSC-2011 was held in Nara, Hotel Nikko Nara and Nara Centennial Hall, Japan. Although several international conferences, which were scheduled to be held in Japan, were suspended or changed their venues out of Japan, the conference committee of ICSSC-2011 decided that the conference should be held at the same time and the same place as planned. In Colloquium and Opening Plenary Session, "What we have done", what satellite communication and satellite remote sensing community have devoted just after the Great Earthquake were discussed. We would like to continue the publication of Space Japan Review, which will issues new articles just in time. We appreciate your continuous assistance.

Hiromitsu Wakana, Editor-in-Chief