



International Committee on
Technical Interchange for
Space Mission Operations and
Ground Data Systems



SpaceOps Newsletter – Fall 2021

Dear **SpaceOps Participant**,

You have received this issue of the SpaceOps Update e-newsletter because you have attended a past SpaceOps Conference or have requested to be added to the SpaceOps mailing list. The SpaceOps Update contains information of interest to the space operations community. If you do not wish to receive this e-newsletter in the future, please unsubscribe using the button at the bottom of the email.

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SpaceOps 2021 – Virtual Edition! Thank you all for participating!



SPACEOPS 2021 VIRTUAL EDITION

THE 16TH INTERNATIONAL CONFERENCE ON SPACE OPERATIONS
3-5 MAY 2021

In 2016 SANSА won the bid to host the 2020 International Space Operations Conference in South Africa – a first for South Africa and the African continent. The official announcement was made in Marseille, France during the 15th International Space Ops conference.



Post the announcement, the team at SANSА put metal to the pedal and worked tirelessly for two years to ensure the absolute success of the conference. It was our turn to host experts from around the world to not only showcase what South Africa has to offer to the global space industry, but how SANSА remains a key player in the Space Operations fraternity. Most importantly, we were able to reaffirm our capabilities to compete globally and deliver on world class events.



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Unbeknown to all of us, in early 2020 the whole world was suddenly faced with a global pandemic and many things changed drastically. What we knew as normal was no longer possible. The world was under lockdown, people were barred from travelling, and gatherings of any sort were banned. It was most unfortunate as this possibly meant that SpaceOps 2020 would be cancelled. With just under 50 days before the execution of the conference, a decision was taken to postpone the conference to 2021. It was a huge blow!

In noting the importance of this conference for the industry, the organising committee took a decision to continue with hosting the conference using an online platform. This meant that the conference would go ahead without people physically meeting, but the opportunity to exchange and engage on industry matters as well as network via a virtual platform became a reality.



SpaceOps 2020 transformed to **SpaceOps 2021 – Virtual Edition**, the first ever international online conference on Space Operations. Initially, the task of hosting a virtual event seemed daunting to the team, but with the expertise and support of the appointed PCO and technical team, SANSa delivered a world class online conference.

SpaceOps 2021, enjoyed **the biggest participation of delegates in the history of the SpaceOps conference**. For the technical sessions, 343 papers were submitted and 299 confirmed and presented. With more than **2000 virtual participants** from around the globe who registered for the first ever fully Online Conference.



The virtual platform ran successfully with **over 1000 visitors logged on** at any given time. The participants were not all in one session together, but in various live, pre-recorded sessions throughout the 4 days. We received new registrations throughout the Conference.

We received an **average of between 200-400 participants in each technical session**. The exhibition worked very well, with many participants viewing all the pre-loaded brochures and website links as well as engaging with all the exhibitors.



On-demand portal was extremely busy for the duration of the 3 days, with attendees watching videos throughout the day. The overall, the performance of the platform was great.



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Congratulations and thank you to every member of the various organising committees. Your hard work and dedication paid off and ensured that SpaceOps 2021 – Virtual Edition was an enormous success!

The baton has been passed on to the Mohammed Bin Rashid Space Centre (MBRSC) in Dubai, who will host the next Space Operations conference in 2023. We look forward to seeing you there!

In Memoriam of Dr. Rolf Mamen

Dr. Rolf Mamen – Director General of Space Operations at the Canadian Space Agency (retired in 2007).

We were saddened to learn of the passing of Rolf Mamen on July 3, 2021, at the age of 76. He was a valued member of our community, and friend to many of us.

Rolf Mamen joined the international SpaceOps organization as Executive Member in 2000 representing the Canadian Space Agency (CSA).

From 2002 to 2006 he was one of the two SpaceOps co-chairs leading the preparation of the 8th International SpaceOps conference hosted by CSA in Montreal in 2004. That conference featured 312 papers and presentations and remained a highlight in the memory of all participants. The Montreal conference set a new standard for SpaceOps with the high quality of the selected papers and an impressive accompanying program, establishing the format as it is today.

During his time leading the SpaceOps organization, Dr. Mamen actively supported the creation of the SpaceOps Awards. He was instrumental for the success of negotiating a conference service and custodian contract with the AIAA Organization for the SpaceOps Organization.

He also initiated the restructuring of the SpaceOps committee meetings by introducing several working groups with focus on specific topics.

Rolf Mamen earned a B.Eng. (Hons) in electrical engineering at McGill University, Montreal, in 1966 and a Ph.D. in electrical engineering from Imperial College, University of London, U.K. in 1970.

His professional career began with a short consultancy with RCA-Limited relating to the HERMES communication satellite. He then joined the Canadian Department of Communications (DOC) as a research scientist at the Communications Research Center (CRC). His professional activities within CRC dealt predominantly with satellite orbit- and attitude determination/prediction and with inertial navigation. He gained experience in space program management at DOC Headquarters and then at the R&D branch of the Department of National Defense. He returned to the CRC where in January 1982 he assumed responsibility for the management of the David Florida Laboratory (DFL), a Canadian facility for the integration and environmental test of spacecraft. Since that appointment DFL has successfully supported the projects ANIK-D, BrazilSat, Olympus, ANIK-E and M-Sat satellites. DFL also provided test support to the Mobile Services System (MMS), Canada's contribution to the International Space Station, and prepared Radarsat-2. Upon creation of CSA, the DFL was transferred to this new agency.



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Rolf Mamen was born in Sudbury, Ontario, Canada as the second of six children, and moved with his family from mining camp to mining camp. Rolf was very proud of his ancestor Bjarne Mamen who joined the ill-fated Canadian Arctic Expedition in 1913-1916 (last voyage of the Karluk). The more Rolf Mamen was excited to join the initial mapping campaign of the Antarctic Mapping Mission NASA-JPL/CSA Radarsat mission in 1997. For this mission, CSA's RADARSAT-1 satellite trained its imaging radar on the outer half of the continent twice during each of three consecutive 24-day periods. "The mission was a challenge for us because we had to accurately navigate the satellite to within a few hundred meters of its nominal track on each orbit," said Rolf Mamen after completion of the first mission.

The SpaceOps organization owes a huge debt of gratitude to Rolf. He will always be remembered as a strong supporter and friend of the SpaceOps family as exemplified by these heart-felt memories by his colleagues:

"I remember the first time I met Rolf in 2000. Very level headed and helpful. SpaceOps benefited tremendously by having him on the Executive Committee." (Andy Downen, NASA/JPL, Pasadena, USA)

"I will remember a gentleman who was always on the positive side of the discussion." (Jean-Marc Soula, CNES, Toulouse, France)

"I have many happy memories of Rolf and our SpaceOps conferences and events. He was very professional and a great contributor to our organization." (Trevor Sorensen, University of Hawaii, Honolulu, USA)

"Rolf was a very special person, a role model for my career, and we are so glad we were able to make his acquaintance and share precious time." (Thomas Kuch, DLR/GSOC, Munich, Germany)

"I met Rolf in 2002, when I joined Satellite Operations organization at the CSA. He impressed me with the breadth and depth of his knowledge, his contagious smile, and athletic prowess (he was an elite cross-country skier, cyclist, soccer player, kayaker and loved other outdoor activities). I feel blessed to stay in-touch with him even after his retirement from the Agency and continuing to benefit from his wisdom." (Guennadi Kroupnik, CSA, Montreal, Canada)



Rolf Mamen/CSA (left), Trevor Sorensen/U of Hawaii (back), Joachim Kehr/DLR (front) and Claudio Canu/ASI (right)
Presentation of the first SpaceOps Award in Rome 2006 to Joachim Kehr.



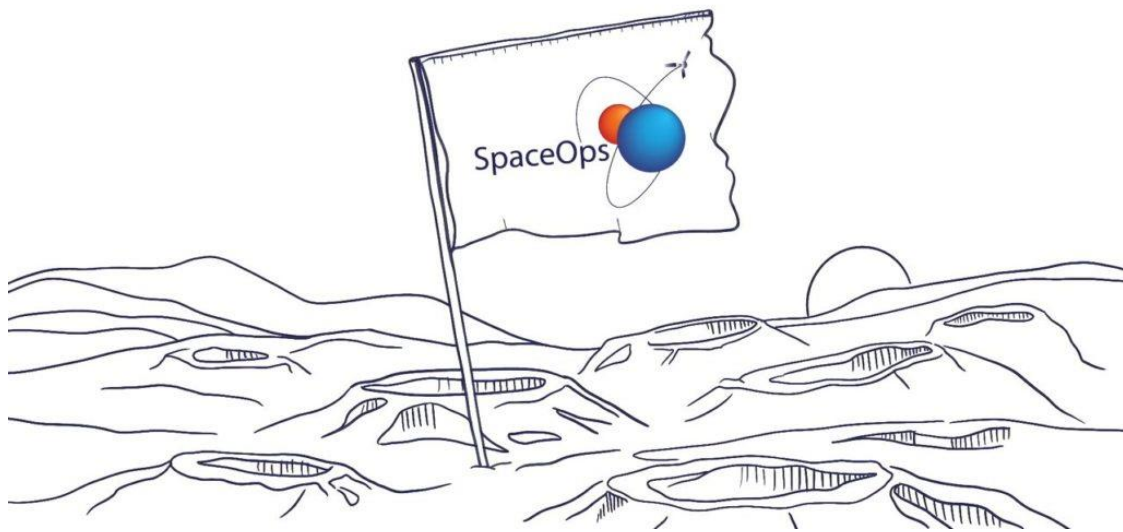
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The SpaceOps Video!

A short, animated movie, presented on the occasion of the first Virtual SpaceOps Conference in 2021, to illustrate the organization's history, goals, and role in the space operations sector.

Please enjoy it and feel free to share it with you friends and colleagues!



Committee-at-Large (CAL) & ExCom Meetings

With the final goal of allowing every member of the Committee-at-Large (CAL) and Executive Committee to take part in the traditional SpaceOps Fall Meetings it was decided to postpone the hosting of EUMETSAT and ESA to 2022 and held the meeting virtually.

The Agenda will extend for three days, from Monday 15 to Wednesday 17 November and will allow the Cal and ExCom to have all the needed meetings including the separate working groups meetings.

The community looks forward to the next SpaceOps Spring Meetings 2022, to be held in Dubai, in order to meet once again in person and visit the future host country of the SpaceOps 2023 Conference.



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Join us!

Join the SpaceOps Organization!

As the space operations community grows, we encourage your organization to join the SpaceOps Organization. The SpaceOps Organization has recently created a new membership category for industrial members and other interested organizations.

Participation in SpaceOps as a Partner or a Member will bring you close association with the agencies and partner organizations focusing on space operations, allow you to help determine the content of the biennial conferences, and help shape the future of the community.

Please forward this information to your colleagues and co-workers so that they too can stay on top of what is happening in space operations!

To be added to the SpaceOps mailing list or for more information about becoming a Partner or a Member of the SpaceOps Organization, please email the SpaceOps Secretariat at spaceops@iafastro.org. There are no membership fees.

For more information about the SpaceOps Organization visit <http://www.spaceops.org>

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What Is SpaceOps?

- SpaceOps is the premier community of global space operations professionals.
- SpaceOps has representatives from space agencies, organizations, industry, and academia involved in all aspects of space operations.
- SpaceOps serves as the forum and catalyst for exchange of the latest technical, managerial and operations knowledge and ideas.

Why Should Your Organization Participate?

- You will have access to experts in all fields related to Space Operations.
- You will be able to contribute and influence trends and practices in Space Operations.
- You will have opportunities to contribute to SpaceOps Conferences: to meet, discuss, and exchange ideas with other experts.
- You can participate in specifically-themed SpaceOps Workshops that explore current “big issues” in detail which can guide their future strategies.

For More Information:

Visit www.spaceops.org
Contact the International Astronautical Foundation (IAF) at:
spaceops@iafastro.org

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