

SPACE SEMINAR

Transatlantic Cooperation on
Space Technology and
Policy in the Arctic



14. NOVEMBER

Norwegian - US space
collaboration

Current possibilities and
challenges

The future of a NO-US space
collaboration

15. NOVEMBER

Strategic Outlook

Civil-Military Cooperation and
Dual-Use

Access to Space as a Strategic
Asset

Space Activities and Regional
Governance in the Arctic

16. NOVEMBER

Exploration

Sounding Rockets

Space Science



Washington, D.C.

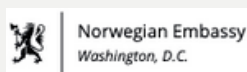
Royal Norwegian Embassy &
George Washington University



November 14th - 16th

Organized by:

In partnership with:



KONGSBERG



TUESDAY NOVEMBER 14TH

ROYAL NORWEGIAN EMBASSY

08.30	REGISTRATION AND COFFEE
09.00 - 09.30	WELCOME AND INTRODUCTION Welcoming Words Ambassador Anniken Krutnes, Royal Norwegian Embassy. Welcome talks Christian Hauglie-Hanssen, Norwegian Space Agency (NOSA) and Bob Cabana, National Aeronautics and Space Administration (NASA). Keynote: Space Collaboration Between Norway and US – a Historic Overview Pål Brekke, NOSA
09.30 - 10.45	NORWEGIAN - US SPACE COLLABORATION - SOME SUCCESS STORIES Working Together. Connecting Space and Ground the Norway - NASA/NOAA Relationship Rolf Skatteboe, Kongsberg Satellite Services (KSAT). Space Observations for Operational Earth Observational Products for the Arctic Region Ed Grigsby, National Oceanic and Atmospheric Administration (NOAA), National Environmental Satellite, Data, and Information Service (NESDIS). Arctic Satellite Broadband Mission (ASBM) Oddveig Tretterud, Space Norway. The RIMFAX Instrument on the NASA Perseverance Rover Svein-Erik Hamran, University of Oslo (UiO)/ Norwegian Defence Research Establishment (FFI). NASA Sounding Rockets From Norway Dan Moses, NASA HQ.
10.45	COFFEE BREAK
11.15 - 12.30	CURRENT POSSIBILITIES AND CHALLENGES Transition Into Green Propulsion for Space Applications Kristian Lium, NAMMO. Climate - Arctic Collaboration Thorsten Markus, NASA. Opportunities Within Maritime Surveillance and Defence Harald Aarø, Kongsberg Defense and Aerospace (KDA). Canadian Space Collaboration With Norway Jill Smyth, Canadian Space Agency/ Embassy of Canada to the United States. Norwegian Position on Climate & Sustainability Action - the Arctic in Focus Ole Morten Olsen, NOSA.
12.30	LUNCH
13.15 - 14.00	THE FUTURE OF A NO-US SPACE COLLABORATION Space Geodesy - The Technique that Enables Earth Observation Stephen Merkowitz, NASA and Per Erik Opseth, Norwegian Maritime Authority (NMA). Norway's Approach to a Joint Space Program Christian Hauglie-Hanssen, NOSA. Andøya Space - Status Spaceport Ketil Olsen, Andøya Space.
14.00 - 15.00	PANEL DISCUSSION: HOW TO STRENGTHEN TRANSATLANTIC COLLABORATION?
18.00	RECEPTION - House of NADIC, 1201 Wilson Blvd, Arlington, VA22209, 27th floor

WEDNESDAY NOVEMBER 15TH

GEORGE WASHINGTON UNIVERSITY

08.30	REGISTRATION AND COFFEE - A LIGHT BREAKFAST WILL BE SERVED
09.00 - 09.20	WELCOME AND INTRODUCTION Welcome: Introduction of the Day and Practical Information Per Høyland, NOSA. Opening Remarks Bård Ludvig Thorheim, Member of the Norwegian Parliament.
09.20 - 10.00	STRATEGIC OUTLOOK Keynote: Space and Security in the Arctic Jonas Vidhammer Berge, Norwegian Institute for Defence Studies. Keynote: The Evolution of U.S. National Security Space Strategy Dr. Aaron Bateman, Space Policy Institute at George Washington University (GWU).
10.00 - 10.15	OPENING SPEECH - SCOTT PACE, DIRECTOR, SPACE POLICY INSTITUTE
10.15	COFFEE BREAK
10.30 - 12.00	CIVIL-MILITARY COOPERATION AND DUAL-USE Keynote: The Role of Cooperation in Enhancing Resilience and Norms Dr. Brian Weeden, Secure World Foundation. Keynote: Arctic Satellite Broadband Mission Jeremy Novosad, Northrop Grumman. Keynote: Enhanced Civil-Military Cooperation - the Norwegian Approach Col. Bodding, NOR Armed Forces/ Space. Panel discussion
12.00	LUNCH
13.00 - 14.30	ACCESS TO SPACE AS A STRATEGIC ASSET Keynote: Andøya Spaceport as a Strategic Asset Ketil Olsen, Andøya Space. Keynote: Opportunities for USSF - Norwegian Commercial Industry Partnerships Merric Garb, United States Space Force (USSF). Keynote: Policy/Perspectives from the Norwegian MoD Ole Felix Dahl, Department for Security Policy and Operations, Norwegian Ministry of Defence (MoD). Panel discussion
14.30	COFFEE BREAK
15.00 - 15.45	Keynote: Maritime Domain Awareness Arne Gjennestad, KDA. Keynote: Space Industry Development in the Arctic Innovation Norway Keynote: Smaller Satellites, Bigger Return Freddy Pranajaya, Utias SFL
15.45 - 16.00	CLOSING REMARKS - Christian Hauglie-Hanssen, NOSA

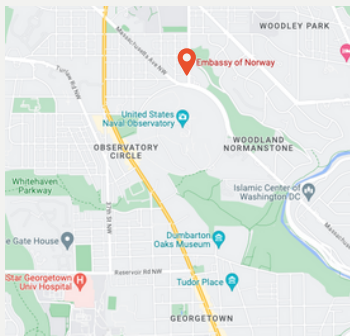
THURSDAY NOVEMBER 16TH

GEORGE WASHINGTON UNIVERSITY

08.30	REGISTRATION AND COFFEE - A LIGHT BREAKFAST WILL BE SERVED
09.00 - 09.10	WELCOME AND INTRODUCTION Introduction Pål Brekke, NOSA.
09.10 - 10.30	EXPLORATION/ SOUNDING ROCKETS/ SPACE SCIENCE US Solar Heliophysics Program Peg Luce, NASA HQ. Norwegian Solar Physics: Status and Prospects Mats Carlsson, UiO. Heating the Outer Solar Atmosphere: From IRIS to MUSE Viggo Hansteen, Lockheed Martin. US Sounding Rocket Program Giovanni Rosanova, NASA Wallops. Norwegian Initiatives to International Cooperation in Sounding Rocketry Kolbjørn Blix, Andøya Space.
10.30	COFFEE BREAK
11.00 - 13.00	EXPLORATION/ SOUNDING ROCKETS/ SPACE SCIENCE RIMFAX and subsurface planetary exploration Svein-Erik Harman, UiO. The EZIE Way of Seeing the Aurora: a Three-CubeSat Constellation Mission Rafael Mesquita, The Johns Hopkins University Applied Physics Laboratory. The STORM mission: Possibilities for Joint Work with Norway Hyunju K. Connor, NASA GSFC (presented remotely). Flight Campaign Over Central America and Caribbean to Observe Terrestrial Gamma-Ray Flashes and gamma-Glowing Thunderclouds Nikolai Østgaard, University of Bergen (UiB). Panel discussion
13.00	LUNCH

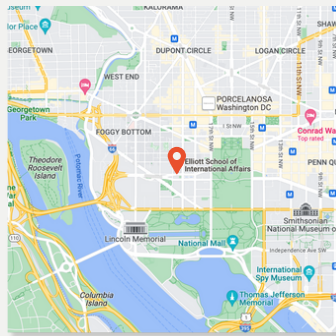
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