



November 2023

# Bulletin



## ONE PM'S FINAL PERSPECTIVE...

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As we approach the end of 2024, MSIAC finds itself in the midst of significant changes. At the October Steering Committee meeting, the MSIAC Steering Committee elected a new Chairman, **Mr Dan Pudlak** from Picatinny to replace **Dr Brian Fuchs** who is retiring. Dr Fuchs did an outstanding job as the MSIAC Chairman over the last 8 years providing leadership and direction, and we wish him the best of luck in his retirement. As Matt Ferran will be moving on in early 2025, Mr Jean-François Fournier (CAN), our next Munition Systems TSO, has arrived on the 4<sup>th</sup> of November. Ms Christelle Collet has moved on to her new job at NATO since mid-September and we are awaiting the arrival of Mr Rémi Blanvillain (FRA) to replace her as the Propulsion TSO. And of course, we are in the process of recruiting our next Energetic Materials TSO and the new Electromagnetic Environmental Effects to Munitions (E3M) TSO.

Further, I would like to take this moment to say my farewell as I will be returning to the Naval Ordnance Safety & Security Activity in the US on the first of November and Mr Chris Hollands will be assuming the role of the MSIAC Project Manager. To the MSIAC staff and all those in the technical community that we support, and of course the MSIAC Steering Committee, I would like to thank you for your support over the last five years. My time at MSIAC was amazing and I appreciate the opportunity I had to grow in my career and be a part of the MSIAC team. As I am not retiring, I am sure that I will continue to see many of you at future meetings and technical events.

All of that said, I am sure that MSIAC will continue to be as busy as ever, providing its member nations with high level products and services supporting technical meetings, conferences, NATO Working Group activities and answering technical questions.

As always, I would like to encourage you to get involved in the MSIAC program of work as we move into 2025 and I look forward to hearing about MSIAC's future achievements.

Chuck Denham

## ...PAVES THE WAY FOR A NEW PM'S FIRST PERSPECTIVE!

Firstly, as the new incoming PM, I want to express my thanks to Chuck for the leadership and stability he has provided MSIAC over his 5 years as the Project Manager. He lead the team through the challenging years of COVID and we managed to continue to provide an excellent service to our member nations. Secondly, to Brian, I echo the comments made by Chuck; your leadership of the Steering Committee has been excellent and I know the whole MSIAC team and its Steering Committee members will miss your presence the next time we meet in the Spring.



Most of you will already know me, either from my time in MSIAC as the Energetic Materials TSO or my previous role in the UK Ministry of Defence, Defence Equipment & Support, where I have been active in providing expert advice on energetic materials to programs, projects and front line commands.

Congratulations to Dan, our new incoming MSIAC Chairman, with whom I have already started the process of guiding a new look MSIAC. I am excited and looking forward to the year ahead as the MSIAC team returns to full strength and as we continue to look to help nations with their munition safety issues.

Since returning from summer leave the team has been busy with preparing and running our workshop on Pushing The Limits: Performance & Safety, very kindly hosted by Steve Struck from AFRL at the Doolittle Centre, Niceville, Florida. Following the workshop, there have been the usual mixture of Fall NATO AC326 Subgroup meetings and our recent MSIAC Steering Committee. As we approach the end of 2024, the team continue to support a wide variety of activities including a significant mission to Australia; supporting TTCP TP-4, participating in the Parari 2024 conference followed by a country visit to finish.

Looking ahead into 2025, I look forward to a period of stability within the MSIAC as we onboard our 3 remaining TSO's to complete the MSIAC team with 7 TSO's for the immediate future. Keep an eye on future announcements and the website for details on the new hires and future MSIAC technical meetings.

Finally, I hope everyone has a healthy end to year and for those celebrating, a good Christmas and Happy New Year.

**Chris Hollands**  
MSIAC Project Manager

## THE NEW MSIAC STEERING COMMITTEE CHAIRMAN

At the SC fall meeting in October 2024, Dr Brian Fuchs handed over his role and responsibilities to the newly elected Chairman, Daniel J. Pudlack. Let us introduce him to you.

### DANIEL J. PUDLACK

Dan has worked for the US Army, Combat Capabilities Development Command – Armaments Center (DEVCOM-AC), at Picatinny Arsenal, since 2003, and has gained an extensive background in the field of munitions safety and vulnerability while working in various R&D groups ranging from Logistics and Packaging to Energetics and Detonation Physics.



Dan currently manages the Joint Service Insensitive Munitions & Energetics Vulnerabilities (JSIMEV) Portfolio, leading a large team of engineers and scientists, and serves as chair for several panels / focus areas, including: TTCP TP4 Energetics in Defects, JANNAF IM Mission Area & Energetic Defect Characterization (EDC) Mission

Area, Ballistics Understanding Working Group (BUWG) Energetics Survivability Focus Area, etc.

Dan has recently been appointed as the DEVCOM-AC Representative for the US Army Insensitive Munitions Board (AIMB) which is a service-rotating chair position, as well as serves the Joint Service Insensitive Munitions Technical Panel (JSIMTP) as the NATO IM Rep and DEVCOM-AC AIMB Rep.

He leads the NATO AC/326 Sub-Group B IM Portfolio Custodial Working Groups, and his efforts are currently focused on the development of the new Insensitive Munitions – Hazard Classification (IM-HC) Harmonization efforts.

Dan graduated from the New Jersey Institute of Technology (NJIT) with his BS in Mechanical Engineering (ME), and from Steven's Institute of Technology (SIT) with his MS in ME with a Certificate in Armaments Engineering. He holds a patent that covers numerous ammunition container venting concepts, several of which are currently being funded for development and demonstration on munitions within the Joint Program Executive Office for Armaments and Ammunition (JPEO A&A) portfolio.

Dan enjoys snowboarding, kiteboarding, boating, and spending time with his 3-year old son.



## MORE FAREWELL'S AND WELCOME'S

As mentioned before, MSIAC has been going through quite some changes in the last 2 years. One of those is that Christelle Collet, our former Propulsion TSO, has moved on in mid-September. Here's a word from her.

### CHRISTELLE COLLET

Sadly, this is my last contribution to the MSIAC Newsletter for my time as the Technical Specialist Officer in Propulsion Technology recently came to an end, as all good things in life do!

I look back to these seven years with the feeling of both personal and professional accomplishment. I am indeed very proud to have been part of the mighty MSIAC team and to have contributed to a number of great achievements over these years, including a Cooperative Demonstration of Technologies in Munitions Health Management (MHM) in October 2019 and the preparation and organization of the very successful MHM lecture series in the 2022 – 2024 timeframe. I also feel proud to have contributed to enrich the MSIAC database with 33 limited reports, 15 open reports, 137 answers to technical questions and 21 conference papers. Aside from these numbers, I see MSIAC and its TSOs as a kind of "hub" which purpose is to connect experts from the different MSIAC nations, and to make their expertise benefit to as many MSIAC nations as possible. This is not something that is easily trackable but I do believe I also contributed to this aspect too, and hopefully, it will inspire other people and nations to join the MSIAC community.

The selection of Remi Blanvillain (currently working at MBDA France) to replace me in the near future makes me very happy. I trust his technical skills and personality will be an excellent match with the current MSIAC team members and with the MSIAC community. I wish him all the best in his future role.

Traditionally, I now have to say that I will miss you all, but I trust that I will get the chance to see some of you again in the frame of my new professional adventures at NATO as a Land Munitions officer in the Defence Investment Division. I didn't go very far as my new office is located in the same wing as the MSIAC offices, same floor, but on the other side of the hallway! The email address to contact me is the following: [collet.christelle@hq.nato.int](mailto:collet.christelle@hq.nato.int). Please feel free to reach out or pass by and say hello whenever you have the opportunity to do so!

With this, I wish long live and success to MSIAC and its community.

**Christelle Collet**  
**Former TSO Propulsion Technology**

Fortunately, we were finally also able to welcome some new staff members. The new TSO's for Munitions Transport and Safety Storage and Munitions Systems have arrived.

## SOCRATES ANGELIDES

Socrates Angelides joined as **TSO - Munitions Transport and Storage Safety**, replacing Martijn van der Voort.



Socrates has a combined industry and academic background as a Structural and Blast Engineer in the UK and is currently a Chartered Engineer with the Institution of Civil Engineers (ICE).

His research has concentrated on the blast response of glass panels (PhD from the University of Cambridge) and developing fast-running tools for predicting blast loads from the detonation of energetic materials (post-doc at the University of Sheffield).

In industry, Socrates has been involved in the assessment of offshore structures (DNV), the development of software for blast load prediction and the formulation of industry guidance for process safety on hydrogen hazards (Steel Construction Institute).

In case you have any questions relating to munitions transport and storage safety, feel free to reach out to him at via the following contact details: either via email [s.angelides@msiac.nato.int](mailto:s.angelides@msiac.nato.int) or phone: +32 2 707 5035.

## JEAN-FRANÇOIS FOURNIER

In early November Jean-François Fournier joined as **TSO Munition Systems**, replacing Matt Ferran.

JF joins us from the Directorate of Ammunition and Explosives Management and Engineering (DAEME) where he was employed as the Senior Qualified Ammunition Technical Authority.



During his employment at DAEME, JF was responsible to conduct and review multiple S3 assessments on various types of munition systems. He was also a member of SG/A IST and participated to some CWGs within SG/B.

Prior to joining DAEME as a public servant, JF served with the Canadian Armed Forces where he completed the Ammunition Technical Officer course and a Master's in Advanced Ammunition Engineering at the Royal Military College of Canada.

If you have any questions for JF, feel free to reach out to him either via email at [jf.fournier@msiac.nato.int](mailto:jf.fournier@msiac.nato.int) or by phone at +32 2 707 84 32.

## MSIAC STOKES FELLOWSHIP ANASTASIA SPEARING-EWYN

Anastasia Spearing-Ewyn joined MSIAC in September 2024 for a six-month Stokes Fellowship under the supervision of Chris Hollands and Dr Kevin Jaansalu.

Following the completion of her PhD in organometallic chemistry, Anastasia joined Defence Equipment and Support, UK Ministry of Defence, as a scientist in 2021. After working in the area of life assessment of munitions for the past three years, Anastasia has taken the opportunity to come to MSIAC to develop her knowledge on the chemistry of energetic materials through collaboration with international subject matter experts.



As part of the Stokes Fellowship, she will be investigating the relationship between in-service surveillance testing and the potential failure modes of composite rocket motors. The aim of this project is to further the scientific community's understanding on which are the key material properties to monitor in order to best inform the life assessment of these munitions. As part of this project, Anastasia has conducted an international survey to identify current best practices within nations regarding the health management of composite rocket motors.

Alongside the project, Anastasia is enjoying her time in Brussels and sampling as many different chocolates as possible.



# MSIAC WORKSHOP

## PUSHING THE LIMITS: PERFORMANCE AND SAFETY

Doolittle Institute, Niceville FL – 9-13 September 2024



One of the key services that MSIAC provides to its member nations is our ongoing program of technical workshops. For the past 30 years these workshops have provided the munition safety community an opportunity to gather and discuss some of the toughest challenges we face; in many cases the results of these workshops have directly influenced the development of NATO policy and standards.



In September this year, over 50 delegates from 12 nations joined the MSIAC staff in Niceville, FL, USA to participate in our latest technical workshop title “Pushing the Limits: Performance and Safety”. The goals of this workshop were to discuss the drivers, trade-offs and challenges affecting both performance and safety of munitions against the backdrop of increased uncertainty in global security. A wide range of topics were discussed including the influence of legislation, policy and regulations on risk tolerance; how to continue improving safety beyond the previous success of IM, and how this may affect performance (if at all); the influences of new technologies and materials; industrial and national drivers towards performance and safety, especially within the context of national attempts to expand

sovereign capability.

Six sessions took place over the course of a week, each focussing on a different topic area. While some very interesting presentations were delivered, the focus of each session was firmly on stimulating discussion and debate between the delegates in an attempt to try and scope the nature of the performance and safety problems we are facing.



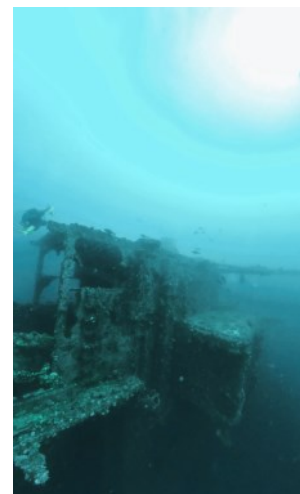
The week was broken up by a visit to the National Naval Aviation Museum at Naval Air Station Pensacola. The workshop delegates were treated to a very informative guided tour by a retired US Navy aviator, and got close-up with hundreds of aircraft spanning the entire history of US naval aviation, from 1910 to the present day. However, the highlight of the day was the fantastic display by the US Navy’s Blue Angels aerobatic team.

We would like to extend our thanks to all of the delegates who made the journey to Florida to participate in these enlightening discussions and contribute to a deeper understanding of the issues we face as a community; and in particular we would like to extend special thanks to the session chairs who donated their valuable time to the development of talking points, and who steered the sessions so expertly. The MSIAC team are working hard to try and capture all of the discussions, key points and proposed actions from the workshop, and hope to issue these as an MSIAC Limited Report early in 2025.

Finally, we would like to thank Steven Struck of the US Air Force Research Laboratory and all the staff at the Doolittle Institute for their hard work realizing the practical arrangements which helped make the workshop so successful.

We are all looking forward to welcoming you to the next workshop – keep an eye on the MSIAC website and newsletter for further details.

**The MSIAC Team**



# AASTP-1 & AASTP-5 COURSE

2024 was another busy year for our consultant Johan De Roos and our guest trainers with 7 courses scheduled throughout the year. Fortunately, MSIAC can still count on the willingness to help of our guest trainers Sean Garner (CAN) and Roland Stern (DEU) who assisted Johan in 6 of the 7 courses. MSIAC extends its sincerest appreciation for their help.

The first course of the year was held at the MoD in Kineton, Temple Herdewycke, UK from 5 to 9 February 2024. The course was given by Johan De Roos and guest trainer Sean Gardner (CAN).

From 13 to 17 May the fourth course was held in Erfurt, Germany, and was lead by Johan and Roland Stern.



Johan and Sean then prepared for the following course in Fort Liberty, Fayetteville, NC, USA from 15 to 19 July.



Course number 2, was held from 8 to 12 April in Calatayud, Spain. Also this time, Johan and Sean were the assigned trainers.

After a summer break, the 6<sup>th</sup> course of the year was hosted by Poland in Bydgoszcz from 30 September to 4 October. This time, Roland Stern assisted Johan again in training the attendees.



The third course soon followed and took place in Breda, The Netherlands. It was a combined Belgian/Dutch course that took place from 22 to 26 April. This time, Johan was the sole trainer.

The last course of the year will take place from 25 to 29 November in Canberra, Australia. Again, Sean and Johan team up to deliver this course together.

MSIAC has recently worked on automating the registration process for these courses. All the details regarding this new registration process, are clearly explained on our website, which you can access via this [link](#). In summary, every person wanting to attend the course, will need to fill out a registration form on the website, which will be automatically forwarded to the concerned POC.



The 2025 course schedule has also been set for 6 of the 7 courses at this point. The dates and location for one course still need to be determined. The MSIAC website will be updated when the information is received.

At the moment, this is the 2025 course schedule:

- ✦ UK, Bristol, MoD Abbey Wood: 3 to 7 March 2025
- ✦ Sweden, Stockholm: 7 to 11 April 2025
- ✦ Canada, Ontario, Ottawa: 28 April to 2 May 2025
- ✦ Germany, Kramerhof: 5 to 9 May 2025
- ✦ Switzerland, TBD: 16 to 20 June 2025
- ✦ France, Versailles: 22 to 26 September 2025
- ✦ USA, TBD: dates TBD

Please check our website for the new registration process. However, do not hesitate to contact Diane Vanoverstraeten ([d.vanoverstraeten@msiac.nato.int](mailto:d.vanoverstraeten@msiac.nato.int)) if you have any further questions.

**Diane Vanoverstraeten**  
Office Manager

## THE FRENCH CHRONICLE FRENCH AND ENGLISH STUFF

Any spoken language was more or less influenced by other languages depending on their history and geographical situation. It is especially true for English and French languages and it often occurs that words in both languages are preceded by the adjective “French” or “English”, just to make things perfectly clear where the designated item originates from.

As a first example, in French, we differentiate the English breakfast, which is savory and may include eggs, bacon, baked beans, etc, from the typical French one which is sweet, but does not necessarily include croissants and pains au chocolat.



In addition to the French fries that were already discussed in a previous chronicle, the British and the Americans qualify a kiss with the tongue as a “French kiss” but interestingly, this type of kiss was previously known in French as a “baiser Florentin” (a Florentine kiss). One can also say “frenching”, which means “French kissing”, and not eating French fries!



There are however those terms that refer to items for which there is no clear agreement on whether it comes from the French or the English side: the French key, in English, is called a “clé anglaise” (literally an “English key”) in French. But if you look them up on the internet, you will realise that both terms refer to the exact same tool.



This was my last French chronicle as I am no longer part of the MSIAC team. But, I will not “partir à l’anglaise”, which means leaving without saying goodbye!

**Christelle Collet**  
Former TSO Propulsion Technology

**Do not forget to check the MSIAC website for more information on Publications, Newsletters, Accidents, Tools, Meetings of interest, ....!**

