

## British Pugwash

### Annual Report of the Executive Committee 2024

#### Developments in 2024

##### **Nuclear Matters**

Russia and China still refused to engage in strategic stability/nuclear arms control talks with the United States, despite the growing proximity of the February 2026 date on which New START will expire. Neither state's motive was altogether clear; but Russia seemed to be wanting to use the issue as a source of pressure on America's Ukraine policy.

Russia announced changes in its military doctrine governing the use of nuclear weapons. These have the effect of enlarging the range of circumstances in which the Kremlin will envisage nuclear use. Those circumstances now include conventional attacks which create a critical threat to the territorial integrity of Russia or Belarus; an adversary's use of nuclear weapons against Russian formations located outside Russia; and detection of a large-scale launch of "air and space" delivery systems and of their crossing Russian borders.

None of the other four Nuclear Weapon States showed any enthusiasm for a Chinese appeal to the P5 to enter into a nuclear no first use agreement.

France renewed an earlier offer to extend its nuclear deterrent to European states grown fearful once more of Russians and uncertain whether they could depend any longer on a US nuclear umbrella. In Germany and Poland politicians debated whether those countries should seek to become nuclear-armed states.

China continued to add to its nuclear weapon stock; the United States, Russia and Britain continued to modernise nuclear warheads and delivery systems; Russia continued to enlarge its range of delivery options; the resumption of nuclear testing and the expansion of the US nuclear arsenal were mooted in the United States.

There was growing awareness of the destabilising potential of increasingly accurate conventional strategic systems. The threat of their first use in a counterforce role may in time make some nuclear-armed states reluctant to see their nuclear weapons as second-strike retaliatory systems, encouraging the adoption of “use or lose” doctrines.

Iran expanded its stock of uranium enriched to near-weapons-grade (60%) to motivate the United States to enter non-proliferation talks on a realistic basis.

### **Chemical and Biological Warfare (CBW)**

#### **Syria**

Perhaps the most significant event relating to CBW control during 2024 was the change of government in Syria in December. Having used chemical weapons during 2013, Syria joined the Chemical Weapons Convention (CWC) later that year with the promise that all of its chemical warfare capabilities would be declared and then destroyed. While all materials and relevant equipment declared by Syria had been subsequently destroyed, there remained many questions unresolved about the extent of the Syrian CW programme. The use of chemical weapons by Syrian authorities suggested that some materials and equipment remained hidden. When the new government took charge, it provided firm assurances that it would assist in resolving past controversies. By all accounts, this process has started positively. However, there are likely to be a number of challenges along the way.

The Syrian chemical file is significant for efforts to eliminate all weapons of mass destruction. Any system of prohibition of a class of weaponry needs to be enforceable or else it is unlikely to be successful. Showing that the CWC can ultimately be enforced gives greater credence to the possibilities of banning other types of weapon.

#### **Ukraine: riot-control agents (RCAs)**

During 2024, both Russia and Ukraine suggested that the other was using RCAs but neither put forward a formal allegation or complaint under the provisions of the CWC. At first glance it may seem peculiar that use of a material such as a riot-control agent that can be used in civilian peacetime circumstances should be prohibited as a method of warfare. Yet, there is an important and rather nuanced history to this prohibition.

Although no formal allegation was made, the CWC has additional provisions to deal with investigations. Ukraine submitted requests under subparagraph 38(e) of Article VIII of the Convention which relates to technical assistance; this is the same provision the UK used in relation to the Salisbury poisonings. Ukraine requested help with analysis of samples, documentation and other evidence collected following an incident on 20 September 2024 near the village of Illinka, in the Dnipropetrovsk region. Ukraine suggested that the incident had involved use of a toxic chemical on positions of the State Border Guard Service of Ukraine.

The CWC institution – the Organization for the Prohibition of Chemical Weapons (OPCW) – dispatched a team to carry out a “technical assistance visit”. The OPCW reported that the two designated laboratories to which samples had been sent had ascertained that a grenade and a soil sample had contained the riot control agent 2-Chlorobenzylidenemalononitrile, commonly known as CS. Further incidents were the subjects of later requests during 2024 and further detections of CS were reported. Neither OPCW report provided any indication of the source of the CS.

### **Strengthening the Biological Weapons Convention (BWC)**

The Ninth BWC Review Conference, held in 2022, established a Working Group (WG) on strengthening the Convention. The WG met for two sessions during 2024 for a total of 15 working days. It was established to consider seven topics and the creation of two mechanisms. The WG is to identify, examine and develop specific and effective measures, including possible legally-binding measures, and to make recommendations to strengthen and institutionalise the Convention in all its aspects. The issue areas covered are: international cooperation and assistance (ICA) under Article X; scientific and technological (S&T) developments relevant to the BWC; confidence-building and transparency; compliance and verification; national implementation of the Convention; assistance, response and preparedness under Article VII; and organizational, institutional and financial arrangements. The two mechanisms relate to ICA implementation and review of S&T developments. While discussions on the various topics had borne some fruit, there were a number of areas where divergent perspectives meant further discussions were needed. However, the two mechanisms had been much further developed and there was hope that these could be adopted as soon as possible. The Ninth Review Conference had allowed for some action to be taken before the Tenth Review Conference, scheduled for 2027 through a Special Conference, the precedent for which had

been set in 1994. WG Chair, Ambassador Frederico S. Duque Estrada Meyer (Brazil), proposed during an Ambassadorial-level retreat that the two mechanisms be adopted by a Special Conference during 2025.

Many delegations from across the globe were actively supporting this approach, not least because the BWC entered into force on 26 March 1975, making 2025 the fiftieth anniversary of the active life of the Convention. With efforts to strengthen the BWC having been languishing for a couple of decades, primarily owing to US reluctance to discuss verification issues, there was optimism that the 50th anniversary would mark major progress. However, these hopes were dashed at the end of 2024 after the delegation of Russia expressed a particularly legalistic interpretation of the provisions to call a Special Conference. The WG will resume in August 2025.

### **Other matters**

The advances in Artificial Intelligence (AI) have accelerated in recent years, prompting concerns that this might make acquisition of weapons of mass destruction easier. However, AI has the potential to assist in controlling such weapons. During 2024, the OPCW launched the “AI Research Challenge”, funded by the UK and the EU, focusing on how AI may benefit the work of the OPCW and its implementation of the Convention. Research teams were invited to submit bids for projects in this area, with winners to be announced during 2025.

The public sessions of the public inquiry into the Salisbury poisonings were held during 2024. The inquiry will be taking more evidence behind closed doors during 2025.

For many decades there was a Pugwash CBW study group. The Pugwash Council (the international governing body of the Pugwash Conferences) agreed in 2024 to reinvigorate the study group during 2025.

## **Projects and Programmes**

- **Student / Young Pugwash**

### **Annual conference**

SYP organises an annual conference on peace and disarmament. The subject of the 7th conference, held in January 2024 at King's College London, was 'Artificial Intelligence: Implications for Peace and Security'. The aim was to encourage new thinking on the legal, political and technical questions associated with this topic, with a focus on ethical science. The event featured a keynote panel of subject experts followed by three panels comprising student and young professional presenters.

A review of the conference and videos can be found [here](#).

A collection of articles written by some of those who presented at the conference was published by SYP. The authors cover a range of topical and important ground concerning the past, present and future of AI, including in relation to nuclear energy and nuclear weapons.

The article collection can be downloaded as a [pdf here](#).

### **Webinar: 'AI and nuclear matters'**

This webinar, held on 29 March, featured two speakers. Ali Alkis spoke on 'Nuclear Security and Artificial Intelligence: Balancing Pros and Cons in Safeguarding Critical Assets.' Mariam Mumladze spoke on 'Adapting Existing Arms Control Frameworks for the Dual-Use Challenges of AI in Nuclear Deterrence.'

The video of this webinar can be found [here](#).

## **Negotiation Simulation**

SYP UK joined with SYP Germany to hold this event on 2 May, a 'Negotiation Simulation', which took place online via Zoom. The participants had to consider how they would come to an agreement on constructing a new port. In turn, they needed to find the right balance of individual gains and compromise for collective success, which can be difficult between six stakeholder groups with sometimes strongly opposing interests. The event used a Harvard Law School Role-Play Simulation Exercise.

More information on the exercise is available [here](#).

## **Campaign to Stop Killer Robots-UK**

SYP is an active member of this coalition comprising NGOs, academics and tech workers. The group campaigns to ensure that the UK government supports a legally binding international treaty that: a) prohibits autonomous weapons that cannot be meaningfully controlled and those that target humans, and b) regulates other autonomous weapons to ensure meaningful human control over the use of force.

Report prepared by Tim Street, Coordinator, Student Young Pugwash

- **Analysis and resources**

British Pugwash produced articles and information over the year on the following topics:

[Russia's nuclear weapons doctrine](#)

[An interview with Prof Nick Ritchie on nuclear strategy and arms races](#)

[Developments with NATO's nuclear weapons policy](#)

[A collection of resources on and by Prof Joseph Rotblat](#)

[China's call for a No First Use agreement](#)

- **Meetings and events**

**Dr James Acton on nuclear entanglement and escalation risks**

On 8 April Dr Acton discussed rising tensions between the nuclear powers, and the prospects for a more peaceful world. In particular, he considered nuclear entanglement and escalation risks, and the impact of new technologies on nuclear decision-making.

The video is [here](#).

**Annual lecture: Professor Dame Athene Donald**

On 9 May the Centre for the Study of Existential Risk and British Pugwash hosted a public lecture by British Pugwash patron, Professor Dame Athene Donald, entitled “Reflections on the legacy of Sir Joseph Rotblat in a time of nuclear risk.” Prof Donald reflected on Sir Joseph’s enduring legacy in the face of the renewed growth of the risks posed by nuclear weapons and the critical responsibilities of scientists in today’s world.

The video is [here](#) and the interview with Prof Donald conducted by SYP [here](#).

**Hay Festival lecture: Professor Carlo Rovelli**

This year’s lecture took place on 1 June and featured Professor Carlo Rovelli, who spoke on how ‘Relations, not Entities, Make up the World.’

‘From the mystery of quantum physics all the way to the horrors of disruptions to world peace, we make the mistake of thinking in terms of individual entities. We forget that entities are made by their relations. Italian theoretical physicist and writer Carlo Rovelli suggests that trying to make sense of the world in terms of relations can help us make better sense of reality on all its levels.’

The video is [here](#) and a wide-ranging interview with Prof Rovelli on science and politics, conducted by SYP at the festival is [here](#).

### **Colonel Zhou Bo on China's approach to nuclear matters**

Colonel Zhou Bo spoke at a webinar on 8 October which explored China's call for a P5 no-first-use agreement and related nuclear policies.

The video is [here](#).

### **Prof Dan Plesch and Manuel Galileo on strategic stability and conventional strikes**

With the New Strategic Arms Reduction Treaty (START) set to expire on Feb 5 2026, strategic weapons issues loom over relations between the major powers. Against this context, this webinar, held on 12 December, spread awareness of a new report entitled 'Masters of the Air: Strategic Stability and conventional strikes.' The report considers how US precision weapons threaten strategic stability by creating survival risks for Russian and Chinese strategic deterrent systems. The report's authors, Dan Plesch and Manuel Galileo, outlined their findings and answered attendee questions.

The video is [here](#).

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The British Pugwash YouTube channel has many other videos available [here](#).

### **International Pugwash Council**

2024 was a year of significant change for the International Pugwash movement. In May the Pugwash Council elected Hussain Al-Shahristani (Iraq) as its new President, taking over from Sérgio Duarte (Brazil) who served since 2017. Then in September, Karen Hallberg (Argentina) was elected to take over from Paolo Cotta-Ramusino as Secretary General. Prof. Cotta-Ramusino served from August 2002 to the end of 2024, making him the longest serving Secretary General in Pugwash history. A new Pugwash Council was also elected in September, following several months of engagement with the Pugwash Community and National Groups.

The International movement also stepped up its Track II activities in 2024, with meetings on Strategic Stability (April), and European Security (May and October), bringing together experts from the Middle East, Europe, the United States, Russia, and Asia. These "dialogues across



divides" aim to explore common interests, redefine security priorities, and identify workable approaches to reduce nuclear dangers.

Two new Working Groups were established in 2024 (Emerging Technologies WG and Chemical and Biological Weapons WG). The Nuclear Weapons Working Group also intensified its activity in response to the worsening global security landscape. Finally, Pugwash convened a public panel on Prospects for Nuclear Disarmament at the Diplomatic Academy of Vienna, in cooperation with the Vienna School of International Studies and the Simons Foundation. For more details on all of the above, as well as and the latest news from the Pugwash Conferences on Science and World Affairs please visit the website: [www.pugwash.org](http://www.pugwash.org).

### **British Pugwash developments**

Shane Ward and Harry Spencer resigned from the Executive Committee.

Professor Kit Hill, friend and scientific colleague of Joseph Rotblat for nearly 50 years, passed away in April. Kit made important contributions to British Pugwash as secretary, treasurer and author of books and research reports. An obituary written by John Finney and Tom Milne can be found [here](#).

### **Membership growth**

In 2024 British Pugwash gained 45 new members. 30 of these were in the Student or Under 30 categories.

### **Joseph Rotblat Memorial Trust trustees**

**Chair:** Dr Richard Guthrie

**Hon. Treasurer:** Orlanda Gill

Professor John Finney FInstP, FRSC

Scarlett McGwire

Dr Tom Milne

Lord Rees of Ludlow OM, FRS

Professor Moritz Riede

**British Pugwash Executive Committee**

**Chairman:** Peter Jenkins CMG

**Hon. Treasurer:** Dr Ian Crossland

Dr David Ellwood

Dr Mamdouh El-Shanawany

Dr Peter Collecott

James Brady

Andrew Gibson

**For the Joseph Rotblat Memorial Trust:** Dr Richard Guthrie

**For PeaceJam UK:** Sally Milne

**Secretary:** Dr Tim Street

**Honorary member:** Prof. John Simpson OBE

**British Pugwash**

Ground Floor Flat, 63A Great Russell Street, London WC1B 3BJ  
Tel 0207 405 6661; email [office@britishpugwash.org](mailto:office@britishpugwash.org)

**Further information at [www.britishpugwash.org](http://www.britishpugwash.org)**