

Final Report of the Forty-second Antarctic Treaty Consultative Meeting

Prague, Czech Republic, 2–11 July 2019

- (1) Pursuant to Article IX of the Antarctic Treaty, Representatives of the Consultative Parties (Argentina, Australia, Belgium, Brazil, Bulgaria, Chile, China, the Czech Republic, Ecuador, Finland, France, Germany, India, Italy, Japan, the Republic of Korea, the Netherlands, New Zealand, Norway, Peru, Poland, the Russian Federation, South Africa, Spain, Sweden, Ukraine, the United Kingdom of Great Britain and Northern Ireland, the United States of America, and Uruguay) met in Prague from 2 to 11 July 2019, for the purpose of exchanging information, holding consultations, and considering and recommending to their Governments measures in furtherance of the principles and objectives of the Treaty.
- (2) The Meeting was also attended by delegations from the following Contracting Parties to the Antarctic Treaty, which were not Consultative Parties: Belarus, Canada, Colombia, Estonia, Malaysia, Monaco, Portugal, Romania, the Slovak Republic, Switzerland, and Turkey.
- (3) In accordance with Rules 2 and 31 of the Rules of Procedure, Observers from the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Scientific Committee on Antarctic Research (SCAR), and the Council of Managers of National Antarctic Programs (COMNAP) attended the meeting.
- (4) In accordance with Rule 39 of the Rules of Procedure, Experts from the following international organisations and non-governmental organisations attended the Meeting: the Antarctic and Southern Ocean Coalition (ASOC), the International Association of Antarctica Tour Operators (IAATO), the International Group of Protection and Indemnity Clubs (IGP&I Clubs), the International Hydrographic Organization (IHO), the International Maritime Organisation (IMO), the International Oil Pollution Compensation Funds (IOPC Funds), and the World Meteorological Organization (WMO).
- (5) The Host Country, the Czech Republic, fulfilled its information requirements towards the Contracting Parties, Observers and Experts through Secretariat Circulars, letters and a dedicated website.

Item 1: Opening of the Meeting

- (6) The Meeting was officially opened on 2 July 2019. On behalf of the Host Government, in accordance with Rules 5 and 6 of the Rules of Procedure, the Head of the Host Country Secretariat, Dr Pavel Kapler, called the Meeting to order and proposed the candidacy of Mr Martin Smolek as Chair of ATCM XLII. The proposal was accepted.
- (7) The Chair warmly welcomed all Parties, Observers, and Experts to the Czech Republic and thanked them for their confidence in appointing him as Chair of the Meeting.
- (8) The Chair paid respects to the late Professor David Walton, who passed away on 12 February 2019. Professor Walton was known for his engagement with many areas of Antarctic science and policy, such as his work on environmental protection within SCAR. He was also Chief Editor for the Antarctic Treaty Secretariat during the past seven ATCMs. He will be sorely missed by the Antarctic community.

- (9) Delegates observed a minute of silence in honour of the passing of Professor Walton, as well as that of Dr Paul Kyllonen, who passed away at Palmer Station, and Carl Jeffrey Norris and Bobby Rae Pentacost, who passed away at McMurdo Station.
- (10) Mr Tomas Petricek, the Minister of Foreign Affairs of the Czech Republic, welcomed delegates and noted that this was the first time the Czech Republic had hosted the Meeting. He recalled the long history of Czech participation in Antarctic exploration and science, and highlighted that Czechoslovakia, to which the Czech Republic is a successor state, was one of the first States to accede to the Antarctic Treaty in 1962. He noted the establishment of the Johann Gregor Mendel Czech Antarctic station on James Ross Island which supported the Czech Republic to meet the requirements of Article IX, paragraph 2 of the Antarctic Treaty, and be granted Consultative status under the Antarctic Treaty effective from 1 April 2014. He emphasised that the Czech Republic remained committed to the principles and purposes of the Antarctic Treaty, and celebrated the Treaty's promotion of a spirit of peacefulness among States. He added that the Meeting showed that it was also a centre for the harmonisation of activities in Antarctica, particularly in regards to international scientific cooperation.
- (11) Mr Petricek reiterated that Antarctica was a prime example that States were able to settle their disputes peacefully, and that the Antarctic Treaty had inspired cooperation in other international spaces. He expressed thanks to the other States who had assisted the Czech Republic with logistical support in Antarctica, and highlighted collaborative efforts between Czech scientists and foreign expeditions. Mr Petricek also stressed the importance of minimising the impact of activities in Antarctica to preserve its unique nature, highlighting his support for the strengthening of the management of tourism and non-governmental activities, and cooperation between competent national authorities towards this end. He reminded the delegates that this year marked the celebration of 60 years of the Antarctic Treaty, and that the Czech Republic had drafted the Prague Declaration together with other Consultative Parties, which encouraged Consultative Parties to reaffirm their commitment to the principles and purposes of the Treaty, including the protection and preservation of Antarctica. He concluded by expressing his hope that Antarctica's environment be preserved for future generations, and wished the delegates constructive sessions and a pleasant stay in the Czech Republic.
- (12) Mr Vladislav Smrž, the Deputy Minister for Policy and International Relations, on behalf of the Minister of the Environment of the Czech Republic, warmly welcomed the delegates to Prague. He highlighted the Czech Republic's commitment to protecting the Antarctic environment and its support of the principles of the Environment Protocol. He stated that protecting the Antarctic ecosystems was more critical than ever due to global environmental change. Mr Smrž reiterated the value of Antarctica as a stabiliser of the Earth's climate and a unique area for scientific study. He emphasised the need to continue building international cooperation in scientific research, as well as in the regulation of Antarctic activities to minimise impacts on the environment. He added that the Czech Republic had been working on amending national law on Antarctica in order to ratify and implement Annex VI on Liability Arising from Environmental Emergencies.
- (13) Mr Smrž noted that the Czech Republic appreciated the work of the CEP, and that Czech representatives to the CEP would continue to support its work. Mr Smrž highlighted Czech scientists' contributions to a better understanding of environmental processes in Antarctica through a variety of scientific fields. He added that Czech scientists had been involved in important discussions on developing the Antarctic protected area system and that it had been a pleasure and an honour to host the SCAR/CEP workshop on further developing the Antarctic protected area system prior to the ATCM. Mr Smrž emphasised the Czech Republic's commitment to minimise

the environmental impact of its activities in the Antarctic, and stated that the Czech Antarctic Johann Gregor Mendel Station on James Ross Island used renewable energy sources and employed efficient environmental management to this end. Highlighting the importance of international collaboration, he extended an invitation to scientists to work at the Czech station. He concluded with wishing the delegates a successful meeting.

Item 2: Appointment of Officers

- (14) Ms Liisa Valjento, Head of the Delegation of Finland, Host Country of ATCM XLIII, was elected Vice Chair. In accordance with Rule 7 of the Rules of Procedure, Mr Albert Lluberas Bonaba, Executive Secretary of the Antarctic Treaty Secretariat, acted as Secretary to the Meeting. Dr Pavel Kapler, head of the Host Country Secretariat, acted as Deputy Secretary. Ms Birgit Njåstad of Norway acted as Chair of the Committee for Environmental Protection.
- (15) Two Working Groups were established:
- Working Group 1: Policy, Legal and Institutional Issues;
 - Working Group 2: Operations, Science and Tourism.
- (16) The following Chairs of the Working Groups were elected:
- Working Group 1: Ms Therese Johansen from Norway;
 - Working Group 2: Professor Dame Jane Francis from the United Kingdom and Mr Máximo Gowland from Argentina.
- (17) The Meeting noted that the Chairs of both Working Groups would not be able to continue to act as Chairs at ATCM XLIII, and resolved to elect new Chairs at the end of the Meeting.

Item 3: Adoption of the Agenda, Allocation of Items to Working Groups and Consideration of the Multi-year Strategic Work Plan

- (18) The following Agenda was adopted:
1. Opening of the Meeting
 2. Election of Officers and Creation of Working Groups
 3. Adoption of the Agenda, Allocation of Items to Working Groups and Consideration of the Multi-year Strategic Work Plan
 4. Operation of the Antarctic Treaty System: Reports by Parties, Observers and Experts
 5. Report of the Committee for Environmental Protection
 6. Operation of the Antarctic Treaty System: General matters
 7. Operation of the Antarctic Treaty System: Matters related to the Secretariat
 8. Liability
 9. Biological Prospecting in Antarctica
 10. Exchange of Information

11. Education Issues
12. Multi-year Strategic Work Plan
13. Safety and Operations in Antarctica
14. Inspections under the Antarctic Treaty and Environment Protocol
15. Science Issues, Future Science Challenges, Scientific Cooperation and Facilitation
16. Implications of Climate Change for Management of the Antarctic Treaty Area
17. Tourism and Non-Governmental Activities in the Antarctic Treaty Area, including Competent Authorities Issues
18. Preparation of the 43rd Meeting
19. Any other Business
 - a) Declaration on the 60th Anniversary of the Antarctic Treaty
20. Adoption of the Final Report
21. Close of the Meeting

(19) The Meeting adopted the following allocation of agenda items:

- Plenary: Items 1, 2, 3, 4, 5, 18, 19, 20, 21
- Working Group 1: Items 6, 7, 8, 9, 10, 11, 12
- Working Group 2: Items 13, 14, 15, 16, 17

(20) The Meeting decided that under Agenda Item 13 there would be a seminar on the status and impact of hydrography in Antarctic Waters, co-chaired by Professor Dame Jane Francis (United Kingdom) and Dr Mathias Jonas (IHO).

(21) The Meeting also decided to allocate draft instruments arising out of the work of the Committee for Environmental Protection and the Working Groups to a legal drafting group for consideration of their legal and institutional aspects.

Item 4: Operation of the Antarctic Treaty System: Reports by Parties, Observers and Experts

(22) Pursuant to Recommendation XIII-2, the Meeting noted reports from depositary governments and secretariats.

(23) The United States, in its capacity as Depositary Government of the Antarctic Treaty and its Environment Protocol, reported on the status of the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty (IP 21). In the past year there had been one accession to the Treaty. Slovenia had deposited its instrument of accession to the Treaty on 22 April 2019, and the Treaty entered into force for Slovenia on that date. There had been no accessions to the Protocol in the past year. The United States noted that there were currently 54 Parties to the Treaty and 40 Parties to the Protocol as of 2 July 2019. The United States observed that the growing number of Parties demonstrated the inclusiveness of the Treaty to countries with a sustained interest in Antarctica.

- (24) Australia, in its capacity as Depositary for the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), reported that there had been no new accessions to the Convention since ATCM XLI. It noted that there were currently 36 Parties to the Convention (IP 90).
- (25) The United Kingdom, in its capacity as Depositary of the Convention for the Conservation of Antarctic Seals (CCAS), noted Ukraine's intention to accede to the Convention, as set out in WP 69. Given that the consent of all Contracting Parties was required for new accessions, the United Kingdom requested that Parties respond expeditiously to this request. The United Kingdom thanked all Parties who had completed reporting for this year and encouraged all Contracting Parties to submit their reports on time (IP 1 rev. 1).
- (26) Australia, in its capacity as Depositary for the Agreement on the Conservation of Albatrosses and Petrels (ACAP), reported that there had been no new accessions to the Agreement since ATCM XLI and that there were 13 Parties to the Agreement (IP 91). Australia noted that ACAP shared conservation objectives with the Antarctic Treaty System, namely the protection of seabirds in the Antarctic Treaty area, and encouraged those who were not members to consider joining the ACAP agreement.
- (27) CCAMLR presented IP 9 *Report by the CCAMLR Observer to the Forty Second Antarctic Treaty Consultative Meeting*. This included a summary of outcomes of the Thirty-seventh Annual Meeting of CCAMLR (CCAMLR-XXXVII) which was held in Hobart, Australia, from 22 October to 2 November 2018. Twenty-three Members, including two Acceding States, four State Observers, and 15 Observers from other organisations participated. CCAMLR highlighted its catch document scheme, which was established in 2000 to control and track the trade of toothfish, and informed the Meeting that the catch of krill in CCAMLR waters had exceeded 300,000 tonnes for the first time since the early 1980s. CCAMLR reported that the Commission had discussed two existing MPAs. It further noted that the Scientific Committee had encouraged the preparation of a draft Research and Monitoring Plan for the 2019 review of the South Orkney Islands MPA, and had conducted further discussions on the Ross Sea region Marine Protected Area (MPA) research and monitoring plan. CCAMLR also reported that its ICG on Capacity Building had held a capacity building workshop in Cape Town on 8 April 2019. CCAMLR noted that the next CCAMLR meeting would be held in Hobart, Australia, from 21 October to 1 November 2019, and would be chaired by Spain.
- (28) SCAR presented IP 28 *The Scientific Committee on Antarctic Research Annual Report 2019 to the Antarctic Treaty Consultative Meeting XLII* and noted that SCAR had a long history of providing independent scientific advice to decision makers. SCAR informed the Meeting that it had celebrated its 60th anniversary in 2018, and that this milestone was marked during the 8th SCAR Open Science Conference. The conference was held in Davos, Switzerland from 19 June to 23 June 2018, and attended by over 2,500 scientists. SCAR reported that three new Scientific Research Programmes were in development, and noted that the XXXVI SCAR Meetings and Open Science Conference would take place from 31 July - 11 August 2020 in Hobart, concurrently with the COMNAP Annual General Meeting. Recognising the significance of the scientific connections between Antarctica and the global system, SCAR highlighted that the theme 'Antarctic Science: Global Connections' reflected the importance of collaboration in Antarctic science.
- (29) The Meeting thanked SCAR for IP 28 and noted the continued importance of SCAR's work in advancing Antarctic research and providing independent and scientific advice to the CEP and ATCM. Noting the significance of SCAR's 60th anniversary, the Meeting drew attention to SCAR's substantial achievements across the past six decades and congratulated SCAR on its strong track record.

- (30) COMNAP presented IP 8 *Annual Report for 2018/19 of the Council of Managers of National Antarctic Programs (COMNAP)*, which reported on work related to air operations (WP 8, IP 2), and on continuing work related to understanding and reducing the risk of introducing non-native species (WP 50). It also noted that it had held the COMNAP Antarctic Search and Rescue (SAR) Workshop IV 2019 (IP 88), the fourth in the series of triennial COMNAP SAR Workshops. COMNAP formally thanked all participants and also thanked New Zealand for hosting the workshop. COMNAP also thanked Germany for hosting COMNAP AGM XXXI and Symposium (2018). COMNAP also reported on the early career fellowships it supported and welcomed IAATO's support of an inaugural fellowship for this year. Finally, COMNAP noted that COMNAP products such as the Antarctic Telecommunications Operators Manual (ATOM), the Antarctic Flight Information Manual (e-AFIM), and the COMNAP Asset Tracking System (CATS) were all available on the COMNAP Member's webpage.
- (31) The Meeting thanked COMNAP for IP 8, and underscored the importance of COMNAP's recent work in the realms of safety, environmental protection, and science facilitation. As the host of the 2019 Search and Rescue Workshop, New Zealand reiterated its commitment to reducing risks throughout Antarctic operations.
- (32) In relation to Article III-2 of the Antarctic Treaty, the Meeting received reports from other international organisations.
- (33) WMO presented IP 92 *WMO Annual Report 2018–2019*. WMO stated that it had 193 member States and Territories, and that it had submitted six papers to the ATCM covering a variety of issues, including The Year of Polar Prediction (YOPP) 2017-2019 (IP 94), the International Programme for Antarctic Buoys (IP 93), and the Antarctic Regional Climate Centre Network (IP 164). WMO reaffirmed its commitment to maintaining positive, mutually-beneficial engagement with Parties and other interested organisations.
- (34) ASOC presented IP 129 *ASOC Report to the ATCM*, which outlined work relevant to the ATCM that it had undertaken in the past year. ASOC also highlighted its key priorities for the ATCM, including: adopting proactive management measures for tourism; implementing a systematic conservation planning process to expand the protected areas system; adopting management measures that could promote ecosystem resilience in an era of climate change; exploring methods of reducing microplastic pollution; taking steps to mitigate the impacts of shipping on the Antarctic environment and on cetaceans; and supporting efforts to increase marine protection in the Southern Ocean. Noting that 2019 was the 60th Anniversary of the Antarctic Treaty, ASOC stressed that this was a critical time for the ATCM, which must address both increased human activity and greater climate change impacts. ASOC urged the Parties to take immediate action to implement stricter environmental protections.
- (35) IAATO introduced IP 139 *Annual Report of the International Association of Antarctica Tour Operators*. IAATO noted that its membership currently comprised 116 Operators and Associates representing businesses based in 16 different Antarctic Treaty Party countries. Reflecting on the 2018/19 Antarctic season, IAATO observed that its Operators had carried nationals from nearly all Parties in addition to nationals from a further 54 non-Treaty Party countries. It highlighted that the season had run smoothly with no incidents to report. The total number of visitors traveling with IAATO Operators was 56,168, which represented an increase of 8.6% compared to the previous season. While this growth represented a new high, IAATO underlined that this was in line with expectations. Finally, IAATO highlighted many of its initiatives that supported its mission of safe and environmentally responsible private sector travel to Antarctica.

Item 5: Report of the Committee for Environmental Protection

- (36) Ms Birgit Njåstad (Norway), Chair of the Committee for Environmental Protection, introduced the report of CEP XXII. The CEP had been attended by representatives of 37 of its 40 Members (Parties to the Environment Protocol). CEP XXII had considered 48 Working Papers and 75 Information Papers as well as a number of Secretariat Papers and Background Papers, making this a record year in terms of numbers of papers considered. The Chair of the CEP noted that she would highlight items where the matters discussed in the CEP had also been scheduled for discussion in the ATCM, the matters related to priorities and tasks in the ATCM, and matters on which the CEP had agreed specific advice to the ATCM, but encouraged Parties to review all parts of the CEP Report.
- (37) The Meeting congratulated the CEP on its work and noted the ongoing significance of the Committee's role in advising the ATCM on the implementation of the Protocol and protection of the Antarctic environment. In this regard the Meeting emphasised the importance of the dialogue between the Committee and the ATCM.

Strategic Discussions on the Future Work of the CEP (CEP Agenda Item 3)

- (38) The Chair of the CEP advised that the Committee had considered the report on the outcomes of the Antarctic Tourism Workshop held 3-5 April 2019 in Rotterdam, which had brought forward a number of relevant recommendations for the CEP to consider. The CEP had agreed to progress the recommendation by: inviting SCAR, in collaboration with others, to offer advice regarding the design of an environmental monitoring programme on the impacts of tourism; by including on its Five-year Work Plan the development of a framework for pre-assessments of new or particularly concerning activities; and by establishing an ICG to address the existing guidance for all visitors to the continent, with a view to strengthening that guidance.
- (39) The Meeting commended the CEP for its work over the previous week, and expressed its thanks and congratulations to the Netherlands for having organised the highly successful workshop. Several Parties shared their support for the recommendations, and stressed in particular the importance of creating a general framework for Antarctic visitors that could apply to all visitors to the continent, regardless of whether they were tourists or other actors. The Meeting also warmly welcomed the offer of Germany to convene and lead the new CEP ICG, and looked forward to receiving further advice from the Committee.
- (40) Noting the CEP's invitation to SCAR to offer advice, the United States hoped that SCAR would take into account information included in the 2012 CEP Tourism Study, and past SCAR-COMNAP workshops on environmental monitoring.
- (41) The Chair of the CEP noted that the Committee had updated its Five-year Work Plan to incorporate actions that had arisen during the meeting.

Cooperation with other organisations (CEP Agenda Item 5)

- (42) The Meeting welcomed the valuable contribution from SCAR and other Observers and Experts to support the work of the Committee.

Repair and Remediation of Environmental Damage (CEP Agenda Item 6)

- (43) The Chair of the CEP noted that the Committee had considered the outcomes of a review of the Antarctic Clean-Up Manual (Resolution 2 (2013)), which had been conducted under the leadership

of Australia. The Committee had endorsed the revised Clean-Up Manual and agreed to forward to the ATCM for approval a draft Resolution encouraging its dissemination and use. In addition, the Committee requested that the ATCM note the ICG's summary of developments and advances in clean-up since 2013 (held in Attachment C to WP 46), which showed that a substantial body of clean-up related scientific literature had become available, and clean-up activities and experiences had been reported to the CEP by Parties in this period.

- (44) The Meeting thanked the CEP for its work and its recommendations, as well as Australia for its leadership in this matter. Several Parties noted the timeliness of this revision in light of the 2020 deadline to establish a time-frame for the resumption of negotiations on liability as agreed in Decision 5 (2015). Some Parties noted the importance and usefulness of the manual being kept up-to-date and accessible.
- (45) **The Meeting adopted Resolution 1 (2019) Revised Antarctic Clean-Up Manual.**

Climate Change Implications for the Environment: Strategic approach (CEP Agenda Item 7)

7a. Strategic Approach

- (46) The Chair of the CEP reported that the Committee had considered several papers that discussed the scientific information on how a 1.5°C global average temperature increase scenario could impact the Antarctic Peninsula.
- (47) The CEP Chair remarked that the Committee had noted that it was important for the CEP to remain informed about climate change and to take a leadership role in considering the implications of a climate change for the Antarctic environment, including the implications of warming beyond a 1.5°C scenario.
- (48) The Committee had further: called for additional climate change research and monitoring to improve the basis for decision making; observed that it had to act in a precautionary manner and take action on the information already available; encouraged scenario studies of other areas of Antarctica; noted the importance of taking anticipated changes into account in management tools and guidance material; emphasised the considerable regional variations in climate change and its implications, both for management actions and long-term monitoring and research; and highlighted the need for a better understanding of the impact of combined pressures of human activities and climate change in Antarctica. The Committee had further called for the work of the Subsidiary Group on Climate Change Response (SGCCR) to be prioritised, for continued progress on the Climate Change Response Work Programme (CCRWP), and for more Members to participate in their work.

7b. Implementation and Review of the Climate Change Response Work Programme

- (49) The CEP Chair recalled Resolution 4 (2015), which encouraged the CEP to begin implementing its CCRWP as a matter of priority, and to provide annual progress reports to the ATCM on its implementation. On this basis, the Committee had considered the report and recommendations of the SGCCR, which was mandated to facilitate the coordination and communication of the CCRWP and to suggest updates to it. Most Members had expressed general support for the recommendations from the SGCCR, but one Member had expressed doubts regarding their adoption at this time.
- (50) The Committee had agreed that the SGCCR could apply the suggested new format for the CCRWP to relevant climate issues within the work programme. The CEP Chair noted that the SGCCR

would continue its work under the existing Terms of Reference as adopted through Decision 1 (2017), and that the Committee had encouraged active participation from all interested Members, Observers, and Experts.

- (51) The Meeting emphasised the fundamental importance of understanding the implications of climate change in Antarctica and the necessity of acting on the basis of the existing science. Most Parties expressed their regret that consensus could not be reached on all the recommendations put forward by the SGCCR, and urged Parties to actively support the continuation of this work as a priority.
- (52) While noting the importance of addressing climate change within the framework of the ATCM, China commented that more research and monitoring efforts were required in order to understand the impacts of climate change on the Antarctic. China expressed its willingness to continue working with other Parties in this regard.

Environmental Impact Assessment (EIA) (CEP Agenda Item 8)

8a. Draft Comprehensive Environmental Evaluations

- (53) The Chair of the CEP reported that the Committee had discussed in detail the draft Comprehensive Environmental Evaluation (CEE) prepared by the United States for the ‘Continuation and Modernization of McMurdo Station Area Activities’. The Committee had also discussed the report of the ICG established to consider the draft CEE in accordance with the Procedures for Intersessional CEP Consideration of Draft CEEs. The CEP advised the ATCM: that the draft CEE generally conformed to the requirements of Article 3 of Annex I to the Protocol on Environmental Protection to the Antarctic Treaty; that there were some aspects for which additional information or clarification could be provided in the final CEE to enhance its comprehensiveness; that information provided in the CEE supported the conclusion that the impacts of some activities within the project would have a greater than minor or transitory impact; and this level of EIA had been appropriate for this project. The CEP Chair reported that the Committee had welcomed the United States’ commitment to respond to issues raised and had encouraged the United States to take into account the Committee’s advice when preparing the required final CEE.
- (54) The United States expressed its gratitude to the Committee for its suggestions and, in particular, the Republic of Korea for its efforts in convening the ICG. It noted that the ICG’s input would assist the United States in preparing its final CEE.
- (55) Noting the time-scale and scope of this project, the United Kingdom highlighted that Annex I was now dated compared to modern EIA requirements and urged the CEP to consider how to make the EIA process more adaptable to a modern context, while keeping extremely high standards of environmental assessment.
- (56) The Meeting thanked the United States and the Republic of Korea for their work and agreed to the advice from the CEP. Many Parties noted that the final CEE could appropriately set a high standard to inform other ongoing and planned modernisation projects.

Area Protection and Management Plans (CEP Agenda Item 9)

9a. Management Plans

- (57) The CEP Chair reported that the Committee had considered nine revised management plans for Antarctic Specially Protected Areas (ASPAs) and two revised management plans for Antarctic Specially Managed Areas (ASMAs), and had agreed to forward each of the revised management

plans to the ATCM for approval by means of a Measure.

(58) Accepting the CEP's advice, the Meeting adopted the following Measures on ASPAs and ASMAs:

- *Measure 1 (2019) Antarctic Specially Protected Area ASPA No 123 (Barwick and Balham Valleys, Southern Victoria Land): Revised Management Plan*
- *Measure 2 (2019) Antarctic Specially Protected Area ASPA No 128 (Western Shore of Admiralty Bay, King George Island (Isla 25 de Mayo), South Shetland Islands): Revised Management Plan*
- *Measure 3 (2019) Antarctic Specially Protected Area ASPA No.141 (Yukidori Valley, Langhovde, Lützow-Holm Bay): Revised Management Plan*
- *Measure 4 (2019) Antarctic Specially Protected Area ASPA No.142 (Svarthamaren): Revised Management Plan*
- *Measure 5 (2019) Antarctic Specially Protected Area ASPA No.151 (Lions Rump, King George Island (Isla 25 de Mayo), South Shetland Islands): Revised Management Plan*
- *Measure 6 (2019) Antarctic Specially Protected Area ASPA No.154 (Botany Bay, Cape Geology, Victoria Land): Revised Management Plan*
- *Measure 7 (2019) Antarctic Specially Protected Area ASPA No.161 (Terra Nova Bay, Ross Sea): Revised Management Plan*
- *Measure 8 (2019) Antarctic Specially Protected Area ASPA No.171 (Narębski Point, Barton Peninsula, King George Island (Isla 25 de Mayo)): Revised Management Plan*
- *Measure 9 (2019) Antarctic Specially Protected Area ASPA No.173 (Cape Washington and Silverfish Bay, Terra Nova Bay, Ross Sea): Revised Management Plan*
- *Measure 10 (2019) Antarctic Specially Managed Area ASMA No.4 (Deception Island): Revised Management Plan*
- *Measure 11 (2019) Antarctic Specially Managed Area ASMA No.7 (Southwest Anvers Island and Palmer Basin): Revised Management Plan*

(59) The CEP Chair noted that the Committee had also considered seven current management plans that had been reviewed and where no changes were suggested. For the following management plans, the Committee had agreed that existing management plans remained in force with the next reviews to be initiated in 2024 at the latest:

- ASPA 135 North-East Bailey Peninsula, Budd Coast, Wilkes Land
- ASPA 136 Clark Peninsula, Budd Coast, Wilkes Land, East Antarctica
- ASPA 143 Marine Plain, Mule Peninsula, Vestfold Hills, Princess Elizabeth Land
- ASPA 160 Frazier Islands, Windmill Islands, Wilkes Land, East Antarctica
- ASPA 162 Mawson's Huts, Cape Denison, Commonwealth Bay, George V Land, East Antarctica

- ASPA 169 Amanda Bay, Ingrid Christensen Coast, Princess Elizabeth Land, East Antarctica
- ASPA 175 High Altitude Geothermal sites of the Ross Sea region

(60) The CEP Chair also noted that the Committee had considered draft management plans for three proposed new ASPAs and had decided to forward the following three draft management plans for the following new protected areas to the SGMP for review:

- Antarctic Specially Protected Area at the Rosenthal Islands, Anvers Island, Palmer Archipelago
- Antarctic Specially Protected Area at Léonie Islands and south-east Adelaide Island, Antarctic Peninsula
- Antarctic Specially Protected Area at Inexpressible Island and Seaview Bay, Ross Sea

(61) Noting recent examples of management plan reviews conducted remotely, Spain highlighted that the *in situ* monitoring of ASMAs and ASPAs was not always necessary and that remote monitoring, where appropriate, could minimise environmental impact.

(62) China thanked the Committee for supporting its proposal for a new ASPA at Inexpressible Island, jointly proposed with Italy and the Republic of Korea. It stated that it would take seriously feedback it had received from CEP Members and looked forward to discussions in the SGMP to further develop the management plan.

9b. Historic Sites and Monuments

(63) The CEP Chair reported that the Committee had considered two proposals for additions to the List of Historic Sites and Monuments.

(64) Accepting the CEP's advice, the Meeting adopted the Measure 12 (2019) *Revised List of Antarctic Historic Sites and Monuments: Wreck of Sir Ernest Shackleton's vessel Endurance and C.A. Larsen Multiexpedition cairn.*

(65) The CEP Chair reported that the Committee had considered two heritage issues under the terms of Resolution 5 (2001) regarding interim protection. The Committee had agreed that interim protection afforded to pre-1958 sites in accordance with Resolution 5 (2011) would apply to the historical remains at Camp Lake, Vestfold Hills, East Antarctica and, if its location were discovered, to the *San Telmo* wreck.

(66) The Committee had also agreed to a new format of the list of Historic Sites and Monuments, incorporating eight new fields of information in addition to the current fields (as identified in Measure 9 (2016)). Those fields would be: Name, Type, Conservation Status, Description of the historical context, Applicable criteria in accordance with Resolution 3 (2009), Management tools, Photos and Physical features of the environment and cultural and local context.

(67) In agreeing to a new format for the HSM list, the Committee had also agreed a process that would allow merging of the existing HSM list into the new format in a transparent manner, and suggested that the new format of the list should not come into effect until that process had been completed.

(68) The Meeting considered and approved a new format for the HSM list by adopting *Decision 1 (2019) Redesign of the format of the list of Historic Sites and Monuments.*

- (69) The Meeting thanked the Committee for its work on HSMs, including its work to improve the content and format of the HSM list.

9c. Site Guidelines

- (70) Regarding the Committee's work on Site Guidelines, the CEP Chair noted that site guidelines for four sites had been revised: Torgersen Island, Arthur Harbour; Yankee Harbour; Half Moon Island; and Snow Hill Hut. The CEP had forwarded revised Site Guidelines to the ATCM for adoption.
- (71) The Meeting considered and approved four revised Site Guidelines by adopting **Resolution 2 (2019) Site Guidelines for Visitors**.
- (72) The CEP Chair reported that the Committee had also endorsed the Site Guidelines for Visitors checklist. To encourage Parties to make use of the checklist, the CEP had asked the Secretariat to make the checklist available on the website and agreed to forward the checklist to the ATCM to encourage the use of the list by means of a Resolution.
- (73) Accepting the CEP's advice, the Meeting adopted **Resolution 3 (2019) Visitor Site Guidelines Assessment and Review Checklists**.

9d. Marine Spatial Protection and Management

- (74) The CEP Chair reported that the Committee had considered a report on informal discussions held by interested Parties to develop a response to the ATCM request in Resolution 5 (2017) "to consider any appropriate actions within the Antarctic Treaty Consultative Meeting's competence to contribute to the achievement of the specific objectives set forth in CCAMLR Conservation Measure 91-05" (WP 48). Most Members underlined the importance of responding to the request from the ATCM through Resolution 5 (2017) in a timely and responsive manner. The Committee had not been able to agree to initiate formalised discussions on this matter. The Committee had welcomed New Zealand's offer to continue to facilitate informal discussions during the coming intersessional period.
- (75) Many Parties expressed concern that work on marine harmonisation had not progressed as required by Resolution 5 (2017). The United States expressed its concern that in its view some Parties felt that this work could not proceed without CCAMLR approval of the Ross Sea region Marine Protected Area's Research and Monitoring Plan. The United States disagreed with any such rationale and noted that, if the ATCM was prevented from assisting with implementation of the MPA, the impacts on the MPA project would become the clear responsibility of those who were preventing progress.
- (76) Noting that the CEP was considering an ASPA proposal including a marine area within the CCAMLR Ross Sea MPA, the United Kingdom encouraged the CEP to consider this in the context of ongoing discussions on harmonisation.
- (77) The Russian Federation noted that discussions on harmonisation could also be enriched by relying on the discussions of the CEP-SCAR workshop on further developing Antarctic protected Area System.
- (78) Some Parties observed that the harmonisation of spatial protection between CCAMLR and the ATCM was very complex and urged continued discussions to progress this important issue.
- (79) ASOC expressed its support for the current MPAs under discussion, as well as for discussion about a land, coast and sea connection when protecting areas. ASOC encouraged all Parties to support

consultations on a wide network of MPAs.

9e. Other Annex V Matters

- (80) The CEP Chair noted that the Committee had also discussed issues relating to coastal camping coordination. The Committee had agreed to: encourage Parties and invited Experts with an interest in vessel-supported short overnight stays to participate in the ICG reviewing visitor site guidelines to ensure it considered short overnight stays in the updating of the guidelines; invite IAATO to work with member-operators to review the list of current camping locations and update the Committee as appropriate; invite SCAR and other relevant experts to develop criteria, with reference to IAATO's camp site selection criteria, that could be used in considering new camping areas for consideration by CEP XXIII; and add an item to the Five-year Work Plan to develop guidelines for short overnight stays, to ensure consistent application of best practices and minimise impacts to the Antarctic environment.
- (81) Spain thanked the United States and Canada for WP 67 noting the current lack of regulations on coastal camping activities. It highlighted that any new regulations, while important, should not impede the scientific productivity of National Antarctic Programmes.
- (82) The CEP chair reported that the Committee had considered the recommendations arising from the Joint SCAR/CEP Workshop on Further Developing the Antarctic Protected Area System, held in Prague, Czech Republic from 27–28 June 2019. The joint SCAR/CEP Workshop had been hosted by the Czech Ministry of the Environment at the Masaryk College in Prague and had been very productive and successful. The CEP Chair reported that the Committee had agreed to a number of actions based on the outcomes from the workshop and placed these on the Committee's Five-year Work Plan for further progress in the coming years. In accordance with its role to provide advice on the operation and further elaboration of the Antarctic Treaty System, the CEP Chair reported that the Committee had agreed to advise the ATCM that it had considered a draft report on the State of the Antarctic Protected Area System (held in WP 70 Attachment A), which was an objective report and not an evaluation or assessment. The CEP Chair reported that the Committee had agreed to forward the report to the ATCM. The CEP Chair also noted that the Committee had agreed that further discussion on the dedesignation of ASPAs was required and welcomed the offer from Norway to lead further intersessional work and report back to CEP XXIII.
- (83) The Meeting thanked the CEP for the report of the Joint SCAR/CEP Workshop and noted its contents. Several Parties highlighted the need for a systematic and integrated approach to the ASPA system, and reiterated the need to ensure that the development of the protected area system was informed by the best available science. Recognising the substantial efforts of all those involved in organising the SCAR/CEP Workshop, several Parties reiterated the importance of international collaboration, and close and continuing engagement by SCAR, in furthering work to align the protected area system with the objectives of the Protocol.

Conservation of Antarctic Flora and Fauna (CEP Agenda Item 10)

10a. Quarantine and Non-native Species

- (84) The CEP Chair reported that the Committee had considered and agreed to a *Non-native Species Response Protocol* and had noted that responding to non-native species invasion had high importance. The Committee had agreed that the Protocol would be a useful tool for Parties, and furthermore had agreed to append it to the CEP Non-native Species Manual. The Committee had also agreed to request that the Secretariat add the Non-native Species Response Protocol to the CEP

Non-native Species Manual, make it available on the ATS website, and encourage its broad use.

- (85) The CEP Chair also reported that the Committee had considered an update of the SCAR/COMNAP “*Checklists for supply chain managers of National Antarctic Programs for the reduction in risk of transfer of non-native species*” and that the Committee agreed that the updated checklists would replace the version currently found in the CEP Non-native Species Manual. The Committee had also agreed that Members would encourage their National Antarctic Programmes and other supply chain managers and operators in their countries to use the checklists on a voluntary basis.

10b. Specially Protected Species

- (86) Referring to information presented in IP 41, particularly concerning emperor penguins, Germany noted that Annex II could be more flexible than ASPAs with respect to species-related management options.
- (87) Germany also reported that it fully supported SCAR’s work on improving knowledge on the impacts of underwater anthropogenic noise. It urged Parties to encourage their competent authorities to take the effects of anthropogenic noise into account, and provided information to the Meeting on a research project it had launched on the topic.

10c. Other Annex II Matters

- (88) The CEP Chair noted that the Committee had considered SCAR’s Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica, as detailed in WP 17. The Committee had endorsed the Code of Conduct, and had agreed to forward it to the ATCM for approval by means of a Resolution.
- (89) The Meeting agreed to adopt Resolution 4 (2019) *SCAR’s Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica*.
- (90) The CEP Chair reported that the Committee had also considered the issue of anthropogenic noise in the Southern Ocean based on an update on the state of knowledge on this topic from SCAR. The Committee had emphasised the importance of understanding and addressing the effects of noise in marine environments. It had further encouraged research and other activities to address gaps in management-relevant knowledge regarding the impacts of noise on the Antarctic environment, and in particular, encouraged National Antarctic Programmes to follow up on this call.

Environmental Monitoring and Reporting (CEP Agenda Item 11)

- (91) The CEP Chair reported that the Committee had recognised that plastic pollution was a significant problem in Antarctica and the Southern Ocean that could have long-lasting environmental impacts. It had expressed wide support for taking steps to minimise impacts of microplastics and macroplastics in the region. The Committee had also agreed that there was scope for further work to progress actions and measures on this in future years.
- (92) The CEP Chair reported that the Committee had forwarded to the ATCM a draft resolution recommending steps that could be undertaken to reduce plastic pollution in the Antarctic.
- (93) The Meeting thanked the CEP for raising this important topic, and many Parties reiterated their commitment to reducing plastics in the oceans.
- (94) The United Kingdom encouraged all those operating in Antarctica to consider the necessity of any

plastic they use in the Treaty Area, particularly those that could explicitly or inadvertently add to micro plastic pollution in Antarctica.

- (95) The Meeting noted that reducing the use of single-use plastics was key to this endeavour, and that macroplastic pollution should also be considered in the future.
- (96) **The Meeting adopted Resolution 5 (2019) *Reducing Plastic Pollution in Antarctica and the Southern Ocean.***
- (97) The CEP Chair also noted that the Committee had discussed the Status and Monitoring of Antarctic Seal Species and that the Committee had agreed to urge SCAR and other scientists to increase research into Antarctic seal species. The CEP Chair noted that the Committee would undertake further work and discussions regarding the management of Antarctic seals.
- (98) New Zealand also drew the Meeting's attention to the Committee's discussion of the Antarctic Environments Portal. It noted that the Committee had reaffirmed the Portal's value as a key tool for providing objective summaries to decision-makers, welcomed SCAR's offer to assume management of the Portal in the coming year, and welcomed the contributions of some Parties to this end.

Inspection Reports (CEP Agenda Item 12).

- (99) The CEP Chair reported that the Committee had considered papers reporting on inspections conducted by Argentina and Chile between 17 February and 2 March of 2019.
- (100) The CEP Chair noted that the Committee had considered the three recommendations relevant for the Committee put forth by Argentina and Chile in WP 39 *General recommendations of the joint inspections between Argentina and Chile, in accordance with Article VII of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection*. The Committee had broadly supported these recommendations and had noted the usefulness of follow-up reports on inspections by the Parties inspected, but had added that these reports, though useful, should not be mandatory.

General Matters (CEP Agenda Item 13)

- (101) The CEP Chair advised that the Committee had considered aspects of the French and Italian proposal for The Ice Memory Project. The Committee had recognised the scientific value of the project and had expressed broad support for the aims and underlying principles of the project. The Committee had agreed that further discussions on the implementation of the Ice Memory Project would be beneficial. It had called for further interaction and information in the planning process, particularly in relation to concerns raised regarding potential environmental risks.
- (102) Italy noted the complex logistics and technical challenges with this important project, and stated that it fully agreed that a CEE was required. Italy invited interested Parties to join the proponents of the project, referring to the need for strong international collaboration to achieve its strong scientific potential.
- (103) The Meeting thanked the Ice Memory Project's proponents for their excellent and comprehensive work, and expressed its support for the scientific value of the project. It noted the CEP's concerns regarding potential environmental risks and agreed that these should be addressed through further discussions by Parties on the implementation of the Ice Memory Project.
- (104) The CEP Chair reported to the Meeting that the Committee had received notice from Colombia that it was in the process of finalising the ratification of the Protocol. It had noted that Colombia would

potentially become a CEP Member at CEP XXIII.

- (105) Colombia re-affirmed that it had completed the internal process of implementing the Environment Protocol and that it expected to deposit the necessary documents to complete the ratification process by the end of 2019. Colombia reiterated its commitment to contributing to efforts to protect the Antarctic environment.
- (106) China informed the Meeting that, following discussions in the CEP, it had shifted its efforts away from an ASMA proposal and would continue pursuing the development of a Code of Conduct for the Dome A area, as a self-regulatory effort to protect and manage the area. China expressed its hope that CEP Members and ATCM Parties would provide comments on the preparation of the Code of Conduct in the future.

Election of Officers (CEP Agenda Item 14)

- (107) The CEP Chair noted that the Committee had agreed to re-elect Dr Kevin Hughes from the United Kingdom to serve a second two-year period as CEP Vice-Chair.
- (108) The Meeting warmly thanked Dr Kevin Hughes for his excellent work and contributions as CEP Vice-Chair and congratulated him on his re-election.

Preparation for Next Meeting (CEP Agenda Item 15)

- (109) The Chair of the CEP noted that the Committee had adopted a Preliminary Agenda for CEP XXIII, reflecting the agenda for CEP XXII.
- (110) The Meeting acknowledged the CEP's immense efforts, especially in the face of an increased workload. Noting the continued increase in scientific and tourism activity across Antarctica, the Meeting suggested that a future priority for the CEP might be the re-assessment of its earlier work on cumulative impacts, and the inclusion of this in the EIA process.

Closing of the Meeting

- (111) The Meeting thanked Ms Njåstad for her comprehensive report on the work of the CEP, and for her wisdom and excellent leadership of the CEP. It also thanked the rapporteurs, interpreters and translators for their work.
- (112) The Meeting gave special thanks to Mr José María Acero of the Antarctic Treaty Secretariat for his long-standing service to the CEP. Recalling his previous work as a CEP delegate and his current role as the Secretariat's Assistant Executive Secretary, the Meeting acknowledged the importance of his work in supporting the CEP over many years.
- (113) The Meeting paid special tribute to the legacy of the former Prime Minister of Australia, the Honourable Bob Hawke AC, who passed away on 16 May 2019. The Meeting expressed appreciation for Mr Hawke's instrumental role in the creation of the Madrid Protocol with its indefinite ban on mining, and recognised the importance he attached to protecting the environment of Antarctica. The Meeting expressed gratitude for the significant contribution Mr Hawke made to the Antarctic Treaty System.

Item 6: Operation of the Antarctic Treaty System: General matters

- (114) Argentina introduced WP 28 *Notification by the Consultative Parties of the list of Observers under*

Article VII of the Antarctic Treaty, jointly prepared with Chile. Argentina reminded the Meeting that Decision 7 (2013) provides for ATCPs to inform the Secretariat of the designation of Observers under Article VII of the Antarctic Treaty, in addition to notification through diplomatic channels, and instructs the Secretariat to include only those Observers notified through diplomatic channels in its contacts database. In practice, however, there had been a recent tendency for the Consultative Parties to forego the notification through diplomatic channels; instead, they have been using the Secretariat of the Antarctic Treaty as the sole information channel. Conscious of the fact that the current practice of only using the Secretariat as a means of notification is faster and more efficient, and with the aim of harmonising the ATCM procedures to such practice, Argentina proposed to amend Decision 7 (2013) accordingly.

- (115) The Meeting thanked Argentina for drawing its attention to the inconsistency between the official procedure and practice. The Meeting agreed that the communication of the names of designated observers and the notice of termination of their appointment through the Secretariat was a suitable and adequate means of communication in conformity with Article VII (1) of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection to the Antarctic Treaty.
- (116) The Meeting further agreed that Parties may still carry out such communication to each of the Consultative Parties via the traditional diplomatic channels, and also, that the list of appointed Observers be kept on a restricted access section of the Secretariat website.
- (117) Following further discussions, the Meeting adopted Decision 2 (2019) *Notification by the Consultative Parties of the list of Observers under Article VII of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection to the Antarctic Treaty through the Secretariat of the Antarctic Treaty.*
- (118) Argentina introduced WP 42 *Report of the ICG on Organisational Aspects of the ATCM*. It recalled that Ecuador had been unable to host ATCM XLI as previously planned and that the Meeting took place successfully in Argentina, but with a particularly tight schedule, a reduced agenda and also having had to resort to the ATS budget. The ICG had been established to examine the implications and lessons learned from the organisation of ATCM XLI and CEP XXI, and to consider options for how best to manage a similar scenario in the future. Argentina reported that there was general agreement among ICG participants that future Host Countries should be encouraged to submit regular informal progress reports on preparation for the next ATCM, setting out their plans and any specific arrangements made to date. Argentina reported that there had not been agreement among ICG participants on the idea of additional payments either to create a forward-looking guarantee fund or a backward-looking fee. Likewise, ICG participants had not supported the idea of an automatic loss of rights or penalties for a Party unable to host a future ATCM.
- (119) The Meeting thanked Argentina for WP 42, and ICG participants for sharing their comments and suggestions. The Meeting encouraged all upcoming ATCM Host Countries to submit a progress report to the ATCM in the form of an IP a year in advance, and for upcoming Host Countries to provide regular progress reports to the Secretariat. It also agreed that this suggestion should be included in the Organisational Manual that the Secretariat routinely provided to upcoming Host Countries. France noted that it would present such a paper at ATCM XLIII in Finland in 2020, where it would outline its plans for ATCM XLIV, which would be held in Paris in 2021.
- (120) The Executive Secretary presented SP 3 *List of measures with status "not yet effective"*, and reported that, according to the ATS database, there were several Measures that were not yet effective. These related to Measures adopted at ATCM XVI (Bonn, 1991), ATCM XXVII – CEP VII (Cape Town, 2004), ATCM XXVIII – CEP (Stockholm, 2005) and ATCM XXXII-CEP XII

(Baltimore, 2009). Several Parties provided updates on their domestic implementation of Measures and Recommendations that were not yet effective:

- Japan reported that it had completed domestic procedures to approve Measure 1 (1991) *Exchange of Information* and Measure 12 (1991) *Seismic Data Library System*.
- The Republic of Korea reported that it had approved Recommendation XV-5 (1989) *Human Impact on the Antarctic Environment: Environmental Monitoring in Antarctica* (Paris, 1989). With this approval, Recommendation XV-5 had entered into force. The Republic of Korea also reported that it had approved Measure 12 (1991) *Seismic Data Library System*, and noted that it was working to approve Measure 15 (2009) *Landing of Persons from Passenger Vessels*.
- Argentina reported that it had almost completed the process of an Executive Decree towards approving Measure 15 (2009) *Landing of Persons from Passenger Vessels*.

- (121) Ukraine introduced WP 69 *Intention of Ukraine to accede to the Convention for the Conservation of Antarctic Seals (CCAS)*. Ukraine reported that it would like to request the United Kingdom, as the Depository Government of the CCAS, to initiate the procedure for receiving notifications of the consent of all the Contracting Parties to the Convention to invite Ukraine to accede to CCAS. The Meeting thanked Ukraine for this paper.
- (122) Australia presented IP 153 *Strengthening Support for the Protocol on Environmental Protection to the Antarctic Treaty*, jointly prepared with France and Spain. Australia paid tribute to former Australian Prime Minister the Honourable Bob Hawke AC, who passed away on 16 May 2019. Australia recalled that Mr. Hawke, together with former French Prime Minister Michel Rocard and former Spanish President of the Government Felipe González, was instrumental in the negotiation and entry into force of the Environment Protocol. In accordance with Resolution 1 (2012) *Strengthening Support for the Protocol on Environmental Protection to the Antarctic Treaty* and the 2016 *Santiago Declaration on the 25th Anniversary of the signing of the Protocol*, the proponents of the paper worked with 13 other Consultative Parties in delivering démarches to eight non-Consultative Parties encouraging them to become a party to the Protocol on Environmental Protection.
- (123) The Meeting expressed its condolences to Australia on the passing of Mr. Hawke. The Meeting agreed that the ATCM should continue to encourage all non-Consultative Parties to adopt the Protocol, and several Parties expressed their willingness to join future démarches. The Meeting welcomed the efforts made by Colombia, which was in an advanced stage of the ratification process, and congratulated Colombia on its hard work.
- (124) The Russian Federation introduced WP 57 *The Antarctic Treaty in a Changing World*. Noting that 2019 marked the 60th anniversary of the Antarctic Treaty, the Russian Federation recommended enhancing cooperation between the Consultative Parties in identifying and addressing current and future trends that may affect the Antarctic Treaty System. The Russian Federation encouraged Parties to discuss these issues and to reflect the outcomes of those discussions in the Multi-Year Strategic Work Plan.
- (125) The Meeting thanked the Russian Federation for its paper, which provided an important reflection on issues and challenges related to the protection and conservation of Antarctica. Parties affirmed that, over the past 60 years, the Antarctic Treaty System had endured and peacefully resolved a variety of challenges, and expressed their confidence in its ability to continue doing so.

- (126) The Meeting reaffirmed its commitment to the fundamental principles of the Antarctic Treaty, especially Article IV, which the Meeting saw as its indispensable cornerstone, noting that it had further affirmed this commitment through the Prague Declaration.
- (127) Following further discussion, the Meeting agreed to include a new item on the Multi-year Strategic Work Plan and to conduct informal consultations identifying relevant issues and trends which could include, *inter alia*, an overview of the application of Article IX (2) of the Antarctic Treaty; a general analysis of the relationship between the ATS and other relevant international legal frameworks; and consideration of Antarctic-related activities by persons that were not under the jurisdiction of States Party to the Antarctic Treaty. The Meeting requested the Executive Secretary to open the ATCM Forum for this purpose and accepted an offer from the Russian Federation to moderate the consultations.
- (128) The Meeting further agreed to consider the outcomes of these informal consultations and to identify issues and trends for further consideration at ATCM XLIII.
- (129) Belarus presented IP 96 *On the intention of the Republic of Belarus to request for the recognition of the Consultative Party status*. The paper outlined the history of Belarus' exploratory and scientific expeditions to Antarctica, as well as its Antarctic activities since 2006, when it acceded to the Treaty. These activities included: drafting domestic legislation necessary to approve recommendations and Measures adopted by the ATCM and later approved by all the Consultative Parties; becoming an associate member of SCAR; becoming a Member of COMNAP; constructing a wintering station, with the intention of developing a year-round scientific program; and developing Belarus' international collaborations. Belarus reiterated its commitment to strengthening the Antarctic Treaty System and notified the Meeting that it intended, in the near future, to submit a request for Consultative status to the ATCM.
- (130) The Meeting thanked Belarus for its paper and the information provided on its Antarctic activities and its intention to request for Consultative status in the near future.
- (131) The following papers were also submitted under this agenda item, and taken as presented:
- IP 56 *The Harmonisation of Turkish Law to the Protocol on Environmental Protection to the Antarctic Treaty* (Turkey). The paper provided a brief report on Turkey's work towards the domestic implementation of the Protocol on Environmental Protection to the Antarctic Treaty.
 - IP 73 *Antarctic Parliamentarians Assembly 2-3 December 2019: London* (United Kingdom). The paper provided information about an Antarctic Parliamentarians Assembly, to be hosted by the United Kingdom Parliament's All-Party Parliamentary Group for the Polar Regions, on 2-3 December 2019.
 - IP 158 *The Finnish Chairmanship of the Arctic Council 2017-2019 "Exploring common solutions"* (Finland). The paper reported that the overarching themes of the Finnish Chairmanship of the Arctic Council were the UN 2030 Agenda for Sustainable Development and climate change in the Arctic, and reported on the progress made on those themes.
- (132) The following paper was also submitted under this item:
- BP 9 *National legislation to implement and enforce the Environmental Protocol* (New Zealand).

Item 7: Operation of the Antarctic Treaty System: Matters related to the Secretariat

- (133) The Executive Secretary introduced SP 4 rev.1 *Secretariat Report 2018/19*, detailing the Secretariat's activities in the Financial Year 2018/19 (1 April 2018 to 31 March 2019). The report updated the Meeting on the intersessional activities undertaken by the Secretariat, which included updating the ATS website; editing, printing and distributing the Final Report of ATCM XLI; updating the online CEP Handbook; technical support to intersessional discussions held through both the ATCM and CEP Discussion Forums; updating the ATCM and CEP Rules of Procedure; and updating the Manual for Delegates and the Manual for the Submission of Documents to the ATCM.
- (134) The Executive Secretary reported on the Secretariat's work in meeting the additional logistical and technical challenges posed by the change of Host Country for ATCM XLI, as well as its support of the Host Country Secretariat for ATCM XLII. The Secretariat also assisted the work of ATCM ICGs and informal discussion groups in the 2018/19 intersessional period, as well as the intersessional work of the CEP, which included subsidiary groups, informal discussions and the Joint SCAR/CEP Workshop on Further Developing the Antarctic Protected Area System.
- (135) The Executive Secretary informed the meeting of the following changes to Secretariat personnel:
- Mr Diego Wydler, current Information Technology Officer of the Secretariat, was selected as the new Assistant Executive Secretary and would be taking over the position on 16 July 2019. He would replace Mr. José María Acero, who was retiring.
 - Ms Violeta Antinarelli, Librarian of the Secretariat, retired on 31 December 2018.
 - Mr Walter Papaserge was appointed as a part-time Information Technology Specialist from 1 February 2019, replacing some of the current Information Technology Officer functions.
- (136) Regarding financial matters, the Executive Secretary noted that the extra organisation costs for ATCM XLI were projected to have been USD 321,700. The actual expenditure totalled USD 230,925, resulting in a deficit of USD 18,811 for the past financial year, which was covered by the General Fund as agreed by the Parties. In accordance with Financial Regulation 6.3, the Parties were notified of the Secretariat's cash surplus which took into account unpaid contributions.
- (137) The Meeting thanked the Secretariat for its report and for its efficient and cautious use of funds, as well as for its work meeting the challenges posed by the organisation of ATCM XLI. The Meeting also expressed its gratitude for the significant improvement of the translation and interpretation at the Meetings, which it deemed crucial for the success of the CEP and ATCM.
- (138) The Executive Secretary introduced SP 5 rev. 2 *Secretariat Programme 2019/2020*, outlining the activities proposed for the Secretariat in the Financial Year 2019/20 (1 April 2019 to 31 March 2020).
- (139) The Executive Secretary noted that the needs of the CEP and ATCM had evolved since the Secretariat's establishment in 2004. Given this, the Executive Secretary considered it necessary to conduct an analysis of the organisational structure of the Secretariat. To this end, he requested authorisation to contract an internationally recognised consulting firm to provide support for this analysis. The Meeting approved the expenditure to hire an external consulting service to support this analysis, and agreed that it could be extracted from the general fund without affecting the proposed annual budget.
- (140) The Executive Secretary also introduced SP 6 *Five Years Forward Budget profile 2020/21–*

2024/25. He stated that the budget profile assumed no major changes in the years 2020 to 2025 and amounted to a zero-nominal increase in contributions until 2024/25. He mentioned that the Secretariat would be inviting bids for translation and interpretation services, as the current contract would be ending.

- (141) Several Parties expressed their support and appreciation for the Secretariat and its maintenance of zero nominal growth, which allowed for contributions to remain consistent until 2024/25.
- (142) The Secretariat's Information Officer introduced SP 8 *The Secretariat Website* and provided a demonstration of the beta-version of the new website. He highlighted the improved user interface, the addition of workspaces relevant to the ATCM and CEP, and database interfaces that delegates would find useful. He thanked France and Australia for their contribution of images to the historical picture databank and invited delegates to browse the beta-version of the website and send their feedback to the Secretariat. It was announced that the final version of the website would be released during the second half of this year.
- (143) Several Parties commended the Secretariat for the improvements made to the website, noted that it was much more accessible, and stated that they looked forward to its timely completion.
- (144) Following further discussion the Meeting adopted Decision 3 (2019) *Secretariat Report, Programme and Budget*.
- (145) The Meeting thanked the Executive Secretary and the Secretariat for the detailed reports and acknowledged the important work undertaken by the Secretariat.
- (146) Argentina introduced WP 38 *Report of the Informal Discussions on Human Resource Policy for ATS*. Argentina recalled that, at ATCM XL, after reviewing matters related to the functioning of the Secretariat, the Meeting requested the Executive Secretary to develop a paper on human resource policy for the Antarctic Treaty Secretariat staff. In response to this requirement, the Secretariat presented SP 7 to ATCM XLI, which briefly listed the human resource policy issues that, in the opinion of the Executive Secretary, would be useful for the ATCM to consider. After considering SP 7, ATCM XLI requested that the Secretariat develop a more detailed proposal and consider whether the staff regulations already in place at the CCAMLR Secretariat could be taken as a model. In order to facilitate discussion on these matters, Argentina agreed to lead informal discussions in consultation with the Secretariat.
- (147) Argentina summarised the comments and suggestions of those Parties that participated in the informal discussions, noting that the discussion focussed on the main topics described in the Secretariat's proposal: seniority, special and compassionate leave, unpaid leave of absence, performance evaluation, and retirement age. The Parties also agreed that special and compassionate leave, as well as unpaid leave of absence, should follow local law and international best practice, and be formally included in the staff regulations. Participating Parties had also concluded that there was a need to establish a regulation to determine a retirement age that was in accordance with Argentine law.
- (148) As a result of the informal discussions, Argentina recommended that the Meeting consider amending the Annex to Decision 3 (2003) on Staff Regulations.
- (149) The Meeting thanked Argentina for leading the informal discussions. It reiterated that the policy should be in line with local law and take international best practices into account.
- (150) Upon request, the Secretariat informed the Meeting that the proposed amendment of Regulation

10.5 of the Staff Regulations regarding involuntary separation of service would not have any immediate budgetary implications. The amendment would, however, require the Secretariat to request authorisation to establish a new “Involuntary separation from service” fund to be filled to a suitable level from the General Fund. Following this explanation, the Meeting authorised the Secretariat to establish a new fund for these purposes.

- (151) With respect to leave entitlements, Argentina informed the meeting that a footnote was added to the Staff Regulations to clarify that point 7.10, 7.11, and 7.14 stem from Argentine Law. Some other Parties noted that the purpose of the footnote was to note the source of the benefits, not to prejudice decisions by future ATCMs and the Secretariat about those benefits.
- (152) The Meeting agreed to make two amendments to the staff regulations with respect to gender, to better align the regulations with international best practice. It agreed that, in the text of Staff Regulations, reference to staff members in the masculine gender shall apply to staff members of both sexes, unless it was clearly inappropriate from the context to do so. The Meeting further agreed that, with respect to the composition of Secretariat staff, qualifications being equivalent, gender and geographic balance would be taken into account when selecting candidates.
- (153) In response to a query from some Parties, Argentina stated that matters pertaining to disciplinary procedures and legal recourse in the case of disputes had not been discussed intersessionally. The Meeting agreed that further discussion on these matters was required.
- (154) The Meeting also agreed to further consider the need for performance review mechanisms within the Secretariat. While some Parties preferred 360-degree and external feedback mechanisms, other Parties expressed the view that the choice of review mechanism should remain the responsibility of the executive staff of the Secretariat. Some Parties also suggested that discussions could be initiated to introduce a mechanism by which the Parties could provide feedback on the Executive Secretary’s performance.
- (155) With respect to seniority and salary scale, Parties had requested the Secretariat to consider a new general staff salary scale. The Meeting considered four alternative amendments to the salary scale put forward by the Secretariat. It was agreed that there was a preference for those alternatives that would not have budgetary implications. To reach agreement on a revised salary scale, the Meeting requested the Secretariat to consider whether a more dynamic salary scale could be an additional option to avoid inequalities between new and existing staff, as well as significant budgetary implications.
- (156) The Meeting agreed to continue the considerations of these outstanding issues of the Staff Regulations at ATCM XLIII.
- (157) **Following further discussion, the Meeting adopted Decision 4 (2019) *Staff Regulations for the Secretariat of the Antarctic Treaty*.**
- (158) The following paper was also submitted under this item, and taken as presented:
- IP 125 *Pasantía en la Secretaría del Tratado Antártico* (Colombia). This paper reported on an internship undertaken by a representative of the Ministerio de Relaciones Exteriores de Colombia at the Antarctic Treaty Secretariat.

Item 8: Liability

- (159) As agreed at ATCM XLI, the Chair reported that the Secretariat, on behalf of the Parties, had

renewed the invitation to the IOPC Funds, the IGP&I Clubs and the IMO to provide advice on issues relating to Annex VI to the Protocol. The Meeting welcomed the participation of these groups.

- (160) The IOPC Funds presented IP 155 *The International Oil Pollution Compensation Funds (IOPC Funds)*, which introduced the IOPC Funds' policy on claims for pollution damage. The IOPC Funds noted that its framework of liability and compensation for oil pollution damage was broad and well-established, as that it had 40 years of experience in dealing with pollution accidents. It noted its considerable experience with dealing with oil spills, and drew Parties' attention to the fact that 116 States were Parties to the 1992 Fund Convention, including most Parties of the Antarctic Treaty.
- (161) Five types of pollution damage were highlighted by the IOPC Funds in IP 155: property damage; costs of clean-up operations at sea and on shore; economic losses by fishermen or those engaged in mariculture; economic losses in the tourism sector; and costs for reinstatement of the environment. The IOPC Funds observed that, while damage to property would be covered in the event of an accident in the Antarctic, the cost of reinstatement to environment was particularly important when considering the Antarctic environment. It suggested that international criteria, which had been codified in its Claims Manuals, could be applied in the Antarctic context.
- (162) The IOPC Funds noted that, with respect to claims for environmental damage, compensation was not paid based on an abstract quantification nor for damages of a punitive nature; instead, preference was given to Net Environmental Benefit Analysis (NEBA) and Spill Impact Mitigation Assessment (SIMA) methods, which compared options that offered an appreciable environmental and/or economic benefit with natural recovery alone. In concluding, the IOPC Funds offered its continuing expert assistance to the ATCM in the furtherance of the entry into force of Annex VI, and invited the ATCM to request an Observer status in the Meetings of the IOPC Funds' governing bodies, so as to better facilitate a sustained and informative interaction between the stakeholders.
- (163) The Meeting thanked the IOPC Funds for their presence and informative presentation, which it considered would prove helpful in the advancement of the adoption of Annex VI.
- (164) Many Parties highlighted the IOPC Funds' wealth of experience in addressing oil spills, and its conclusion that international criteria pertaining to oil spills would be applicable in the Antarctic context. The significance of the pre-existing knowledge and expertise on addressing oil spills that was available outside the ATS was underlined, and also the importance of many Parties already being engaged in the work of the IOPC Funds.
- (165) Some Parties noted the importance of harmonising international regulations regarding insurance with domestic legislation, as well as the importance of standardising regulations and of finding the equilibrium of limits of liability within different systems in order to eliminate legal uncertainty.
- (166) Noting that the number of both private and governmental ship-bound voyages to Antarctica was rapidly growing, Parties highlighted that the urgency of implementing Annex VI was higher than ever before, and that cooperation with insurance and liability expert bodies offered significant potential benefits.
- (167) The IGP&I Clubs presented IP 101 *Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty: Financial Security* and thanked the Meeting for this opportunity to continue the discussion on Annex VI in which it had already participated at ATCM XL. As the IGP&I Clubs represented a consortium of 13 underwriting associations providing third party liability to

approximately 90% of the world's ocean-going tonnage, it noted that most vessels in Antarctic waters would have insurance cover with one of their members. This insurance included cover for environmental damage from ship-sourced pollution damage and the preventive measures taken to reduce the risk of the occurrence of any such damage, and would in principle cover liabilities of ship-owners as prescribed under Article 6 of the Annex.

- (168) In IP 101, the IGP&I Clubs introduced its views on a number of specific issues following on from its earlier observations in ATCM XL – IP 87 (*Liability Annex: Financial Security*). IGP&I Clubs emphasised that, as global insurance companies, the Clubs supported robust international regulation of insurance as this provided harmonisation and legal certainty. They would therefore continue to do their best to assist the ATCM in its work wherever they could. The IGP&I Clubs drew the attention of the Meeting to the relationship between the limits of liability as enshrined in Annex VI Article 9 and the 1976 Convention on Limitation of Liability for Maritime Claims and its Protocol of 1996. Owing to developments in the Limitation of Liability for Maritime Claims (LLMC) regimes since 1996, it noted that there were several different limits of liability in existence with a possibility that the disparity could increase in the future. Noting that Annex VI limits had fallen behind those updated in the 1996 Protocol, the IGP&I Clubs highlighted that this might create some uncertainty for Parties, especially since the Annex VI limits had originally been set at the levels of the LLMC and the original intent may have been to maintain a degree of equivalence between the regimes.
- (169) The IGP&I Clubs also identified certain jurisdictional issues. It noted that problems may arise in situations where a claim was initiated under Annex VI simultaneously with proceedings in a State party to the 1976 LLMC Convention but not to the Annex. The Paper observed that this would raise the question as to whether the courts in such a circumstance would stay proceedings in light of the other related proceedings if already commenced, and whether the courts would recognise any such related proceedings. It was also observed that the power of the ATCM to triennially review the limits of liability set in Articles 9(1)(a) and 9(1)(b) under Article 9(4) might not in and of itself change Article 9(2)(a), where the limits remained worded as such. The IGP&I Clubs instead noted a more dynamic manner of revision might be desirable.
- (170) For Parties that had not yet implemented Annex VI domestically, the IGP&I Clubs suggested referring to the legislation of the United Kingdom, which had sought to deal with these and other relevant insurance matters in its Antarctic Act 2013. Finally, the IGP&I Clubs offered its continuing assistance and cooperation to the ATCM in the furtherance of the implementation of Annex VI.
- (171) Recalling its previous contributions to ATCM discussions, the IMO provided an update on its liability and compensation regime for incidents of pollution from oil, ship's bunkers, wrecks and hazardous and noxious substances. The IMO noted that the Convention on Civil Liability for Oil Pollution Damage had 139 Contracting States; the Convention on Civil Liability for Bunker Oil Damage had 94 Contracting States; the Convention on the Limitation of Liability for Marine Claims had 58 Contracting States; The Convention on the Removal of Wrecks had 44 Contracting States; and the 1992 Oil Pollution Compensation Fund Convention had 116 Contracting States. Further, the IMO observed that the majority of Parties were also Parties to the 1992 Oil Pollution Compensation Fund Convention. Recognising that implementation was a challenge, the IMO highlighted that the existing regime for liability and compensation for pollution damage to the marine environment was comprehensive but complex. The IMO also recommended its Integrated Technical Assistance Programme to the ATCM as a model for encouraging further ratifications of Annex VI. Considering their common interest in liability, the implementation of the Polar Code,

and IMO safety, security, and environmental regimes, the IMO suggested establishing a memorandum of understanding between the Antarctic Treaty Secretariat and the IMO, and invited the Secretariat to apply for IMO consultative status.

- (172) The Meeting thanked the IGP&I Clubs, IOPC Funds and the IMO for their valuable insights, and decided to extend invitations to the experts to attend ATCM XLIII. Some Parties stated that these updates provided reassurance that insurance cover could be provided for oil spills at sea. It was, however, noted that there may be an issue with the provision of insurance with regards to land-based environmental emergencies. In order for the Meeting to consider issues regarding land-based environmental emergencies involving aircraft, the Meeting agreed to also extend an invitation to the International Civil Aviation Organisation (ICAO) to attend ATCM XLIII as an external expert.
- (173) Recalling Decision 5 (2015), the Meeting discussed the 2020 deadline for taking a decision on the establishment of a time-frame for the resumption of negotiations on liability, in accordance with Article 16 of the Protocol. While stressing the distinction between the resumption of negotiations on liability in accordance with Article 16, and amending Annex VI, some Parties also suggested that it may be necessary to update Article 9(2) of Annex VI upon its entry into force, in order for it to be brought into line with recent developments in other relevant liability instruments. While some Parties pointed to the complexities of amending a provision that had yet to enter into force, others noted that ship owners under the LLMC already had to insure their vessels for environmental damage in Antarctica as in other parts of the world, and that reviewing Article 9(2) might ultimately assist the Parties that were yet to ratify it.
- (174) The Meeting agreed to request the Secretariat to prepare a report, summarising all relevant measures and resolutions and previous advice from the CEP relating to environmental remediation and liability matters, in the intersessional period. The Meeting also requested that the Secretariat prepare a report on the limits of liability in relevant international instruments, to inform the considerations at ATCM XLIII on the implications of liability limits, for the potential future amendment of the limits in Article 9(2) of Annex VI.
- (175) The Russian Federation presented IP 112 *Approximate list, scope and character of response actions in the Antarctic as identified by the Antarctic Treaty System bodies*, which provided a follow-up to ATCM XL – IP 145 (*Approximate list, scope and character of response actions*). It highlighted the need for discussion on national response actions by exchanging relevant national practices prior to the entry into force of the Annex VI. Having done an overview of experience existing within the ATS, the Russian Federation drew the Meeting's attention to a number of useful products and tools relevant to identifying the scope and character of response actions including COMNAP and SCAR's Antarctic Environmental Monitoring Handbook, the CEP's updated *Clean-Up Manual*, and the ATCM's *Guidelines on Contingency Planning, Insurance and Other Matters for Tourist and Other Non-Governmental Activities in the Antarctic Treaty Area*. Recognising the desirability of the entry into force of Annex VI, the Russian Federation urged all Parties to continue to adopt common approaches while relying on the relevant instruments existing within the ATS.
- (176) Consultative Parties provided updated information on the status of their approval of Annex VI, and implementation of Annex VI in domestic legislation. Of the 17 Parties that had approved Annex VI (Australia, Ecuador, Finland, Germany, Italy, the Netherlands, New Zealand, Norway, Peru, Poland, the Russian Federation, South Africa, Spain, Sweden, Ukraine, the United Kingdom and Uruguay), five reported that they were applying domestic legislation implementing Annex VI pending the entry into force of Annex VI (Finland, the Netherlands, Norway, the Russian Federation and Sweden). Other Parties noted that their legislation would enter into force when

Annex VI came into force. Among non-Consultative Parties, Turkey advised that it had ratified Annex VI on 14 February 2017. Parties who had not yet done so were encouraged to provide information to the Secretariat regarding their domestic legislation implementing Annex VI and other relevant instruments.

- (177) Several Parties noted that they stood ready to share their experiences and to provide assistance to other Parties if requested.
- (178) The Meeting agreed to continue to evaluate the progress made by Consultative Parties to ratify and adopt Annex VI: Liability Arising From Environmental Emergencies, and thus bring the Annex into effect in accordance with Article IX of the Antarctic Treaty.
- (179) Parties that had not yet approved Annex VI were encouraged to do so as a matter of priority. It was noted that, while over half of the Consultative Parties had approved Annex VI, it had been 14 years since the Annex was adopted, and that progress towards entry into force was slow. However, the Meeting commended the efforts of Parties that had been working towards implementation, and welcomed further reports on progress at ATCM XLIII.

Item 9: Biological Prospecting in Antarctica

- (180) Argentina informed the Meeting of the results of a series of informal discussions it had convened on biological prospecting during the 2018/19 intersessional period.
- (181) The Meeting thanked Argentina for its efforts to facilitate these discussions during the intersessional period, and many Parties highlighted the importance of these informal discussions.
- (182) The Netherlands introduced WP 12 *Information Exchange on Biological Prospecting*, and stated that the paper was of an administrative nature and did not introduce any new obligations or guidelines for the Parties to exchange information. It stressed that the paper focussed on facilitating the sharing of information using the Electronic Information Exchange System (EIES), and referred to the recommendations of WP 12 as a follow-up of Resolution 7 (2005), Resolution 9 (2009) and Resolution 6 (2013). The Netherlands proposed that the Meeting amend Decision 5 (2016) on *Exchange of Information*, and revise the EIES to include lists of Antarctic biological material collected in the Antarctic Treaty Area as well as information on such material included in ex-situ collections.
- (183) The Meeting thanked the Netherlands and expressed general support for the importance of strengthening the exchange of information. While some Parties supported amending the EIES to include data on the collection of biological material, other Parties had concerns with the proposals, in particular concerns that adding additional data elements would add unnecessary burdens to Parties, researchers and the EIES. With reference to their National Antarctic Programmes, some Parties pointed out that their governments only funded basic science in Antarctica, and access to data related to these collections was already publically available according to their established scientific practice.
- (184) Responding to the concerns raised, some Parties suggested that, with respect to information exchange, utilising the EIES could be made voluntary. Many Parties supported this idea, noting that voluntary information exchange could present a first step towards gathering information on collection and use of biological material in Antarctica to inform future discussions on this topic. It was noted that it would be easier to define the term “biological prospecting” after having gathered information on biological material collected in Antarctica, in order to understand the scope of these

activities. One Party questioned the utility of a voluntary information exchange.

- (185) Many Parties recalled previous resolutions of the ATCM reaffirming that the Antarctic Treaty System is the appropriate framework for managing the collection of biological material in the Antarctic Treaty area and for considering its use. Several Parties pointed out that the Meeting should also take into account discussions within other international fora on the matter, including the ongoing negotiations in the United Nations General Assembly on a new implementing agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, and the World Intellectual Property Organization (WIPO).
- (186) Many Parties expressed the view that the lack of consensus on the definition of biological prospecting and the collection and use of biological material had been impeding discussions, and that a common understanding of the scope of the issue at hand could be beneficial for discussions to move forward. Noting that the term “biological prospecting” carried commercial connotations, many Parties considered that it might be helpful to change the agenda item to more accurately reflect the topic under discussion. Some Parties cautioned that changing the term used to refer to biological prospecting in Antarctica would not be enough to address the substantial concerns they held.
- (187) The Meeting discussed several questions related to the longstanding discussions that have taken place at previous meetings of the ATCM on this agenda item. Among the issues raised, and while many Parties stated that the Antarctic Treaty System was the competent framework for managing this issue, the Meeting reflected on whether Antarctica could become the only area where no international instrument was applicable for the collection and use of biological material. It was also asked whether there was a risk that regulation of this issue would be left to other international forums if the ATCM failed to meet its responsibility to regulate the collection and use biological material in Antarctica.
- (188) In response, many Parties answered both of these questions in the negative and reiterated the importance of taking affirmative and prompt action to ensure that the collection and use of biological material was adequately regulated. Noting while progress was slow, these Parties expressed the hope that with the benefit of SCAR’s survey results discussions at ATCM XLIII would prove productive. Other Parties reiterated the need for a clear understanding of the scope and the regulatory necessity for creating another database for the collection of biological data and specimens.
- (189) ASOC reflected that while there had been a number of resolutions regarding information exchange on biological prospecting in the past, progress on this issue remained slow. It further noted that biological prospecting and the collection of biological material took place and that it had an impact on the environment. ASOC supported the recommendation made in WP 12, stating that adopting the Decision would ensure that research carried out in the Antarctic Treaty Area would comply with the purposes of the Treaty and the Protocol.
- (190) SCAR presented IP 53 *Biological prospecting in the Antarctic: An update on the review by SCAR*. Recalling a request from ATCM XXXI to prepare a paper to inform the on-going discussions of biological prospecting, it informed the Meeting that it intended to undertake a survey of its members concerning biological prospecting. SCAR suggested that Parties may wish to encourage their national SCAR representatives to respond to the survey so as to maximise the returns and the comprehensiveness of the results. In providing a progress update, SCAR highlighted a number of challenges in establishing an accurate assessment of bioprospecting activity in Antarctica. These

included that bioprospecting in most cases was not identified as a goal in research activity, and that other terms were often used in place of bioprospecting.

- (191) SCAR reminded the Meeting that there were a number of databases that contained useful Antarctic data on species, collection localities, and collections, including the Antarctic Biodiversity Information Facility, which was linked to Global Biodiversity Information Facility (GBIF), as well as the GenBank genetic sequencing database and the International Barcode of Life Database. Due to advances in technology, data consisted not only of actual specimens, but also of digital records of the genetic sequence data, and images of the specimens concerned. SCAR indicated that it intended to submit a full report, based on survey results, consideration of research literature, and a critical review of the existing databases, to ATCM XLIII.
- (192) The Meeting thanked SCAR for its paper. It agreed that the outcomes of the survey would facilitate further discussion on biological prospecting, and looked forward to considering the outcomes at ATCM XLIII. The Meeting encouraged Parties to participate in the survey, and several Parties indicated their intention to do so.
- (193) Following further discussion, the Meeting agreed to continue informal exchanges of information through the ATCM forum, and to report back to ATCM XLIII. It noted that the Executive Secretary would open the ATCM Forum for this purpose and accepted an offer from Argentina and United Kingdom to co-moderate the discussions.
- (194) The Meeting further agreed to continue focused discussion on the collection and use of biological material in Antarctica at ATCM XLIII. These discussions would, where relevant, build on discussions during ATCM XLII on a possible voluntary exchange of information under the EIES.
- (195) The following paper was also submitted under this agenda item, and taken as presented:
- IP 146 rev. 1 *Biological Prospecting in Antarctica by ROICE Team – Romania* (Romania). This paper presented the results of three scientific expeditions in West Antarctica, King George Island, and Barton Peninsula, conducted by the National Institute of Research & Development for Biological Sciences – ROICE Team together with the researchers of the Korean Polar Research Institute (KOPRI).

Item 10: Exchange of information

- (196) No papers were submitted under this agenda item.
- (197) The Antarctic Treaty Secretariat and COMNAP informed the meeting of their cooperation during the intersessional period since ATCM XL to improve the EIES by reducing duplication and increase compatibility across their respective databases.
- (198) The Meeting asked the Antarctic Treaty Secretariat to continue to improve the EIES during the next intersessional period, and to include this as part of the Secretariat's work programme.

Item 11: Education Issues

- (199) The United Kingdom introduced WP 13 *Two Hundred Year Anniversaries of the discovery of the South Shetland Islands and the Antarctic Continent*, which highlighted its promotion of two forthcoming historical anniversaries. While stressing the importance of relying on evidence that had been validated by historians in public, peer-reviewed journals, the United Kingdom encouraged Parties to use these historical anniversaries to promote Antarctica to a wider audience. The paper,

which traced the evolution of Antarctic science and exploration over a 200-year period, focused on the need to preserve the continent's environment, and to encourage greater diversity and inclusivity in Antarctic science.

- (200) The United Kingdom encouraged Parties to use the Education and Outreach Forum to share their own experiences, and to consider how they could collectively encourage all Antarctic Treaty System states and genders to engage with Antarctic science and policy issues. The United Kingdom recommended that the ATCM:
- Encourage Parties to promote the anniversary of the discovery of Antarctica as a significant event in world history, using the 200-year anniversary as an opportunity to highlight how human activity in Antarctica had moved from exploitation to protection and study; and
 - Urge Parties to share examples and best practices of such activities on the Education and Outreach forum.
- (201) The Meeting thanked the United Kingdom for WP 13. Conscious of the fact that the history of the first sightings of Antarctica were not commonly agreed upon, a number of Parties highlighted their own histories of Antarctic exploration, and reflected on the importance of celebrating and disseminating information about these events. The Meeting observed that 2019 also marked 60 years since the Antarctic Treaty was signed, and noted that this provided an ideal opportunity to promote wider understanding of Antarctica as a whole. Several Parties reiterated that there was no expiration date for either the Antarctic Treaty or the Environment Protocol and that the various events taking place can be used to dispel these myths. The Meeting congratulated all Parties that were undertaking public activities during the upcoming year.
- (202) In relation to WP 13, Argentina stated that it was important for historical anniversaries to consider historical facts in their entirety. In this respect and regarding documented visits and sightings of Antarctica, Argentina stated that, during 2019, it would also carry out commemorative events of the bicentennial of visits and sightings which took place between 1818 and 1820, including the first documented visit of an Argentine vessel to Antarctica.
- (203) ASOC thanked the United Kingdom for the initiative and supported the idea of taking advantage of this anniversary to conduct education and outreach on the importance of Antarctica as a place for peaceful scientific endeavours and environmental protection. ASOC particularly appreciated the focus on diversity since Antarctic science and policy were largely white and male, and stressed that better representation of all Antarctic Treaty System countries and genders would only strengthen the field. Additionally, at a time when the world was facing many international environmental challenges, Antarctica served as a positive example of cooperating for the common good. ASOC and its member organisations looked forward to undertaking activities to commemorate the anniversary and promote Antarctic marine protected areas and other environmental conservation efforts, and expressed a desire to promote similar activities from Parties, Observers, and Experts.
- (204) SCAR drew the Meeting's attention to its plans to celebrate the 200-year anniversary of humans reaching Antarctica during the 2020 SCAR Open Science Conference, which would be held in Hobart. SCAR indicated that this conference would include a focus on the knowledge gained for humankind from activities that had taken place in Antarctica and the Southern Ocean. Recognising the importance of engaging all Antarctic Treaty System countries and genders, SCAR noted that it was in the process of developing further programs for scientists from groups and nations that were not typically represented in SCAR activities. SCAR also highlighted its commitment to broaden the range of scientists involved in SCAR activities.

- (205) Bulgaria introduced WP 33 *Third report of the Intersessional Contact Group on Education and Outreach*, jointly prepared with Belgium, Brazil, Chile, Portugal, Spain and the United Kingdom, which reviewed the Group's activities during the two previous intersessional periods. Bulgaria reported that during the 2018/19 intersession period, engagement in the ICG forum continued to grow. A total of 22 posts and 381 views had been made, with contributions from more than nine Parties, Observers and Experts. Examples of activities included an APECS-EPB Webinar on the Antarctic Treaty and the protection of the environment; the 4th annual APECS International Online Conference; and a Workshop on Polar Education organised by the University of Coimbra. Bulgaria reported that international educational activities such as Antarctica Day and the APECS International Polar Weeks were gaining momentum as focal points, and continued to bring an increasing number of polar scientists together. Bulgaria called on the ATCM to recognise the usefulness of the Forum on Education and Outreach and to advise Parties to continue to promote Antarctica and Antarctic research in their education and public outreach.
- (206) The Meeting thanked Bulgaria and the ICG participants for this paper. Several Parties underlined their continued commitment to education and outreach as one of the core elements of Antarctic cooperation and shared brief synopses of their recent education and outreach initiatives. Many Parties that had not previously participated in the ICG indicated their intention to participate in the forum discussion in the future.
- (207) The Meeting emphasised that education and outreach programmes were important not only for the purposes of informing the public about scientific work, but also for communicating the meteorological, atmospheric and oceanographic changes in Antarctica due to climate change.
- (208) The Meeting agreed to continue the ICG on Education and Outreach for another intersessional period, and agreed to the following terms of reference:
- Foster collaboration at both the national and international level, on Education and Outreach;
 - Identify key international activities/events related to education and outreach for possible engagement by the Antarctic Treaty Parties;
 - Share results of education and outreach initiatives that demonstrate the work of Antarctic Treaty Parties in managing the Antarctic Treaty area;
 - Emphasise ongoing environmental protection initiatives that had been informed by scientific observations and results, in order to reinforce the importance of the Antarctic Treaty and its Protocol on Environmental Protection;
 - Promote related education and outreach activities by Experts and Observers, and encourage cooperation with these groups;
 - Discuss the possibility for creation of an Antarctic Education and Outreach section on the ATS website.
- (209) It was further agreed that:
- Observers and Experts participating in the ATCM would be invited to provide input;
 - The Executive Secretary would open the ATCM forum for the ICG and provide assistance to the ICG; and
 - Bulgaria would act as convener and report to the next ATCM on progress made in the ICG.
- (210) WMO presented IP 49 *An update on the World Meteorological Organization-Scientific Committee on Antarctic Research Joint Fellowship Programme*, jointly prepared with SCAR. Building on the

success of the SCAR Fellowship Programme, WMO announced the May 2019 launch of a joint SCAR/WMO early career researcher fellowship programme. WMO noted that the topic of the fellowship would be relevant to priority areas of WMO and SCAR, and would expose fellows to recent advances in Antarctic research and help them to develop long-term links and partnerships. Recognising the importance of fostering diversity and inclusivity, WMO highlighted that applications from researchers in non-SCAR nations, and from nations that did not have established polar programmes, were particularly encouraged.

(211) The following papers were also submitted under this item and taken as presented:

- IP 69 *Evaluation of Antarctic educational activities* (Portugal, Germany, United Kingdom). The paper presented a report on how to evaluate Antarctic educational activities related to biodiversity.
- IP 95 *Results of PEI International Workshop on Education and Outreach April 2017, Rovereto, Italy* (Italy, Germany, India, Portugal). This paper reported on a Polar Educators International workshop held in April 2017 in Rovereto, Italy, and attended by 76 participants from 12 countries.
- IP 98 *Education & Outreach by IAATO – an update for 2019* (IAATO). This paper provided a brief summary of IAATO's 2018 education and outreach activities, and advocated the benefits of visiting Antarctica when it comes to engaging people in the global value and importance of the region.
- IP 113 *The Monument to Faddey Bellingshausen, Leader of the Russian South Polar Expedition* (Russian Federation). This paper outlined a plan to celebrate the 200-year anniversary of the first sightings of Antarctica by erecting a monument to Faddey Faddeevich Bellingshausen (Fabian Gottlieb von Bellingshausen) at the Bellingshausen station.
- IP 159 *Two Hundred Year anniversary of the Discovery of the Antarctic Continent 2020* (Estonia). The paper described Estonia's plans to commemorate the 200-year anniversary of the first sighting of the Antarctic continent, including an expedition retracing the route of Bellingshausen's voyage from Kronstadt to Antarctica.
- IP 162 *Recent Romanian Antarctic Education and Outreach Activities* (Romania). This paper shared numerous recent education and outreach activities in Romania, including international collaborations.

(212) The following papers were also submitted under this agenda item:

- BP 2 *Javier Lopetegui Torres. Por su capacidad visionaria y aporte al desarrollo de las actuales capacidades de Chile en la Antártica* (Chile).
- BP 11 *Engaging students in science education through polar research* (Poland).
- BP 12 *Antarctica 2021. Global Youth Leaders Expedition* (Canada).
- BP 14 *Colombia sede del XIX Encuentro de Historiadores Antárticos Latinoamericanos* (Colombia).
- BP 26 *Aplicación de Redes Sociales en la Difusión de la Ciencia y Cultura Antártica en el Ecuador* (Ecuador).

Item 12: Multi-year Strategic Work Plan

(213) The Meeting considered the Multi-year Strategic Work Plan adopted at ATCM XLI (attached to SP

1 rev. 2). It considered how to take each priority item forward in the coming years, whether to delete current priorities and add new priorities, and how to best facilitate collaboration between the working groups.

(214) Following the discussion, the Meeting updated the Multi-year Strategic Work Plan and adopted Decision 5 (2019) *Multi-year Strategic Work Plan for the Antarctic Treaty Consultative Meeting*.

Item 13: Safety and Operations in Antarctica

Seminar on the status and impact of hydrography in Antarctic Waters

- (215) Parties recalled that previous ATCMs had stressed the importance of hydrographic surveys in Antarctica, and that ATCM XL had welcomed a proposal by the International Hydrographic Organisation (IHO) to give a seminar on the importance of hydrography in the Antarctic region to the ATCM. The Meeting welcomed representatives from the IHO, noting the IHO's important work in using new techniques to collect, collate and analyse hydrographic data.
- (216) Dr Mathias Jonas, Secretary-General of the IHO, Rear Admiral Patricio Carrasco, and Rear-Admiral Tim Lowe CBE, presented to the Meeting on the history, current status, and importance of hydrography, particularly in Antarctic waters.
- (217) Dr Mathias Jonas, Secretary-General of the IHO, discussed the important role that hydrographic information played in supporting safety of navigation and the creation of marine knowledge. Dr Jonas gave an overview of the IHO, and reminded Parties that the IHO stood ready to assist Parties in all marine-related activities by providing them with fundamental hydrographic data. He stressed the importance of collaboration between the IHO and ATCM in this regard. Dr Jonas reflected on the current drivers of globalisation and their impacts on transportation and preservation of the environment, noting that these were central to the work of the IHO.
- (218) Dr Jonas stated that the IHO thought globally and acted locally, and drew the Meeting's attention to the IHO's Hydrographic Commission on Antarctica (HCA). He explained that the HCA worked on improving the quality, coverage and availability of charting in Antarctica, monitoring user requirements, proposing new applications, and coordinating subsequent actions. While acknowledging the well-established relationship between the ATCM and IHO, Dr Jonas remarked that there were no limits to improving upon this relationship, and that the HCA welcomed new applications for the use of hydrographic data by interested Parties. He concluded by stating that coverage of the Antarctic region was still sparse, and that the IHO looked forward to working with Parties to determine how best to improve this.
- (219) Rear Admiral Patricio Carrasco remarked that it was a privilege for the Chilean Navy's Hydrographic and Oceanographic Service to present its work on user requirements for crowdsourced bathymetry. Noting the increasing volume of ship activity in Antarctica, he highlighted the importance of improving the quality of hydrographic information in order to facilitate marine science and safe navigation. While acknowledging the value of small-scale data collection in Antarctica, Rear Admiral Carrasco stressed that data collection on a much larger scale was needed, especially in coastal areas. He highlighted the work of the Hydrographic Prioritisation Working Group at the HCA.
- (220) Rear-Admiral Tim Lowe CBE noted that hydrographic data was about much more than the production of charts. He stated that most advances in ocean science were based on improved access to and making better use of hydrographic and geospatial data. In this regard, he highlighted the importance of data centricity and noted that effective data management held potential for great

impact in terms of environmental protection, sustainability, prosperity and security. While hydrographic geospatial data was an integral part of ensuring the sustained use of oceans, data for the oceans around Antarctica was sparse. With reference to increased shipping activity around Antarctica, he noted that hydrographic data was key in ensuring safety at sea and informing regulations of maritime activities to avoid negatively impacting Antarctica's fragile ecosystem. He explained how geospatial data and the accompanying technology and standards could provide easy access to emergent, dynamic information such as weather and tides. This in turn could assist in improving disaster planning and response strategies.

- (221) With respect to new technologies, Rear-Admiral Lowe explained that, although autonomous vessels, satellite derived bathymetry and the use of machine learning technology could be utilised in remote areas, they could also have an environmental impact on these areas and needed to be utilised safely. He illustrated the advantages of collaboration in the Antarctic region using the United Kingdom Hydrographic Office (UKHO) collaboration with the Hydrographic Offices of Colombia and Turkey as an example. He concluded by reiterating that hydrographic information drove the production of new marine knowledge.
- (222) Dr Mathias Jonas concluded the presentations by expressing a hope that the Rear Admirals had conveyed the importance of hydrography in Antarctica. He emphasised that significant advancements had been made in the development of technology for collecting and processing bathymetric data and that this had led the IHO to adopt a data-centric approach to its responsibilities. For example, the IHO could ingest a wide range of data to amass the "best available" bathymetry. The IHO could also offer Parties information that went beyond bathymetric charting, such as the geological nature of the sea bed and ocean salinity.
- (223) On behalf of the IHO, Dr Jonas encouraged the ATCM to consider means and ways to implement Resolution 5 (2008) *Hydrographic Surveying and Charting* and Resolution 5 (2014) *Strengthening Cooperation in Hydrographic Surveying and Charting of Antarctic Waters*. He also appealed to Parties to further collaborate with the HCA to set key objectives for hydrographic research in line with ATCM strategic targets and to consider allowing the HCA to report periodically to the ATCM on its progress implementing and making data publicly available through open data GIS services.
- (224) The Meeting thanked the IHO for the presentations, noting that they were clear and informative, and offered practical approaches to improving hydrographic knowledge of Antarctica.
- (225) Argentina emphasised the importance of hydrographic data, particularly in the Antarctic Peninsula region where it has shared SAR responsibilities with Chile and where retreating sea-ice, commercial fisheries and growing tourism were contributing to increased vessel traffic. Argentina noted, however, that there may be economic limitations as to the hydrographic work required, and asked if the IHO had mechanisms to facilitate data collection. The IHO replied that it depended on national partnerships.
- (226) The United States suggested that the IHO should also approach CCAMLR, and referred to the need for data in the Ross Sea Marine Protected Area, where scientific research was a priority. The IHO welcomed the suggestion.
- (227) The Russian Federation noted that financial constraints could hamper the collection of quality-controlled hydrographic data; that most national institutions focussed on specific areas of interest in Antarctica; and that data from ships-of-opportunity may be of lower quality. The Russian Federation proceeded to elaborate on past and future hydrographic research including the one presented in IP 110. It urged Parties to continue with hydrographic research in the spirit of the

Treaty. The IHO congratulated the Russian Federation on its work and reminded the Meeting that, due to sparse coverage of data and improved methodologies, poorer quality controlled data was better than no data.

- (228) The United Kingdom noted that the IHO mentioned collaboration with IAATO and COMNAP and asked if it was collaborating with SCAR in terms of scientific priorities. In response, the IHO confirmed that, while they were collaborating, engagement with IAATO, COMNAP and SCAR could be further enhanced.
- (229) SCAR noted that it had long recognised the importance of bathymetric data, as reflected in SCAR's Expert Group on an International Bathymetric Chart of the Southern Ocean (known less formally as IBSCO), and as endorsed by the IHO and the Intergovernmental Oceanographic Commission (IOC). In particular, SCAR reiterated that high resolution bathymetric data was fundamental for understanding ocean circulation, biogeochemical cycles, and the movement of heat and freshwater on and off the continental shelf. This data was also key for understanding how the ocean interacted with ice shelves, which in turn were crucial for understanding Antarctica's contribution to sea level rise.
- (230) IAATO informed the Meeting that 70% of its current fleet provided hydrographic data from Antarctic voyages. IAATO further noted that it would continue to contribute data in order to broaden knowledge about Antarctica and to improve operational safety.
- (231) COMNAP noted that it had an established relationship with the IHO and that COMNAP representatives attended annual IHO meetings as observers, and IHO observers were invited to relevant COMNAP meetings. COMNAP reported that, with one exception, National Antarctic Programmes were not their countries' National Hydrographic Organisations so they were not the IHO Member. It stressed the importance of strategic relationships built at the national level to improve data collection, submission and charting. COMNAP recognised the rapid advancement in technologies as presented, and noted that the use of hydrographic research equipment on aircraft was important and hoped further information on such technologies could be shared among National Antarctic Programmes. COMNAP suggested that the 2018 IHO *Guidance on Crowdsourced Bathymetry* could be updated to include guidance for airborne bathymetric data collection. The IHO welcomed COMNAP's advice and suggested that this documentation be updated accordingly.
- (232) The IHO thanked the Meeting for the opportunity to present, and noted that it looked forward to further collaboration. It highlighted that the points raised and discussed during the seminar would inform its priorities for hydrographic activities in the Southern Ocean.
- (233) The Meeting reiterated the importance of maintaining a strong focus on collaboration, both through data sharing and logistical coordination. Recognising that pre-season planning, particularly of vessel transits, played an important role in minimising duplication and maximising the opportunities to fill data gaps, the Meeting encouraged Parties to share their priorities and operational plans. Australia noted that it welcomed opportunities to work with other Parties in the data-sparse East Antarctic region in order to increase data availability.
- (234) Recognising the importance of data sharing, the Meeting encouraged National Data Centres to closely link with National Hydrographic Institutes. It encouraged Parties to strengthen their domestic connections with their respective hydrographic offices, in order to facilitate the efficient exchange of data.
- (235) The Meeting acknowledged that as technology had developed, the standard of available data had

also increased. Recognising the value of collecting bathymetric data wherever possible, in order to further human understanding of the sea floor, the Meeting agreed to work with SCAR, COMNAP and IAATO in coordinating hydrographic and bathymetric data.

- (236) The Meeting thanked the IHO and looked forward to future collaborations to improve the state of hydrographic knowledge in Antarctica and the Southern Ocean. The seminar ended.
- (237) Norway introduced WP 61 *Hydrographic Surveying of Antarctic Waters*, jointly prepared with Italy, New Zealand and the United States. Norway drew the Meeting's attention to the lack of data supporting our understanding of the shape of the seafloor within the Antarctic region. In this context, it cited and stressed the importance of recent international efforts developed to obtain, collect, and make discoverable bathymetric data at a global scale such as IHO Data Centre for Digital Bathymetry (DCDB), IHO Crowdsourcing WG and GEBCO Seabed 2030. Norway argued that it was important to develop a global digital crowdsourcing infrastructure that could help obtain, archive and publish bathymetric data, and to which every vessel with depth-measuring equipment (echo sounder) and the means to record data could contribute. Norway highlighted a memorandum of understanding on the collection of data from vessels that was signed between the Institute for Marine Research and the Norwegian Hydrographic Service as an example of best practice. Norway also recalled ATCM Resolution 5 (2008) and Resolution 5 (2014), and noted that the topic continued to be of high importance.
- (238) The proponents of the paper called for a renewed and strengthened focus on the full implementation of the existing resolutions. They encouraged the ATCM and the IHO to agree on a best way forward to ensure that the research vessels, and all vessels operating in the Antarctic region, record depth data and make the data available for scientific and public use, increasing ocean knowledge, and securing sustainable development of our oceans. The proponents of the paper recommended that the Meeting adopt the Resolution attached to WP 61. They also urged Parties to support and encourage hydrographic and bathymetric data owners to review existing data holdings for submission to the IHO DCDB where possible; as well as vessel operators and managers to collect new hydrographic and bathymetric data for submission to the IHO DCDB where possible.
- (239) The Meeting thanked the proponents of the paper, and expressed broad support for WP 61 and the attached Resolution. It acknowledged the continued lack of data available about the seafloor south of 60° South, and noted that the paper presented some practical solutions to a complex problem. Highlighting the importance of collaboration and data-sharing, the Meeting expressed its appreciation to the IHO and HCA for their efforts to improve the quality of coverage and availability of hydrographic data in Antarctica. It also agreed to work with SCAR, COMNAP, and IAATO in coordinating and enhancing the collection and use of hydrographic and bathymetric data. Parties supported the proposal for the IHO to return to the ATCM in two years to discuss actions taken by Parties on this issue.
- (240) The Meeting recognised challenges posed by anthropogenic noise in the Southern Ocean, and highlighted the importance of minimising the impacts of human activity while collecting bathymetric data. It agreed that effective coordination between Parties was an important way of minimising marine traffic and thus mitigating impacts. To clarify the current state of knowledge on the risks of anthropogenic noise to marine mammals in particular, SCAR drew the Meeting's attention to WP 68 *Anthropogenic Noise in the Southern Ocean: An Update paper* for further information on the state-of-knowledge in this area.
- (241) While acknowledging that crowdsourcing could play a role in the collection of bathymetric data, Parties remarked that this should in no way release hydrographic offices of their responsibilities to

produce official nautical charts for safety of navigation.

- (242) Following further discussion, the Meeting adopted **Resolution 6 (2019) *Hydrographic Mapping of Antarctic Waters***.
- (243) Italy presented IP 48 *Italian Hydrographic Institute 30-yrs of exploration in Antarctica*, which detailed three distinct phases in the 30-year collaboration between the Italian National Antarctic Programme and the Italian Hydrographic Institute (IIM). The paper provided an overview of Italy's contributions to seabed mapping, oceanography, geophysics, topography and cartography, and highlighted the IIM's unique capabilities working in remote environments. Italy emphasised the ways in which it had contributed data used in scientific research and ocean mapping navigation activities, in particular with the GEBCO International Bathymetric Chart of the Southern Ocean (IBCSO), and its long-term cooperation with the Argentinian, Chilean and Peruvian Navies. Looking forward, Italy announced the recent acquisition of a new research vessel, the *M/V Laura Bassi*, which was named for the famous 18th century physicist and first Italian woman to be appointed professor.
- (244) Turkey presented IP 64 *Bathymetric Survey Activities of the Turkish Navy Office of Navigation, Hydrography and Oceanography in the Antarctic Region*. Turkey described the bathymetric survey activities of the Turkish Navy Office of Navigation, Hydrography and Oceanography (TN-ONHO) in the waters near Horseshoe Island, and noted that this was part of the Turkish Antarctic Expedition-III (2019). Recognising that surveying was difficult in Antarctic conditions, Turkey stated that it would continue to undertake reliable hydrographic and oceanographic surveys in Antarctica, in order to contribute to improvement of human safety, hydrographic mapping and logistic support in the region.
- (245) Colombia presented IP 123 *Contributions from Colombia in the Elaboration of Nautical Charts in the Antarctic Peninsula*. It detailed the cooperation of the Colombian Antarctic Programme with the programmes of other Parties in oceanographic and hydrographic projects. It stated that collaborations with Chile in 2014/15 and the United Kingdom in 2017/18 had produced a number of detailed maritime surveys and charts of Antarctic waters. It also highlighted that collaboration with Magellanes University in Chile had helped to enhance understanding of glacial morphology, and to calculate loss of depth and thickness of glaciers. Colombia noted that it would continue its work within the framework of the Antarctic Hydrographic Commission. Identifying hydrographic surveying as its strength, Colombia invited other Parties to collaborate with it on projects in the future.
- (246) The IHO thanked the Meeting for dedicating a session to hydrography, and noted that this demonstrated that Parties recognised the importance of the subject. It highlighted two pillars of its work, namely the safety of navigation and that hydrographic information was vital for scientific activity. Reflecting on the importance of cooperation and coordination, the IHO acknowledged the roles of SCAR, COMNAP, and IAATO in the charting of Antarctic waters. It nevertheless stressed the importance of coordination between national research and science domains, as well as national hydrographic organisations. Finally, the IHO urged the Meeting to continue to strive for the best measurements possible, but to continue to work with any available data in the meantime, and noted that it would be happy to return.
- (247) The Meeting thanked the IHO and all those who presented information during the seminar. It was generally observed that scientists were now using technology that collected vast volumes of oceanographic data, and that curating this data in an accessible manner was a high priority. All Parties were also strongly encouraged to ensure that their data collection was linked to their

national Hydrographic Offices.

(248) The following papers were also submitted under this agenda item, and taken as presented:

- IP 80 *Report on the tasks of the Naval Hydrography Service in the Antarctic Continent 2018/19* (Argentina). This paper described the activities of Argentina's Naval Hydrography Service to increase nautical safety and the protection of the Antarctic coastal and marine environment.
- IP 81 *United Kingdom Hydrographic Charting* (United Kingdom). This paper summarised recent work by the United Kingdom Hydrographic Office (UKHO), British Antarctic Survey (BAS) and the Royal Navy in the provision and usage of hydrographic data for navigation. It reported that the United Kingdom had been meeting its commitments under the Hydrographic Commission on Antarctica (HCA) to complete the 25 charts around the Antarctic Peninsula.
- IP 110 *Russian hydrographic studies in the Antarctic in the season 2019–2020* (Russian Federation). This paper described hydrographic and oceanographic studies in the Southern Ocean to be conducted by the Russian Federation to commemorate the 200-year anniversary of the first sighting of Antarctica.

(249) The following paper was also submitted under this agenda item:

- BP 4 *Cartographic plan and update of nautical charts on Antarctica edited and published by Spain* (Spain).

Safety and Operations: Aviation

(250) COMNAP introduced WP 8 *Challenges that might occur in relation to increased air operations in the Antarctic Treaty area: A national Antarctic program perspective*, and presented IP 2 *Overview of aviation activity to inform ATCM discussions*. While noting that air operations were critical in support of Antarctic science, and that the level of air operations in Antarctica was low compared to other parts of the world, COMNAP stressed the need to reduce or mitigate any safety and environmental risks associated with this activity. COMNAP reminded the Meeting that the Antarctic Flight Information Manual (AFIM) included data on Antarctic airfields, and encouraged all Parties to ensure that they regularly updated the AFIM to ensure currency of information. Other information exchange tools included the COMNAP Antarctic Telecommunications Operators Manual (ATOM) and the ATS EIES. COMNAP noted that technology was playing a role in the global aviation industry to de-conflict airspace, and that it was timely to consider this technology for use in Antarctic air operations. In particular, COMNAP drew attention to Traffic Collision Avoidance Systems (TCAS), Autonomous Distress Tracking (ADT) and Automatic Dependent Surveillance Broadcast (ADS-B). COMNAP advocated for enhanced sharing of information between Parties and all air operators concerning flights and other aerial operations. COMNAP further encouraged Parties to cooperate in developing better procedures for situational awareness about the activities of all air operations, including suggesting changes to information sharing with the COMNAP Secretariat.

(251) COMNAP proposed eight recommendations in the paper for ATCM consideration:

- To request that Parties share information of all proposed air operations, in advance of those operations, in order to de-conflict active airspace;
- To improve the clarity and completeness of the EIES Pre-season Operational Information, especially in regards to both "National Expeditions" and "Non-Governmental Expeditions"

in the category "vessels" and "vessel-based expeditions", respectively, to explicitly include a data field requesting information on any/all rotary-wing aircraft that will be in operation or carried on-board the vessel, dates of operation and areas of deployment;

- To improve the clarity and completeness of the EIES Pre-season Operational Information, especially in regards to both "National Expeditions" and "Non-Governmental Expeditions" in the category "aircraft" and "aircraft activities", respectively, to explicitly include a data field requesting information on any/all Remotely Piloted Aircraft Systems (RPAS) that will be in operation, dates of operation and areas of deployment;
- To broaden the request as proposed by ATCM Resolution 1 (2013), paragraph 3c, currently operative as recommending that "national Antarctic operators... provide information for the purpose of maintaining the AFIM" to be more inclusive of all air operators, governmental and non-governmental alike. So as to strongly encourage Parties through their National Antarctic Programmes, their military involved in support to Antarctic operations and to non-governmental actors that intend to operate airfields or run air operations in Antarctic, to actively maintain through COMNAP the currency of their information which informs AFIM and ATOM, and ensured consistency of information across the various data repositories within the ATS;
- To request that all Antarctic air operators, government and non-governmental alike, ensure that they are aware of safety requirements, and have identified alternative landing sites and communicated in advance with those associated with any alternative landing sites, to ensure they are aware that they may be requested to be used as a back-up in an emergency situation;
- That technology advances will continue to support safe and effective air operations in Antarctica. Innovative existing technology now allows for tracking of aircraft in real-time, and Traffic Collision Avoidance System (TCAS). Such technologies should be considered mandatory for inclusion and regular use in all aircraft operating in Antarctica. Parties are encouraged to continue to invest in technologies that will improve efficiency, communications, collaboration and safety in operations;
- That any increase in air activity brings with it increased risks that must be managed or mitigated, and in cases of SAR or emergency it is the national Antarctic programs that are often called upon to respond. This should be considered when Parties are made aware of non-governmental applications for air activities that are not in support of science;
- That COMNAP has good awareness only of governmental air operations. Parties' Competent Authorities that are contacted by non-governmental entities who are proposing to undertake air activities in the Antarctic Treaty area, are encouraged to register that contact with the COMNAP Secretariat for situational awareness of the proposed non-governmental activity and to ensure that if the proposed non-governmental activity is permitted/authorised by the Competent Authority, that the entity is given access to the current release of AFIM and is aware of the SAR agency with SAR responsibilities over the proposed area of operation.

(252) The United States introduced WP 11 rev.1 *Aircraft Autonomous Distress Tracking*, and acknowledged the fact that Parties had always taken safety seriously. The focus on safety was exemplified by the COMNAP SAR workshop, held in New Zealand in May 2019. The United States recalled that ICAO would, as of 1 January 2021, require new commercial aircraft greater than 27,000 kg to have Autonomous Distress Tracking (ADT) capabilities. Such a system would broadcast at least once every minute the location of an aircraft whenever it was considered to be in a distress condition. The United States recalled that all Parties to the ATCM were also members of ICAO and noted that state aircraft such as those used by military, customs, and police services, were not required to follow the new ICAO requirements, although they were welcome to do so. The

United States further recalled that ICAO had intentionally not specified a technology for the ADT device. Considering the harshness and remoteness of the Antarctic environment, the United States proposed that all aircraft operators in Antarctica consider installing the ADT capability even if not required under ICAO standards. It also proposed that all aircraft operators, air traffic services units and rescue coordination centres consider developing efficient procedures for reacting to ADT notifications before 1 January 2021.

- (253) The United Kingdom introduced WP 23 *Improving Safety of Air Operations in Antarctica*, which encouraged the Parties to consider whether the air safety measures in place within the Treaty Area were fit for purpose. The United Kingdom recommended that the Meeting should consider revising Resolution 1 (2013) *Air Safety in Antarctica*, which was already six years old, as it observed that significant developments had taken place in aviation technology during the intervening period. The United Kingdom underlined that the COMNAP Antarctic Flight Information Manual (AFIM) remained crucial in presenting a common set of guidelines for air operations in Antarctica, and that its recent updates and online publication had improved its usefulness further. It pointed out that Resolution 1 (2013), which currently recommended certain actions by Parties in relation to the AFIM but only on a voluntary basis, left some actors, in particular new operators, unaware of the best practices enshrined in the AFIM. The United Kingdom suggested that adherence to the AFIM could be improved if Parties made it mandatory for their operators, as was the case with similar manuals in many other parts of the world. Also, in view of the recent increase in the use of small, private aircraft for sightseeing and similar purposes in Antarctica, the United Kingdom suggested that it would be useful for competent authorities to be able to direct operators to specific guidelines about operating safely in the Antarctic. On these grounds, the United Kingdom recommended that the ATCM: 1) request COMNAP to review ATCM Resolution 1 (2013) and provide advice to ATCM XLIII on whether elements of the Resolution should be updated or strengthened; 2) urge COMNAP to continue work on its position reporting system including incorporating information from non-governmental operators; and 3) request COMNAP to produce a list of safety equipment to be carried by all personned-flight operators within the Treaty Area.
- (254) The United Kingdom introduced WP 24 *Separation of Air Operations in Antarctica*, which recommended that all aircraft be fitted with Automatic Dependent Surveillance – Broadcast (ADS-B) systems. The paper observed that such devices came in various shapes and forms that might be deployed in a wide range of vehicles, from aircraft to small balloons and RPAS systems. The United Kingdom noted that, although this was a different system to the ADT introduced by the United States in WP 11, the technologies could be complementary. The United Kingdom also mentioned a position reporting system developed by COMNAP that could include all governmental and non-governmental aircraft equipped with positioning technology, and to which National Antarctic Programmes had access. The United Kingdom recommended that the ATCM: require the use of ADS-B 'in and out' systems in personned aircraft and helicopters operating in Antarctica; require all RPAS capable of operating beyond the visual range of the operator and untethered balloons with a payload greater than 2 kg to be ADS-B 'out' capable; request COMNAP to consider how a system of runway de-confliction could be implemented; support the continued development of the COMNAP position reporting system; and request that COMNAP consider whether it would be possible for the system to be accessed and inputted into by all permitted/authorised non-governmental aircraft operators.
- (255) Norway introduced WP 60 *Air Operations in the Antarctic – challenges and possible way forward*, which followed up on ATCM XL–WP 46 *Non-governmental operators Infrastructure & Operations related to Air operations – Possible impact on National programs in Antarctica* (Norway, Australia, and the United Kingdom). Norway made two recommendations with a view to

moving forward on meeting the challenges presented by the increase in aviation in the Antarctic. With regards to communication, Norway recommended that the Meeting consider tasking COMNAP and IAATO to survey existing communication and information exchange routines between non-governmental air operators, and report back to the Meeting on how this might be implemented for both governmental and non-governmental air operations. With regard to implementing cohesive codes and standards for Air Operators in Antarctica, it further recommended that Parties discuss the possibility of requiring Air Operators to have national authorisation from their relevant national aviation authorities to operate in the Antarctic. Norway referred the meeting to IP 151 *Norwegian Antarctic Aviation Operations* (Norway) for information on Norwegian Antarctic Aviation Operations.

- (256) IAATO presented IP 143 *Overview of IAATO Operators' Flight Activity*, in which it provided an overview of its Operators' air activities as requested by ATCM XL. The paper described its Operators' flight activity, air traffic management, navigation, flight tracking, weather forecasting, search and rescue, and incident and near-miss reporting and investigation mechanisms. Observing that none of the IAATO Members were air operators, IAATO explained that it was common practice for operators to charter aircraft from specialised air operators that were registered with national authorities, and that these flights were duly reported to competent authorities. IAATO noted that tourist flights departed from Punta Arenas and Cape Town and landed on both blue ice and gravel runways. IAATO confirmed that operators were developing an emergency plan for mutual support between air operators. IAATO welcomed the technical improvements outlined by COMNAP and stressed the importance of the tracking of air assets and de-confliction through the adoption of new technologies. IAATO noted that operators shared their flight information with COMNAP Asset Tracking System (CATS), and that this information was available to Rescue Coordination Centres (RCCs) on request. Highlighting that there currently was no central database for aerial incidents and near-miss situations in Antarctica, IAATO noted there was no real understanding of the state of air safety in the Antarctic. IAATO considered that analysis of such data, should it become available, might help identify risks to air activity and what might be done to mitigate the risks on a practical level.
- (257) The Meeting thanked the proponents of the papers under the agenda item. Noting the potential for increased air traffic in the future, several Parties highlighted the need to consider further means to ensure the protection of the Antarctic environment.
- (258) The Meeting considered the main points raised in discussion and concluded that there was broad support for many of the recommendations in the WPs, as summarised below.
- (259) The Meeting agreed that it would begin a process of reviewing and updating the operative paragraphs of ATCM Resolution 1 (2013).
- (260) The Meeting acknowledged that there was an expansion in the types of air activities being undertaken in the Antarctic, and recognised the safety implications associated with that expansion. In particular, the increase in rotary wing aircraft operating from vessels was identified as a concern. The Meeting identified that further information exchange on such activities was needed, particularly "real time" information.
- (261) The Meeting recognised the importance of AFIM and the need for Parties to keep the information in AFIM current. The Meeting agreed that further work was needed in order to effectively share and encourage use of AFIM beyond COMNAP and IAATO members. With respect to AFIM, the Meeting recommended that the Parties and COMNAP discuss how best to keep information current via the EIES or other mechanisms, and ensure that these do not duplicate other systems. Parties and

Competent Authorities should also ensure that procedures related to the AFIM were both accessible and visible.

- (262) The Meeting reiterated the significance of information exchange and of strengthening communications and routines, and noted that it was vital to ensure there was ongoing communication with those in the field in Antarctica.
- (263) In general, the Meeting supported making use of innovative technologies in order to improve air operations safety. The Meeting requested that COMNAP report at ATCM XLIII on what these technologies might be and how they might be implemented, bearing in mind that improvements in technologies in the future should be taken into account. It noted this report should also include a comparative review of relevant international regulations and recommended technologies that may be applicable in Antarctic air activity.
- (264) While mindful of the fact that government operated aircraft could not be subjected to the mandatory use of certain technologies such as positioning reporting systems, the Meeting agreed that the use of positioning reporting systems and technologies in aircraft operating in the Antarctic was generally desirable. The Meeting requested expert advice from COMNAP as to what these technologies might be, and for best practice as to the appropriate level of inclusion.
- (265) The Meeting suggested that Parties urge air operators to improve their preparedness for the case of incident, accident and emergency in Antarctica. The Meeting requested further information from COMNAP on tracking for SAR purposes, and for guidance on what minimal but non-mandatory survival equipment should be carried. It requested further information from Parties, COMNAP and IAATO as to whether a centralised Accident, Incident, Near-Miss list was needed in order to understand the level of risk.
- (266) The Meeting welcomed the idea of having discussions on the authorisation of aircraft and air operators in Antarctica.
- (267) The Meeting thanked COMNAP for its willingness to continue to work on issues related to air operations, and recognised that such issues went beyond National Antarctic Programme operations. The Meeting agreed that further discussions should be inclusive of all those involved in air operations in the Antarctic Treaty area and as well as other experts.
- (268) The Meeting welcomed information from COMNAP that it intended to convene a workshop on the practical and technical aspects of safe air operations, which would be open to all interested Parties and operators. The Meeting acknowledged the offer by Australia to host this workshop on the margins of the COMNAP AGM 2020, to be held in Hobart, Australia, in August 2020.
- (269) The following papers were also submitted under this agenda item, and taken as presented:
- IP 46 *Benefits of intercontinental aviation cooperation in support of Antarctic science: Australia's experience in 2018-19* (Australia). The paper reported on the high degree of international collaboration in Australia's intercontinental aviation operations, including arrangements during the 2018/19 season with several National Antarctic Programmes.
 - IP 156 *Air traffic flight information arrangements for activities in the Australian Flight Information Region* (Australia). This paper outlined Australia's air traffic flight information responsibilities for activities in the Australian Flight Information Region that included Antarctic airspace, and for which Australia has responsibility under the Chicago Convention on International Civil Aviation.

(270) The following paper was also submitted under this agenda item:

- IP 163 *Guidance for the Operation of Unmanned Aircraft Systems (UAS)* (ICAO). The paper presented a summary of the findings and recommendations of the Arctic Monitoring and Assessment Programme (AMAP) multinational Unmanned Aircraft Systems Expert Group (UASEG). It reported on challenges to UAS-based research in the Arctic.

Safety and Operations: Maritime

- (271) Chile presented IP 14 *Report on the XXth and XXIst editions of the Combined Naval Antarctic Patrol between Argentina and Chile*, jointly prepared with Argentina. Reminding the Meeting that Chile and Argentina were jointly responsible for SAR in the Peninsula Region, the paper reported on the Joint Antarctic Naval Patrol and its activities between 15 November 2017 and 31 March 2018 and during similar period during 2018/2019. Chile highlighted the facilities available in Punta Arenas, Ushuaia and Puerto Williams to assist SAR, logistics and resupply activities. Chile also reported on the monitoring of pollution in areas potentially impacted by shipwrecks, and provisions of medical assistance by the co-proponents. It added that those involved in the patrols were also certified CCAMLR inspectors, and that relevant inspections had been carried out by the patrol where appropriate.
- (272) Argentina stated that it valued the joint cooperative work undertaken together with Chile in these patrols, and noted that, with increasing vessel traffic in the area, both from government-funded as well as privately-owned vessels, the joint patrol provided increasingly useful assistance. It added that the joint patrols were a very useful tool for National Antarctic Programmes, to provide navigation assistance and protect the environment in the area. Argentina stressed that it was committed to continuing the joint patrols in the future.
- (273) Chile presented IP 15 *Search and Rescue cases in the Area of the Antarctic Peninsula, year 2018. MRCC Chile*. It noted the increased number of emergencies during 2018 in Antarctic waters, despite the similar number of scientific and tourist passage ships travelling to the Antarctic Peninsula. It also detailed an incident in which a non-IAATO yacht had run aground, noting that this incident had not produced any adverse environmental impacts.
- (274) Chile presented IP 16 *SAR Exercise modality Table Top Ex between the MRCC, Chile and the JRCC, New Zealand*, which described a desktop SAR exercise carried out in December 2018. During the exercise, procedures were checked and coordination experience was gained for potential SAR activities in the large maritime area surrounding Antarctica. Chile noted that the primary reason for this discussion had been to improve expertise, and increase collaboration between neighbouring Parties. It addressed possible SAR activities that might require coordination between New Zealand and Chile, such as in the event of an accident occurring on aircraft travelling over the Antarctic between the two countries. In this regard, it supported the work done by COMNAP in supporting SAR activities in the region, and confirmed its support of further COMNAP activities.
- (275) China presented IP 85 *R/V Xuelong Collision with Iceberg during Marine Investigation in the Amundsen Sea, the Southern Ocean*, and elaborated on the incident during which the R/V Xuelong collided with an iceberg on 19 January 2019 in the Amundsen Sea at a speed of three knots (5.56 km/h). No passengers aboard were injured. After inspection, it was concluded that the vessel was slightly damaged with no negative impact on navigation. China thanked the Republic of Korea, Chile and New Zealand for their involvement in the evacuation of those on board the vessel, and also extended its thanks to the COMNAP Secretariat. China added that the assistance it had received from other Parties offered was a good example of international collaboration, and

symbolised the spirit of the Antarctic Treaty.

- (276) ASOC thanked China for the information it provided and noted that it was glad that no injuries or fatalities had occurred. ASOC noted that it was important that an analysis of the incident be made available to the IMO to assist in the further development of the Polar Code.
- (277) COMNAP presented IP 88 *Report from the COMNAP Antarctic Search and Rescue (SAR) Workshop IV*, which summarised the discussions at the triennial COMNAP Antarctic SAR Workshop IV, hosted by New Zealand in May 2019, and co-hosted by the Joint Rescue Coordination Centre New Zealand (JRCCNZ), Maritime New Zealand and Antarctica New Zealand. Noting that Resolution 4 (2013) *Improved Collaboration on Search and Rescue (SAR) in Antarctica* recommended that Parties support COMNAP to hold these workshops, COMNAP thanked Parties and IAATO for their support and participation, as well as New Zealand for hosting the workshop. It also urged Parties to share the key messages in IP 88 in regards to safety and preserving human life in Antarctica.
- (278) IAATO presented IP 97 *New IAATO Procedures for Operating in the Vicinity of Whales*, which explained that its members had implemented procedures for operating in the vicinity of whales. These included a 10-knot speed restriction within defined geofenced time-areas or, for operators with a whale strike mitigation training program, the requirement to have a trained watchman on the bridge for the sole purpose of sighting whales within the geofenced time-areas. IAATO noted it would continue to refine and revise its procedures based on the best available information. IAATO thanked ASOC and the United Kingdom for noting its efforts to mitigate whale strikes.
- (279) ASOC presented IP 131 *Emerging Issues for Southern Ocean Vessel Management*. It covered a number of issues related to the environmental impacts of vessels operating in the Southern Ocean including: enforcement of the Polar Code; the creation of the Arctic Council's Polar Code Best Practice Forum; the development of IMO safety measures for non-SOLAS ships i.e. fishing vessels and pleasure craft; work by the IMO on underwater noise mitigation; the need for action through the IMO to address the threats from ship-sourced plastics; and the importance of voyage planning to minimise marine mammal disturbance. ASOC recommended that the ATCM undertake further vessel management actions to improve protection of the Antarctic environment and its wildlife, including agreeing to collaborate meaningfully in the exchange of best practice with respect to the Polar Code, as well as engaging fully in further negotiations on measures for non-SOLAS vessels at the IMO.
- (280) The Meeting thanked Chile, China, COMNAP, IAATO and ASOC for their informative papers.
- (281) Several Parties supported the view that the ATCM should continue to attend to plastics pollution and underwater noise pollution. The United Kingdom encouraged participation in the Arctic Council's Polar Code Best Practice Forum, highlighting that several marine issues were bipolar in nature, and noted that the Secretariat annually circulated an invitation to the Parties. The United Kingdom also expressed its thanks to IAATO, for its recent efforts to reduce potential for vessel collision with whales.
- (282) Drawing the Meeting's attention to negotiations for Phase 2 of the Polar Code, New Zealand thanked ASOC for its paper and noted the importance of seafarers enjoying the same level of safety regardless of the size of the vessel and that the environment should be protected from risks from all types of vessels. New Zealand encouraged Parties to be actively involved in Phase 2 of Polar Code negotiations. The United States noted its appreciation for the various measures proposed by the IMO to improve safety of vessels, and indicated that it can support in principle an IMO work plan

that focuses on the development of voluntary guidelines for non-SOLAS vessels operating in Antarctic waters.

(283) The following papers were also submitted under this agenda item, and taken as presented:

- IP 118 *Incident with a Brazilian container* (Brazil, Poland). This paper described circumstances surrounding a container that had fallen off the *MV Magnolia* in Admiralty Bay and outlined the ongoing efforts to clear debris associated with incident.
- IP 124 *Advances of Colombia in the elaboration of an Environmental Sensitivity Index for oil spills for King George Island* (Colombia). This paper presented Colombia's ongoing development of an Environmental Sensitivity Index for oil spills in the area between Nelson Island and King George Island.

Safety and Operations: Stations

- (284) Chile presented IP 18 *Reconstruction of Fire Extinguishing Service (SEI) facilities at Aerodrome "Teniente Marsh" at Antarctic Air Base "Presidente Frei"*. The paper detailed the changes to fuel supply to Presidente Frei, the main Chilean base, to make use of new technology and apply best practices, in order to improve operative capacity at the base.
- (285) Chile presented IP 19 *Master Plan for the Chilean State: Reconstruction of the Antarctic Air Base "Presidente Frei", towards a new energy matrix and sustainable materials*. This paper also focused on changes implemented at Presidente Frei station to renovate the station, and bring it into line with higher environmental protection standards. Following an announcement from the Chilean President on 19 January 2019 regarding the improvements, preliminary environmental impact assessments had been carried out to ensure environmental impact was kept to a minimum. Chile also mentioned that the fire protection services in the Lieutenant Marsh Building had been renovated to improve operations and safety. Chile stressed that these renovations were crucial to the sector in which the base was located, as the Chilean program was one of the few to operate aviation services around the year, and therefore these safety measures were of paramount importance.
- (286) Chile presented IP 22 *Bahia Fildes Maritime Station: Demolition and Installation Plan*, and provided the Meeting with details of the fire at Fildes Bay naval station on 12 July 2018. Chile noted that there had been no fatalities, but the scientific equipment had been seriously damaged and was in need of replacement. Chile noted that a high level of management had been required to recover and remove debris from the fire over a 1000m² area. Being already in the process of renovating of the Presidente Frei base, Chile had decided to also rebuild the base at Fildes Bay. It estimated that a new and optimised station would lead to a reduced overall environmental impact.
- (287) Spain presented IP 37 *Inauguration of the Remodelling of the Spanish Antarctic Base Juan Carlos I*, which detailed the end of renovation works at Juan Carlos I Base on Livingston Island during the 2017/18 season. Spain noted that the capacity for the base had been significantly increased for both living quarters and laboratory facilities, and its usability had been extended by ensuring that the base made use of renewable sources of energy. Spain invited other Parties to send their scientists to the base, and stated that it was happy to receive anyone wanting to work there.
- (288) Finland presented IP 54 *Summary of the 30 years of Finnish-Argentine collaboration in Antarctic climate research*, jointly prepared with Argentina. It noted that during the past 30 years, Finnish and Argentine scientists had worked together to understand the Antarctic ozone depletion and the changes reflected in the surface ultraviolet (UV) radiation. Recalling that the first ozone sonde was

launched in early 1988, Finland reported that the programme was still active today and that it provided one of the longest continuous vertical ozone data series from Antarctica. Finland noted that this data was available through the WMO database, and thanked Argentina for the excellent long-term collaboration.

- (289) Argentina thanked Finland for the longstanding collaboration on important climate related issues, and noted that combining logistical capabilities was beneficial to both Parties and reflected the spirit of the Antarctic Treaty.
- (290) Poland presented IP 149 *Initiation of renovation of the Henryk Arctowski Polish Antarctic Station on King George Island, South Shetland Islands*. Poland noted that the year-round station had originally been built in 1977, and that after 40 years of use, the main building and living spaces were in need of repair and reconstruction. The planned renovations would be carried out over the next six years, and would focus on reducing energy demand and increasing the safety of its logistical operation. Poland noted that the environmental impact of planned renovations was predicted to be minor or transitory.
- (291) The following papers were also submitted under this agenda item, and taken as presented:
- IP 17 *Replacement of the submarine pipeline with floating hoses* (Chile). This paper described the replacement of a submarine pipeline at the Presidente Frei station with a floating hose, which would decrease the base's impact on the marine environment.
 - IP 20 *Electrical interconnection system, towards the decrease of fossil fuel consumption* (Chile). This paper reported on the installation of an electrical grid interconnection system at the Presidente Frei station to improve energy efficiency.
 - IP 55 *Finnish Antarctic Research Station Aboa celebrates its 30th Anniversary* (Finland). This paper noted that, over the past 30 years, the Finnish Antarctic Research Program (FINNARP) had organised 27 expeditions to Aboa and also supported the research activities of other Parties.
 - IP 89 *Modernisation of Australia's Antarctic Program* (Australia). This paper summarised progress on key modernisation activities since the launch of the Australian Antarctic Strategy and 20 Year Action Plan in 2016, and highlighted opportunities for international collaboration.
 - IP 103 *Reconstruction works of the Comandante Ferraz Antarctic Station* (Brazil). This paper presented the current state of the reconstruction of the Comandante Ferraz Antarctic Station (EACF), which had begun in 2015 and was due for completion in the season 2019/20 Season.
 - IP 104 *XXX Brazilian Antarctic Operation* (Brazil). This paper presented a summary of the activities carried out by Brazil during the country's XXXVII Antarctic Operation.
 - IP 114 *Construction of the New Wintering Complex at Vostok station* (the Russian Federation). This paper provided information regarding a project conducted by the Russian Federation to improve logistics of scientific expeditions in central Antarctica by constructing a new wintering complex at Vostok Antarctic station.
 - IP 121 *Artigas Scientific Antarctic Station renewable energy, energy efficiency and management plan* (Uruguay). The paper reported on progress on the renewable energy, energy efficiency and waste management plan that Uruguay was developing for the Artigas

Scientific Antarctic Station.

(292) The following papers were also submitted under this agenda item:

- BP 21 *Implementation of a solar energy capture system in the "Pedro Vicente Maldonado" scientific station* (Ecuador).
- BP 22 *Development of facilities: Advances in the construction of the Command and Control module in Maldonado Station* (Ecuador).
- BP 25 *Implementation of new equipment for the treatment of solid-liquid waste at the "Pedro Vicente Maldonado" Station* (Ecuador).
- BP 27 *Strengthening the safety of navigation and decision-making in the waters adjacent to the "Pedro Vicente Maldonado" Ecuadorian Scientific Station* (Ecuador).

Item 14: Inspections under the Antarctic Treaty and the Environment Protocol

- (293) Chile introduced WP 39 *General recommendations of the joint inspections between Argentina and Chile, in accordance with Article VII of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection*, and referred to IP 83 *Report of the Joint Inspections' Program undertaken by Argentina and Chile under Article VII of the Antarctic Treaty and Article 14 of the Environmental Protocol*, jointly prepared with Argentina. Between 17 February and 2 March 2019, a multidisciplinary team of observers from Argentina and Chile conducted joint inspections of four foreign facilities – Palmer (United States), Akademik Vernadsky (Ukraine), Port Lockroy (United Kingdom) and St. Kliment Ohridski (Bulgaria) - on the west coast of the Antarctic Peninsula. Observers from Uruguay and the Republic of Korea were invited to join the inspection team. On behalf of the inspecting Parties, Chile thanked Ukraine, the United Kingdom, the United States, and Bulgaria for their warm welcome and cooperation during the inspections. It emphasised the mutual benefits of conducting Antarctic inspections, noting that they allowed for direct exchange of expertise and best practices between the experts of different nations.
- (294) As a result of these inspections, and of previous inspection experiences, Chile and Argentina made a series of recommendations focused on: communications; availability of information; information on medical equipment; the availability of personnel; a need for follow-ups from Parties with inspected stations at the following ATCM; and practicalities related to the conduct of the inspections. They emphasised the need for Parties to keep the Antarctic Telecommunications Operators Manual (ATOM) updated. They also noted that the *Checklist A: Antarctic Stations and Subsidiary Installations* (Resolution 3, 2010) should be distributed to all stations, and that all Antarctic personnel be adequately informed on its contents. They noted that having the checklist filled out in advance and kept up to date would be of great benefit to inspectors, who were often limited in time due to logistic or climatic issues. Finally, Chile and Argentina recommended that the Meeting establish an ICG to improve the inspection system, including aspects pertaining to the follow-up of past recommendations made by the different inspection teams.
- (295) Bulgaria thanked Argentina and Chile for their detailed report and for their recommendations. Bulgaria underlined the importance of inspections in the Antarctic Treaty as a valuable tool for learning best practices from other stations. Bulgaria agreed with the recommendations and highlighted that, since its last inspection five years ago, the Bulgarian Antarctic Institute had carefully studied the recommendations it had been given. Bulgaria also informed the Meeting that the difficulties relating to the unusually high snow drift at St. Kliment Ohridski station had ceased,

and much of the waste there was being removed in the coming season. It also highlighted HSM 91 *Lame Dog Hut*, presently the oldest preserved building on Livingston Island, which had likewise been recovered from the snow. Bulgaria noted it was taking seriously all issues and recommendations from the inspection report and welcomed all cooperation to provide a safe and healthy environment for the teams on the base and to more broadly, preserve and protect the Antarctic environment and its wildlife.

- (296) Ukraine thanked Argentina and Chile for their inspections. Ukraine stated its intention to enhance its science programme by providing new scientific facilities, laboratories, waste management measures, and corresponding logistic support, depending on the available resources, in order to meet all recommendations of the inspections. Ukraine also referred to its IP 105 *Follow-up the Recommendations of the Inspections at Vernadsky station since 1999*, which thoroughly reviewed how Ukraine had followed up with recommendations from all the inspections of the Vernadsky station since 1999.
- (297) The United Kingdom thanked Argentina and Chile for their paper and recommendations. It welcomed the recent inspection of Port Lockroy and thanked everyone involved. Having had the opportunity to comment on the draft report (IP 83) it was pleased to see its comments reflected in the outcome.
- (298) The United States thanked Argentina and Chile for undertaking the inspections and for their work on the summary and reports. The United States noted it had been pleased to welcome the inspection team to Palmer station on February 21 and had responded positively to the draft which they had been provided with. The United States reaffirmed the value of inspections as a means of encouraging compliance with the Treaty.
- (299) Australia thanked Argentina and Chile for their papers and recommendations. Australia underlined the importance of inspections as a means of encouraging compliance to the Antarctic Treaty and noted the value provided to all Parties through the sharing of learnings. Australia reaffirmed its commitment to conducting regular inspections under the provisions of the Antarctic Treaty and its Environment Protocol.
- (300) COMNAP appreciated the general recommendation in the inspection report that advised Parties to maintain the information in the ATOM. COMNAP confirmed it would discuss greater accessibility of the ATOM with the Antarctic Treaty Secretariat. In regards to the general recommendation on information on medical facilities at stations, COMNAP informed the Meeting that such information was already included in COMNAP's Antarctic Station Catalogue and could be regularly updated by way of the COMNAP database.
- (301) IAATO also thanked Chile and Argentina for their constructive inspections and report. IAATO noted its operators continued to welcome the inspections as an important learning exercise. Referring to its long history of working with relevant parties, IAATO agreed on the usefulness of prior coordination and stood ready to help facilitate the Antarctic inspections whenever needed.
- (302) Many Parties supported the recommendations, and in particular there was support for improving information sharing, including keeping Checklist A up-to-date as far as feasible, and improving medical facilities. A number of reservations were raised including: being cautious about making the contents of Checklist A public due to the presence of private information; that follow up reports on inspection recommendations, although useful, were not mandatory; and developing systems for tracking inspections could restrict the responsive application of the inspection mechanism.

- (303) Whilst an ICG was not created, the Meeting noted that many Parties would informally intersessionally discuss matters related to inspections.
- (304) The following paper was also submitted under this item, and taken as presented:
- IP 105 *Follow-up the Recommendations of the Inspections at Vernadsky station since 1999* (Ukraine). This paper provided a summary of Ukraine's follow-up actions up with respect to recommendations it had received from all the inspections of the Vernadsky station since 1999.
- (305) The following papers were also submitted under this item:
- BP 7 *Follow-up to the Recommendations of the Inspection at the SANAP Summer Station* (South Africa).
 - BP 10 *Follow-up to the Recommendations of the Inspections at the Eco-Nelson Facility* (Czech Republic).
 - BP 19 *Follow-up to the Recommendations of the Inspection at the SANAE Station* (South Africa).

Item 15: Science issues, future science challenges, scientific cooperation and facilitation

Science Issues and Future Science Challenges

- (306) Australia introduced WP 32 *Future Antarctic Science Challenges. Outcomes of Intersessional Discussions on future Antarctic science challenges*. It also presented IP 87 rev. 1 *Compilation of input from Parties to informal intersessional discussions*, prepared jointly with Finland, India, Spain, Turkey and the United Kingdom. Australia noted that the informal discussions were intended to assist the ATCM in its further consideration of the Multi-Year Strategic Work Plan priority item to "Consider outcomes of intersessional discussions on strategic science priorities". The proponents recommended that Parties make their strategic science plans available to other Parties; explore opportunities for geographic focused collaborations; and share information and experiences about access and sharing of facilities and platforms.
- (307) Australia reported that participants in the discussions had seen value in sharing information about their science priorities and science plans. To take this forward, Australia suggested that it would be useful to find a way to make it possible for Parties to provide such information, on a non-mandatory basis, in a readily accessible place, such as the Secretariat website, to support understanding of science priorities and science plans, and promote opportunities for cooperation and capacity building.
- (308) The Meeting thanked Australia for these papers and for convening the intersessional discussions. It also thanked those Parties that had contributed information to IP 87. The Meeting reaffirmed the importance of cooperation and collaboration for delivering scientific results, and commended those Parties who had made the sharing of knowledge to serve the needs of the CEP and ATCM a high priority in their strategic plans. Several Parties expressed their support for the idea of establishing a dedicated platform for sharing national research priorities on the Secretariat website, and appreciated the Secretariat's demonstration of where on its website this might be facilitated. While expressing in-principle support for this idea, other Parties reminded the Meeting that several online tools already existed, such as those hosted by SCAR and COMNAP, and that it might be wise to avoid duplication of their tools.
- (309) SCAR thanked Australia for WP 32 and noted that the discussions regarding future science

priorities and challenges were timely given that the current Scientific Research Programmes (SRPs) were coming to a close and would soon be producing syntheses of their work. SCAR also drew attention to its Horizon Scan activities, and noted that a review was underway to assess how well the priorities identified through that avenue were being addressed. SCAR reaffirmed its readiness to collaborate and share information when requested.

- (310) COMNAP informed the Meeting that it shared details of its members' science programmes. It offered to update this information, with the support of Parties, and share these updated details by way of the COMNAP website.
- (311) The Meeting agreed to support the inclusion of a section on the Secretariat website to highlight the key science priorities of National Antarctic Programmes, thus making these easily accessible to all Parties and the general public.
- (312) SCAR introduced WP 37 *Sixty Years of Treaty-Supported Antarctic Science*, which provided an overview of the key themes of Antarctic science in the last 60 years. SCAR highlighted ten milestone achievements relating to: ozone depletion; reducing uncertainty about sea level rise; understanding climate history through ice core investigations; the discovery of subglacial lakes; understanding the life history of the emperor penguin; the discovery of the subglacial Gamburtsev mountains; discoveries related to microbial life in the McMurdo Dry Valleys; the use of the Earth as a camera to study space; discoveries regarding how speciation in the Antarctic was a driver of global biodiversity; and the importance of the Paris Climate Agreement. SCAR encouraged Parties to: 1) Promote to their nations the extraordinary benefit to humankind from science in, from and about Antarctica and the Southern Ocean; 2) Reaffirm their support for scientific investigations in the region, including through the development of an appropriately-resourced scientific workforce for the future; 3) Continue to encourage, facilitate and support scientific exchanges and open access to scientific outcomes and data; and 4) Enhance collaborations with SCAR in its role as the preeminent facilitator of Antarctic and Southern Ocean science, and provider of policy-ready, objective advice to the Antarctic Treaty System and other international agreements.
- (313) The Meeting thanked SCAR and emphasised the high quality of the content, which succinctly summarised key milestones in Antarctic research. Parties noted that SCAR continued to grow and had engaged with scientists, social scientists, and the wider community in a positive way, and reaffirmed the important role SCAR had played in facilitating both scientific research and international cooperation, and providing independent and objective scientific advice. Recognising the importance of disseminating this information to the wider community, the Meeting encouraged SCAR to keep facilitating engagement between Antarctic scientists and other international meetings or fora. It also encouraged SCAR to consider turning WP 37 into an online or print publication for distribution to decision makers and the public.
- (314) The ATCM congratulated SCAR on the occasion of its 60th anniversary and recalled the importance of scientific research to support the work of the ATCM and CEP and adopted the recommendations from SCAR's paper by means of **Resolution 7 (2019) SCAR's Sixtieth Anniversary and the Role of SCAR in Providing Scientific Advice to Support the Work of the Antarctic Treaty System**. The Meeting also warmly congratulated SCAR and Professor Steven Chown on the science lecture, which is summarised in IP 135.
- (315) The United States introduced WP 5 rev.1 *Antarctica as a platform for exploring the universe: Successful international collaborations and recent achievements*. This paper reported on astrophysical research undertaken in Antarctica and outlined the several advantages provided by the high Antarctic plateau for state-of-the-art observations of the universe and its composition. The

United States drew attention to several key studies conducted in the Antarctic on cosmic microwave background radiation and the observation of neutrinos and black holes, and highlighted the role that equipment at South Pole Station, including the IceCube Observatory, had played in both observing neutrinos and creating the first image of a black hole. It referred to IP 4, IP 5, IP 7 and IP 72 as examples of the wide-ranging research that the United States had undertaken in Antarctica.

- (316) In light of exciting recent breakthroughs in astrophysics, and the promise for new discoveries about the mysterious dark energy and dark matter that make up more than 95% of our universe, the United States recommended that the Parties: recognise the achievements of collective efforts to understand the structure and history of the universe and the energy and matter contained within, in particular through research based in Antarctica, and encourage ongoing efforts and increase international collaboration to advance astrophysical research efforts taking advantage of the Antarctic continent as a unique platform for observations. The United States also reiterated the importance of minimising the human footprint in Antarctica, and noted that the United States Antarctic Programme would only support work that was best done or could only be done in Antarctica.
- (317) The Meeting thanked the United States and highlighted the importance of Antarctica as a distinct platform for exploration of the universe. Sweden congratulated the United States and the National Science Foundation on a track record of almost 30 years researching this area, and noted that both the IceCube Project and its predecessor, AMANDA, had been influential in shaping the field of astrophysics. Recognising that Antarctica was an ideal location for conducting astronomy research, China drew attention to the work that had been undertaken at Kunlun Station since its establishment in 2009, and highlighted both supernova discoveries and the positive detection of gravitational wave sources as key achievements. China also acknowledged its collaborations with Australia in astronomy research, and reiterated the importance of ongoing international collaboration. France drew attention to the research that had been conducted out of the joint France-Italian Concordia Station, and underscored the importance of Parties working jointly to develop astronomy projects in Antarctica. The Russian Federation, while welcoming WP 5 rev. 1 presented by the United States, also highlighted the importance of more active use of space technologies in the context of the Antarctic treaty implementation.
- (318) SCAR mentioned that astronomy was identified as a priority in the 2014 SCAR Horizon Scan, and noted the progress that had been made with regards to astronomy in the previous five years. SCAR suggested that its current review of structure and programmes could be an ideal opportunity to highlight the importance of Antarctica as a platform for exploring the universe.
- (319) France introduced WP 41 *The Ice Memory Project*, jointly prepared with Italy. France explained that the overall goals of the Ice Memory project were to collect an ice core archive from the deep layers of key endangered glaciers before they lost their ability to preserve environmental history in optimal conditions, and to store those ice cores in Antarctica on a long-term basis for future generations of scientists and humanity in general. France reported that ice core drilling for this project had commenced in 2016, and the joint French and Italian Concordia Station had been identified as an ideal location for a repository, as it is located on the Antarctic plateau. The paper invited all Parties to participate in and/or support the project with advice or logistics, or through the identification of sites where future repositories could be established in the vicinity of other Antarctic stations. It recommended that the ATCM give its opinion on the project's importance and discuss the possibility of how to open up and coordinate international collaboration to all Parties interested in taking part in the storage of ice cores in Antarctica.

- (320) SCAR expressed support for the project on two grounds. First, it noted the value of ice cores in helping to understanding the Earth's systems, in particular its climate, and acknowledged the fast changes in mountain glaciers. Second, SCAR stressed the unknown future value of ice cores that might arise from new technological approaches, and stated that such advances could add tremendous value to these cores.
- (321) Several Parties indicated support for the project, and the intent to contribute through advice and logistics, however, some Parties expressed concerns about the implications that the Ice Memory Project may have for the introduction of non-native species to Antarctica and the logistical challenges related to the project. In particular, the Parties noted the transfer of ice-cores from other regions could result in an invasive microbial species being introduced into the Antarctic environment in the event the ice cores melted. In light of the wealth of scientific research that had been published on glacier microbiomes, SCAR informed the Meeting that it would be able and willing to prepare an information paper on the subject for the following ATCM, so as to better inform the ongoing discussions.
- (322) The Meeting noted that while the Ice Memory project was of scientific importance and there was broad support for the scientific objectives, many Parties had reservations about practical elements of the proposal and that it was important to pay close attention to any issues that could arise during the EIA process. Highlighting the importance of the project, the proponents noted their confidence that, with the support of the scientific community and by fulfilling the appropriate EIA processes, any issues could be appropriately addressed.
- (323) The following papers were also submitted under this agenda item, and taken as presented:
- IP 3 *The United States National Science Foundation International Advanced Training Program in Antarctic Biology for Early Career Scientists* (United States). This paper reported on a series of advanced training programmes for early career scientists, initiated by the U.S. National Science Foundation in 1994.
 - IP 4 *International Thwaites Glacier Collaboration: The Future of Thwaites Glacier and its Contribution to Sea-level Rise* (United States, United Kingdom). The paper described a joint research programme of the United States' National Science Foundation (NSF) and the United Kingdom's Natural Environment Research Council (NERC) which had been seeking to improve decadal and longer-term (century-to-multi-century) projections of ice loss and sea-level rise originating from Thwaites Glacier.
 - IP 5 *Surprising findings from the Southern Ocean Carbon and Climate Observations and (SOCCOM) Project* (United States). This paper reported novel findings from data collected using 150 robotic floats in the Southern Ocean, which implied that the Southern Ocean might not have the potential to alleviate increasing global atmospheric CO₂ concentrations.
 - IP 6 *The Reference Elevation Model of Antarctica: A New Tool for Supporting Research and Operations on the Continent* (United States). This paper reported the completion of a new high-resolution, publicly-available, time-stamped digital elevation model map of Antarctica, which had made Antarctica the most accurately mapped continent on the planet.
 - IP 31 *Results from the international workshop "The Effects of Noise on Marine Mammals in Antarctica" held in November 2018 in Germany* (Germany). The paper reported on the discussions and recommendations of the international workshop on the effects of noise on marine mammals in Antarctica.

- IP 35 *In situ experiments and sampling of supraglacial environments in Larsemann Hills, East Antarctica* (India). This paper described a series of *in situ* experiments carried out in supraglacial environments in Larsemann Hills during the 2018-19 Antarctic season, as part of the XXXVIII Indian Scientific Expedition to Antarctica.
- IP 111 *Current Ice Core and Paleoclimate Research Activity in the Vicinity of Vostok Station* (Russian Federation). This paper reported on the continuation of international and collaborative paleoclimate research based on studies of ice cores obtained in the vicinity of the Russian Vostok Station.
- IP 135 *SCAR Science Lecture 2019: What Does the Paris Climate Agreement mean for Antarctic and Southern Ocean Environmental Protection?* (SCAR). This paper summarised the SCAR Science Lecture given by Professor Steven Chown (Monash University) at the XLII ATCM on 2 July 2019.

Scientific Cooperation and Facilitation

- (324) WMO presented IP 93 *The International Programme for Antarctic Buoys*, prepared jointly with SCAR. It drew the Meeting's attention to the international sea ice buoy network, highlighting its crucial role for forecasting weather and sea-ice conditions and validating satellite observations and numerical climate models, as well as for research on Antarctic climate and climate change. WMO noted that this community-driven programme was mainly funded through research projects, while receiving some support from the Australian Antarctic Division and the Alfred Wegener Institute in Germany. WMO called on all Parties to encourage broad collaboration with the buoy network and to ensure that buoy data would be included in the network's resources.
- (325) WMO also presented IP 94 *The Year of Polar Prediction in the Southern Hemisphere: Consolidation Phase*. WMO reported that YOPP 2018/19 was currently in the consolidation phase, with a second winter period being planned for March-July 2021. WMO encouraged Parties to share information about the YOPP Data Portal to enable national research communities to make use of the portal and to contribute their own data via their national data centres in an effort to build a comprehensive polar meteorological database.
- (326) IAATO presented IP 141 *The International Association of Antarctica Tour Operators joins Fellowship Program*. IAATO in collaboration with COMNAP will provide a fellowship for early career researchers. COMNAP will assist IAATO to ensure support during the process of selecting an inaugural IAATO fellow. The research focus by the recipient of the IAATO fellowship will be aligned with the objectives of IAATO and add to the understanding of human presence in the Antarctic.
- (327) SCAR presented IP 75 *Update on activities of the Southern Ocean Observing System (SOOS)*, highlighting particular outputs of interest to the ATCM. These included: five regional networks to coordinate the collection of Southern Ocean observations, which the Parties were invited to use as a resource; the Database of upcoming expeditions to the Southern Ocean (DueSouth), a free online database for sharing plans for upcoming voyages, flights and field campaigns; SOOSmap, an online map system for obtaining well-curated and up to date datasets out of 24 aggregated data types; and a coordinated community paper on observational priorities for the coming decade. Acknowledging the potential collaborations outlined by the IHO in WP 61, SCAR encouraged Parties with vessels that had bathymetric mapping capability to consider sharing these data through the SCAR expert group on bathymetric charting.
- (328) The Meeting thanked WMO, IAATO and SCAR for their papers. Turkey noted that it saw SOOS

(IP 75) as a promising tool for delivering Southern Ocean data to all interested stakeholders.

- (329) Chile presented IP 115 *Celebration of the 500th anniversary of the discovery of the Strait of Magellan and the 200 years of Antarctic exploration*. Chile reported that the celebrations were held in Punta Arenas to commemorate the 500th Anniversary of Fernando de Magallanes' journey, in conjunction with similar celebrations in Spain and Portugal. Chile also noted that celebrations would be held in 2020 to commemorate 200 years of Chilean involvement in Antarctic exploration. It highlighted the historic importance of Punta Arenas as a gateway to Antarctica.
- (330) Spain thanked Chile for its celebration of the 500th Anniversary of Fernando de Magallanes' journey, and noted that this journey was an early example of international cooperation. It stated that the Antarctic Treaty System was the modern equivalent of this journey, and that it embodied the same spirit of unity and international collaboration.
- (331) Romania presented IP 137 rev. 1 *Cooperation between Romania and Republic of Korea - Antarctic Scientific Researches and Logistics Facilities 2015 – 2018*, which highlighted the ongoing successful collaboration between Romania and Republic of Korea, following the signing of a memorandum of understanding in 2015.
- (332) Romania also presented IP 161 *Cooperation between Romania and Australia in Antarctica*, which reported that it had celebrated some Antarctic milestones, such as 50 years of diplomatic relations with Australia in the context of Emil Racovita Year 2018. It highlighted a documentary-scientific and artistic exhibition organised by the Romanian Ministry of Foreign Affairs with the support of the National Commission for Antarctic Research (NCAR) of the Romanian Academy. The exhibition recalled Romanian involvement in the joint management of ASMA No. 6 in the Larsemann Hills, where Romania worked alongside Australia, China, the Russian Federation and India, and noted that cooperation was based on the 2005-2015 memorandum of understanding with Australia on the Law-Racovita-Negoita Base.
- (333) The following papers were also submitted under this agenda item, and taken as presented:
- IP 7 *NASA Operation IceBridge: An airborne mission for Earth's polar ice* (United States). The paper described NASA's airborne mission to survey changing polar ice in both the Arctic and Antarctic from 2009 to late 2019 and invited international collaboration to continue this work.
 - IP 36 *A brief review of the activities of the Republic of Belarus in Antarctica in 2006-2018* (Belarus). This paper provided an overview of the Antarctic activities of Belarus in 2006-2018, covering matters of the creation of infrastructure, scientific activities, development of national legislation concerning the Antarctic, and participation in the work of the Antarctic Treaty System organisations.
 - IP 39 *Australian Antarctic Science Program: highlights of the 2018/19 season* (Australia). The paper described Australian scientific activities during the 2018/19 season and highlighted the contributions to the CEP, CCAMLR, and the IPCC.
 - IP 44 *Malaysia's activities and achievements in Antarctic research and diplomacy* (Malaysia). This paper summarised Malaysia's investments and achievements in Antarctic science and diplomacy, and reported on its scientific cooperation with Chilean, Chinese, and other National Antarctic Programmes.
 - IP 45 *Japan's Antarctic Research Highlights 2018–19* (Japan). The paper described Japan's research activities related to high-resolution observations of the Antarctic atmosphere, the

search for an older ice core drilling site in the Dome Fuji area, and high-quality, wide-area, and long-term climate change observations.

- IP 57 *Bulgaria-Turkey Scientific Collaboration in Antarctica* (Bulgaria, Turkey). This paper reported on the international collaboration between the XXVII Bulgarian Antarctic Expedition and the III Turkish Antarctic Expedition near Livingston Island and Horseshoe Island.
- IP 58 *Colombia-Turkey Scientific Collaboration in Antarctica* (Colombia, Turkey). The paper highlighted the collaboration between the Istanbul Technical University Polar Research Center and the Colombian Antarctic Program in the context of the III Turkish and V Colombian scientific expeditions to Antarctica.
- IP 59 *Turkey-Chile Scientific Collaboration in Antarctica* (Turkey). This paper reported on the successful collaboration of the III Turkish scientific expedition to Antarctica with the Chilean Antarctic Institute and the Chilean navy.
- IP 60 *Turkey-Korea Scientific Collaboration in Antarctica* (Turkey). The paper reported on collaboration between the III Turkish Antarctic expedition and the Korean Polar Research Institute and highlighted that the Republic of Korea had hosted Turkish and international researchers at the King Sejong Station in late 2018 and early 2019.
- IP 61 *Turkish Antarctic Expedition (TAE - III) 2018 – 2019* (Turkey). This paper summarised Turkey's third expedition conducted under the National Polar Science Program during the 2018/19 season and listed the scientific and outreach projects carried out in its context.
- IP 62 *Turkish Scientific Projects at Belgium's Princess Elisabeth Station in Antarctica* (Turkey). The paper described the international collaboration between the III Turkish scientific expedition and Belgium's Princess Elisabeth Antarctica station during the 2018/19 Antarctic season.
- IP 63 *Antarctic Publications by Turkish Scientists* (Turkey). This paper highlighted scientific papers that had been published by Turkish Antarctic researchers and summarised polar education and outreach activities.
- IP 65 *Installation of Automatic Weather Station in Antarctica* (Turkey). This paper reported on the installation of an automatic weather station at the Turkish temporary station during the third Turkish Antarctic Expedition.
- IP 66 *Investigation of the Prospective Mapping Studies in Antarctic Peninsula* (Turkey). The paper reported on prospective mapping studies by Turkey during its third Antarctic science expedition, such as GPS measurements on Horseshoe Island.
- IP 67 *Signing of Memorandum of Understanding with Belarus* (Belarus, Turkey). This paper reported on the signing of a memorandum of understanding between the Republic of Turkey and Belarus on 16 April 2019, regarding the methods and priorities of scientific cooperation.
- IP 72 *The U.S. Antarctic Marine Living Resources (AMLR) Program leverages advanced technologies and international collaborations in a changing fiscal landscape* (United States). This paper described the core research activities of the U.S. AMLR Program which had conducted integrated ecosystem assessments around the Antarctic Peninsula since 1986.
- IP 79 *Report on activities of the Argentine Antarctic Institute - Year 2018* (Argentina). The paper summarised results of the work of the Argentine Antarctic Institute in 2018, focusing

on scientific production, conferences, capacity building, the representation of Antarctic research in Argentina's research academy, scholarships, external funding, outreach activities and other aspects.

- IP 106 *The conception of the new State Research Program in Antarctica for 2021-2030* (Ukraine). This paper described the Ukraine's intentions to revise its current Antarctic research programme for the period 2021-2030 and invited colleagues to participate in collaborative and interdisciplinary research at the Verdansky station.
- IP 116 *Open Call to "Media coverage of the LV Antarctic Scientific Expedition (ECA 55)"* (Chile). The paper reported on Chile's outreach project which had invited media professionals and audiovisual producers to travel to the Antarctic Peninsula to report on Chilean scientific and logistical activities during the Antarctic season 2018-2019.
- IP 126 *Scientific, logistical and operational collaborations in the framework of the V Colombian Antarctic Scientific Expedition. Austral summer 2018-2019* (Colombia). This paper introduced Colombia's scientific, logistical, operative and technical collaborations with Chile, South Korea, Brazil, Bulgaria, Ecuador, Spain, Peru, Turkey and Uruguay that occurred during its V Scientific Expedition to Antarctica.
- IP 127 *2019/2020 PROANTAR Research Projects* (Brazil). The paper described seventeen projects planned for the 38th Brazilian Antarctic Expedition for 2019/20.
- IP 147 *Twenty-Sixth Scientific Campaign from Peru to Antarctica - ANTAR XXVI* (Peru). This paper noted that over 158 scientists from Peru, Argentina, Colombia, Portugal and Chile participated in 22 research projects during Peru's 26th Antarctic campaign.
- IP 152 *International LAGO project: advances in astrophysics* (Peru). The paper reviewed progress made in particle astrophysics research through the advancing implementation of the international LAGO project (Latin American Giant Observatory), dedicated to studying, among other things, space weather and the impacts of cosmic radiation on the atmosphere.

(334) The following papers were also submitted under this agenda item:

- BP 1 *Scientific and Science-related Cooperation with the Consultative Parties and the Wider Antarctic Community* (Republic of Korea).
- BP 6 *South African National Antarctic Program (SANAP): Science Highlights 2018/9* (South Africa).
- BP 13 *V Scientific Expedition of Colombia, austral summer 2018-2019* (Colombia).
- BP 15 *Deployment of a Submarine Robot for biological, oceanographic and geological studies in Antarctica* (Ecuador).
- BP 16 *Obtaining aerial photography using UAV's for cartographic generation 1: 10.000 of the Greenwich Island and the surrounding Islands* (Ecuador).
- BP 17 *Ukraine resumes complex marine expeditions in the Southern Ocean* (Ukraine).
- BP 23 *Scientific activities of International Cooperation during the ECUANTAR XXIII (2018-2019)* (Ecuador).
- BP 24 *XXIII Ecuadorian Antarctic Expedition (2018-2019) – ECUANTAR XXIII* (Ecuador).
- BP 28 *Collection of information on the diversity of bacterial communities in bays and channels of the Antarctic Peninsula with anthropogenic influence* (Ecuador).

Item 16: Implications of Climate Change for Management of Antarctic Treaty Area

- (335) The United Kingdom introduced WP 1 rev. 1 *The Antarctic Peninsula under a 1.5°C global warming scenario*, which provided a synthesis of research and information examining possible changes to the Antarctic Peninsula region under a 1.5°C global warming scenario. The paper detailed a series of changes that had been observed in the region including: a greater degree of warming; an increase in temperature, with up to 130 days per year above 0°C; the acceleration of glacial melting, which was leading to an increase in iceberg production; and the increased threat non-native species posed to native biodiversity. The United Kingdom also mentioned other relevant papers had been submitted to the CEP, such as IP 136 *Antarctic Climate Change and the Environment – 2019 Update* (SCAR) and suggested that this might also be submitted to the ATCM in the future. The United Kingdom requested the Meeting to consider the changes detailed in the report, including with reference to threats to Antarctic infrastructures.
- (336) The Meeting commended the United Kingdom on the paper and reaffirmed that the implications of climate change were a major concern for all Parties. China highlighted the need to continuously strengthen support for scientific research on climate change. Reminding the Meeting of Resolution 4 (2015), New Zealand noted the Committee for Environmental Protection’s Climate Change Response Work Programme (CCRWP) should be treated as a matter of priority. New Zealand further expressed the view that the paper was a good example of a useful synthesis of science to support policy making.
- (337) In response to a query from the Russian Federation on the authorship of WP 1 and on whether or not it had been peer-reviewed, the United Kingdom explained that due to the nature of Working Papers, the lead authors were not mentioned. It specified that the work was led by Professor Martin Siebert of the Grantham Institute for Climate Change and Imperial College London. A peer-reviewed version was published in *Frontiers of Environmental Science* (published online on 28 June 2019).
- (338) The WMO reminded the Meeting that the best-case scenario of 1.5°C was optimistic and that the Parties should also consider the implications of a greater degree of warming.
- (339) SCAR informed the Meeting that, during the intersessional period, it would be conducting a substantial decadal review of the original 2009 *Antarctic Climate Change and the Environment* (ACCE) report. Following up on a suggestion from the Russian Federation, SCAR confirmed that the updates would include regional as well as global components. SCAR also drew the Meeting’s attention to a 2018 report co-authored by several scientists linked to SCAR and stated that it might be useful to inform further discussion. The report, “Choosing the future of Antarctica”, was published in *Nature* (vol. 558, pp. 233-241).
- (340) The Meeting thanked SCAR and was looking forward to the substantial update of the ACCE.
- (341) Norway introduced WP 21 rev. 1 *Overview of outstanding ATME recommendations*, jointly prepared with the United Kingdom. It noted the paper provided a response to a request by ATCM XLI to review the outstanding recommendations from the 2010 Antarctic Treaty Meeting of Experts (ATME) on the Implications of Climate Change for Antarctic Management and Governance. Norway detailed the eight remaining Recommendations and highlighted Recommendation 13, which suggested inviting relevant space agencies to attend future ATCMs in order to give a demonstration of the use of modern space-based technologies for observing Antarctica in the context of climate change.

- (342) The United States recalled that during the International Polar Year (IPY) 2007/08 a Polar Space Task Group had been put together by the WMO. In response, the WMO referred to ATCM XL – IP 114 (*The Polar Space Task Group: Coordinating Space Data in the Antarctic Region*) which detailed the group’s activities. It also suggested that SCAR might be interested in delivering a lecture on the topic at ATCM XLIII. Referring to the work done by its new Earth Observation Action Group (EOAG), SCAR noted it would be happy to do so.
- (343) With reference to recommendations 2 and 5, IAATO stated that its Climate Change Working Group, established in 2009 had been working to implement these recommendations. COMNAP commented that it too considered that recommendation 5 had been satisfied.
- (344) The Meeting thanked Norway and the United Kingdom for their work on WP 21 rev. 1 and reflected on the progress that had been made on the ATME recommendations during the intervening years. The Meeting agreed that addressing the remaining priorities should be a priority for the ATCM, and included relevant amendments to its Multi-Year Strategic Work Plan.
- (345) COMNAP presented IP 47 *Modernisation of Antarctic Stations: Survey results*, noting that the survey was undertaken following a request from the ATCM. COMNAP informed the Meeting that 73% of the 30 COMNAP member National Antarctic Programmes were planning to or were already modernising their Antarctic stations. The principal reason given for the modernisation was aging infrastructure that required modernisation to meet research needs and to improve environmental performance. COMNAP noted that climate change was given as the reason for modernisation in 22% of the responses.
- (346) The Meeting thanked COMNAP for its work on the survey and some Parties noted their ongoing modernisation efforts. Following a question of clarification from Argentina, COMNAP confirmed that all 30 COMNAP members had responded to the survey.
- (347) Chile pointed out that the modernisation work being carried out by National Antarctic Programmes were partly in response to the outcomes of the SCAR 2014 Horizon Scan, which was currently undergoing a five-year review. Chile suggested that COMNAP’s Antarctic Roadmap Challenges document could also undergo review when appropriate. COMNAP replied that the review of the Antarctic Roadmap Challenges outcomes would be considered, and that COMNAP was involved in the review process for SCARs Horizon Scan.
- (348) The Meeting noted that modernisation was being carried out across Antarctica, and that this presented Parties with a unique opportunity to examine how climate change might affect the process of modernisation and to share best practice in regards to modernisation work.
- (349) ASOC presented IP 132 *Limiting global warming to 1.5°: the Antarctic context*, noting that it summarised the *Special Report on Global Warming of 1.5°* released by the IPCC with specific reference to its relevance to Antarctica, and complemented WP 1. ASOC urged the Meeting to move from procedural discussions to climate action. It suggested that climate change and biodiversity be included in EIAs, and that plans be made for reference areas which allowed scientists to distinguish climate impacts from other impacts. ASOC further encouraged the Meeting to support action by 2023 at the IMO regarding reducing emissions from shipping.
- (350) WMO presented IP 164 *Scoping Workshop: Towards Implementing an Antarctic Regional Climate Centre Network*. It noted it was also relevant to the recommendations outlined in WP 21, given that it explored new systems for generating climate predictions and products (Recommendation 14). WMO stated that it had fostered the establishment of climate centres for the polar regions, noting

that an Arctic centre was established in May 2018 and that WMO had encouraged the establishment of a similar centre for the Antarctic. WMO invited interested Parties to attend a scoping workshop in October 2019 in Bologna, Italy, to discuss this further.

Item 17: Tourism and Non-governmental Activities in the Antarctic Treaty Area, including Competent Authorities Issues

Review of Tourism Policies

- (351) The United Kingdom introduced WP 19 *Antarctic Tourism Workshop, 3-5 April in Rotterdam, The Netherlands: Chair's Summary and Key Recommendations*. It also presented IP 11 *Antarctic Tourism Workshop, 3-5 April in Rotterdam, The Netherlands: Chair's Report*. Both papers were prepared jointly with the Netherlands. The United Kingdom informed the Meeting that the Antarctic Tourism Workshop was guided by work presented in IP 26 *Proactive Management of Antarctic Tourism: Time for a Fresh Approach* (Netherlands, New Zealand). The United Kingdom observed that the main impetus of the workshop was the very significant growth in the number of Polar Ships following the negotiations of the Polar Code and IAATO's projections that ship-borne tourism could so much as double in the next few years. Both the workshop and the papers were organised into three sections – growth in tourism, diversification, and compliance – and had resulted in recommendations to the ATCM.
- (352) Specifically, on matters related to growth, the workshop recommended that the ATCM:
- strongly encourage those Parties that had yet to do so to expedite the approval of Antarctic Tourism regulations, notably Measure 4 (2004) and Measure 15 (2009);
 - work with COMNAP, SCAR and IAATO, and on the basis of advice from the CEP, to ensure that guidelines relating to conduct of visitors ashore were in line with current best practice and presented in a format appropriate for all visitors, and that the guidelines were easily identifiable on the ATS website; and
 - explore the idea of levying an administrative fee on tourism operators to support environmental monitoring work, including through considering parallels with the administrative fees levied by CCAMLR on fishing operators.
- (353) The United Kingdom noted that the aim of these recommendations was: to advance work in order to be prepared for the significant growth that IAATO had projected for tourism; that all Antarctic visitor activities conducted either for tourism or recreational purposes of National Antarctic Programme personnel, follow the same rules of conduct; and that the Antarctic Treaty Secretariat had sufficient resources to provide oversight for all visitors as growth continues.
- (354) IAATO informed the meeting that while significant growth was anticipated, all Member Operator activities were planned to have no more than a minor or transitory impact on the environment and were conducted in accordance with guidance provided by the ATCM, whether those instruments had been fully ratified by the Parties or not, and further recognised the importance of long-term monitoring programmes. Specifically, IAATO expressed the opinion that the potential for environmental impact depended less on the number of visitors at a site than how they behaved, and that education and good management practice was key. Lastly, IAATO offered its continued assistance to Parties in developing and reviewing Visitor Site Guidelines, recognising the importance of aligning these with current best practice and making them widely available.
- (355) ASOC expressed its support for all recommendations related to growth. It further encouraged

Parties to consider establishing reference areas to which tourists would not be able to enter. ASOC noted these areas could be compared with visited areas to better assess tourism impacts. ASOC also encouraged Parties to consider the inclusion of seasonal limitations in specific site guidelines.

- (356) Parties noted the importance of ensuring that tourism activities had no more than a minor or transitory impact on the environment and that they did not negatively impact the activity of National Antarctic Programmes. Parties also highlighted the importance of continuing to contemplate and develop a monitoring programme concurrently with exploring funding options for that programme.
- (357) The Meeting thanked the United Kingdom and the Netherlands for their papers and for hosting a very productive workshop. In light of the significant growth projected for the tourism industry, it noted the urgency of discussing these topics.
- (358) The Meeting agreed to the first recommendation and urged Parties that have not done so, to expedite the approval of Antarctic Tourism regulations, notably Measure 4 (2004) and Measure 15 (2009). Argentina informed the meeting that it had made considerable progress towards approving Measure 15 (2009) that was in the final stage of signature of a Presidential decree.
- (359) The Meeting agreed the second recommendation relating to ensuring the site guidelines for visitors were in line with current best practice and presented in a format appropriate for all visitors. Parties recalled that the CEP had advised the ATCM that Germany had agreed to convene an ICG to progress recommendations arising from the Antarctic Tourism Workshop in Rotterdam, which included a task related to addressing the existing site guidance for visitors.
- (360) Several Parties expressed support for the introduction of an administrative fee on tourism operators, but noted the importance of agreeing the rationale for collecting such a fee. The Meeting agreed that further discussions were needed to develop a deeper understanding of how fees could be collected, administered, and used. Interested Parties were encouraged to have further informal intersessional consultation and to submit papers to ATCM XLIII containing concrete proposals describing possible systems for levying fees and administering resulting funds.
- (361) The Meeting welcomed information from CCAMLR describing how it administered fees collected as part of its fisheries notification system. CCAMLR informed the Meeting that it collected fees annually from Members that submitted notifications of fishing activity and that the monies collected were deposited into CCAMLR's General Fund. These monies were used to support the costs of administering the notification system and that CCAMLR Members directed how any remaining funds were spent.
- (362) The Meeting further welcomed information from Norway regarding the revenue from the visitor's fee that goes to the to the Svalbard Environmental Protection Fund. Norway offered to present an information paper on this topic to ATCM XLIII.
- (363) The United Kingdom introduced the second workshop discussion item – tourism diversification – which was concerned with new types of activities and activities happening in a new way or place. It noted that operators may propose new activities to be considered for permit or authorisation directly to a competent authority without first obtaining peer review through IAATO. It highlighted that such actions could result in inconsistent assessment of the new activity across competent authorities.
- (364) To address this issue, the workshop recommended that the ATCM:

- Develop a framework to underpin greater consistency of standards between competent authorities in assessing the potential safety and environmental implications of new or novel activities.
- (365) IAATO informed the Meeting that in response to a request from the workshop to provide Parties with a better understanding of the range of activities IAATO operators currently undertake in Antarctica, it had submitted IP145, *A Catalogue of IAATO Operator Activities*. These were activities from the 2018-2019 season, as reported to Treaty Parties through Post Visit Reports. With reference to the development of a framework for conducting pre-assessments, IAATO drew the Meeting's attention to IP 118, submitted by IAATO at ATCM XXXIV: *Assessing new activities checklist*, which was a framework for IAATO member operators considering any new activity. IAATO noted that Parties may also find ATCM XXXVII – IP 78 *Adventure Tourism Activities undertaken by IAATO Members* to be of interest.
- (366) Parties observed that there were existing frameworks for new activities in other wilderness areas, and suggested using these as examples to develop an Antarctic framework. They further observed that new activities could be productively assessed in relation to goals laid out in Resolution 7 (2009), specifically that all activities focus on enhancing visitor experience and educating them about the environment and its protection.
- (367) The Meeting strongly supported the recommendation to develop a framework that would increase collaboration and the consistency of the evaluation of new activities by competent authorities. It further recognised that the framework would be a tool that would improve understanding of safety and environmental protection issues associated with novel activities and thus assist competent authorities in identifying appropriate mitigation efforts. The Meeting noted that the CEP would undertake intersessional work on the framework and encouraged further informal intersessional consultations.
- (368) The United Kingdom introduced the third workshop discussion item – compliance – which focused on the differences in implementation of existing rules, including surveillance and enforcement, and how to better harmonise standards; questions of jurisdiction over authorisations, including where multiple operators from different Parties were involved; and how to facilitate more effective engagement and dialogue between competent authorities. It noted that standards of vessel and aviation operations were also raised.
- (369) To address this issue of compliance the workshop recommended that the ATCM:
- Invite Parties to identify a working level competent authority contact, in addition to the senior responsible official;
 - Develop Terms of Reference for enhanced engagement between Competent Authorities and establish an ongoing subsidiary group;
 - Develop a proposal for an international tourism observer scheme, building on national experiences and IAATO's model;
 - Continue to reach out to non-Consultative Parties whose operators or nationals engaged in Antarctic tourism activities;
 - Continue to encourage all Parties to ensure they regularly updated the EIES on which tourism and non-governmental activities they have authorised and ask the Secretariat to ensure that this information was made clearer and more obviously locatable on their website;
 - Encourage Parties to include inspections of tourism activities within existing inspection

regimes; and

- Ask Working Group 1 to provide advice on how those operating in Antarctica could most effectively gather and share evidence of suspected non-compliance.

- (370) The Meeting thanked the United Kingdom and welcomed the workshops discussions on issues related to compliance. The Meeting expressed overall support for the general principles reflected in the recommendations.
- (371) The Meeting expressed broad support for the first recommendation. Several Parties highlighted the importance of ensuring Parties identified a working level competent authority contact, noting that, in some cases, the available contacts could be difficult to reach or were not directly involved in daily activities.
- (372) The Meeting concluded that it would be helpful for national competent authorities to be able to hold discussions on the Secretariat website forum regarding their tourism regulatory activities, thus allowing them to exchange knowledge and experiences.
- (373) The Meeting asked the Secretariat to establish such a permanent forum, which would be convened by the Working Group Chair of the tourism agenda item. Participation would be limited to Parties. Issues that could be discussed included:
- a. identifying specific challenges and opportunities for enhanced cooperation in the implementation of the Protocol;
 - b. providing advice to the ATCM on emerging issues related to tourism regulation; and
 - c. formulating advice to the ATCM, via delegations, on specific relevant issues.
- (374) The forum participants may wish to establish a work plan to help its work progress. A further forum would also be provided where discussions could also involve Observers and Experts.
- (375) On the issue of communication among competent authorities, several Parties emphasised the importance of ensuring that national competent authorities were well-supported to do their work and encouraged increasing collaboration and information exchange amongst them.
- (376) The Meeting expressed support for recommendations 4 to 7 under this theme (paragraph 368). In relation to the EIES, the Meeting acknowledged the Secretariat's work on updating the website and recognised the benefits of making information clearer and easily locatable. Parties highlighted that the EIES was only truly efficient if adequately updated and encouraged Parties to submit updated information.
- (377) The Meeting noted several key issues raised by Parties in the course of the discussion, including: the importance of reaching out to non-Consultative Parties involved in tourism activities; that IAATO had relevant materials and resources that could provide a useful starting point for developing guidelines on issues of compliance; that engagement among national competent authorities should be encouraged on a voluntary basis; and that adequate and timely information was the first step to address any potential issues of non-compliance.
- (378) IAATO highlighted that it had long supported enhanced engagement between national authorities and supported strengthening compliance. IAATO referred to IP 138 *IAATO Mandatory Observer Scheme*, which reported on the implementation of a scheme of periodic mandatory observations of all member operations, noting that it represented a significant strengthening of IAATO's efforts to assure itself and other stakeholders that its Operators comply with all IAATO and Treaty policies

and procedures. IAATO also noted that it welcomes Antarctic Treaty Inspections, concluding that it remained committed to working with the ATCM to ensure that visitor activities were safe and had no more than a minor or transitory impact in Antarctica.

- (379) ASOC noted that the workshop recommendations would help with increasing communication between competent authorities as well as with the process of collecting and analysing information about activities on the ground. ASOC encouraged, in particular, the use of tourism inspections within the current inspection regime, which could be complemented with a tourism observer scheme. It recommended that these and other compliance-related initiatives address all modalities of tourism, such as ship-borne tourism, fly-cruise tourism and land-based tourism infrastructure.
- (380) France introduced WP 43 *An on-board observer scheme for tourist vessels operating within the Antarctic Treaty area*, jointly prepared with Argentina and the United Kingdom. This paper called for the establishment of an open-ended ICG to consider the establishment of an on-board observer scheme for tourist vessels operating within the Antarctic Treaty area. France noted that the implementation of such a scheme had been a topic of consideration at the Meeting since 2003, and that the recent tourism workshop in Rotterdam had further drawn attention to the issue. France observed that the implementation of an on-board observer scheme could enable better monitoring of compliance of tourism activities with rules adopted under the Antarctic Treaty System. It noted that such a scheme would also support dialogue between competent authorities and the tourist operators and promote responsible tourism in accordance with the values of the Treaty. France explained that the aim of the ICG would be to present to ATCM XLIII a draft operational framework. The ICG would also consider the establishment of an international observation scheme for tourism activities in Antarctica. France noted a number of outstanding issues that would need to be examined by the ICG, including financial and legal issues. It encouraged interested Parties, Observers, and Experts, in particular ASOC and IAATO, to contribute to the ICG.
- (381) The Meeting thanked France, Argentina, and the United Kingdom for preparing the paper. Acknowledging the growth and diversification of tourism activities in recent years, the Meeting expressed general consensus on the importance of the issues raised by the proponents in the paper. The Meeting further noted the value of a collaborative approach between Parties and IAATO as well as the value of learning from the past experiences of Parties and Observers.
- (382) Some Parties questioned the legal status for the proposed scheme and pointed out the need to clarify the distinction between the proposed scheme and the current inspection scheme within the Antarctic Treaty System. One Party also questioned whether the scheme would be implemented on vessels that do not disembark passengers in Antarctica, which in its view may present conflict with the freedom of navigation of the high seas.
- (383) The Meeting agreed to establish an open-ended ICG on the ATCM online discussion forum on the issue of a voluntary on board Observer operational framework for tourist vessels operating within the Antarctic Treaty area, to propose a draft operational framework that could be implemented, on a voluntary basis, to Parties willing to deploy observers on tourist vessels under their jurisdiction. It further agreed to the following terms of reference for the ICG:
1. To study existing frameworks in order to provide feedback;
 2. To share information and ideas on issues related to a voluntary on-board observer operational framework, as such:
 - The role of observers and the tasks potentially assigned to them;
 - The profile and qualifications required for observers;

- The type of vessel concerned and the frequency of observations;
 - The potential financial issues involved.
3. Depending on progress, to propose a draft voluntary on-board observer operational framework.

(384) It was further agreed that:

- Observers and Experts participating in the ATCM would be invited to provide input, in particular ASOC and IAATO were encouraged to contribute; and
- France would act as convenor and report to ATCM XLIII on progress made in the ATCM.

(385) France introduced WP 51 *Compiling a manual on tourism and non-governmental activities in Antarctica*, jointly prepared with Argentina and the United States. France noted that guidelines, rules, and regulations related to tourism and non-governmental activities in Antarctica were currently dispersed across ATS and Party platforms. It explained that the manual proposed in the paper would bring together all current applicable provisions on tourism and non-governmental activities in the Antarctic Treaty area. It observed that a single, user-friendly manual would offer numerous benefits, including helping to make existing rules more widely known and more effective. It described the proposed structure and process for updating the manual and emphasised that no new provisions would be added to the manual. In particular, it highlighted that applicable law would not be modified. France requested that Parties give their opinion on the relevance of creating the manual described in the paper, including the draft Decision in the Annex. It explained that the Decision would give responsibility for drafting and producing the manual to the Secretariat, which would be supported by interested Parties through an informal contact group.

(386) The Meeting thanked France, Argentina, and the United States for introducing the useful ideas outlined in the paper. Noting the difficulty of accessing disparate documents related to tourism and non-governmental activities in Antarctica, the Meeting expressed its support for the principle of creating a single manual. It noted that such a manual could support competent authorities, operators, and others in complying fully with all relevant rules and regulations. It emphasised the importance of ensuring that the manual would not include national legislation.

(387) Following further discussion, the Meeting adopted Decision 6 (2019) *Manual of Regulations and Guidelines Relevant to Tourism and Non-Governmental Activities in Antarctica*.

(388) The United States introduced WP 67 *Coastal Camping Coordination*, jointly prepared with Canada, which addressed the issue of vessel-supported overnight stays (VSSO), an activity that some non-governmental operators offered to their clients. It noted that several national competent authorities were receiving requests from operators for increasing numbers of campers, including multiple requests related to single sites, and requests related to multiple locations, sometimes related to sites that had not previously been used for coastal camping. The United States noted that the CEP had discussed the issue of coastal camping coordination and addressed some of the key issues and implications. It highlighted that the paper proposed a practical approach to ensure effective results.

(389) It recommended that the ATCM:

- Encourage Treaty Parties to reconsider including explicit guidance on camping in Site Guidelines for Visitors. For example, a statement could be added to the “Visitors” section as to whether camping was advisable and, if so, give the maximum number of campers and show

a preferred camp site (or sites) on the map of the area.

- Promote discussions amongst national competent authorities that currently review coastal camping activities and other interested Parties and Observers to enhance harmonisation on issues such as numbers of campers and camping locations.
- Consider the development of coastal camping guidelines to help ensure consistent application of best practices and minimise impacts to the Antarctic environment.

- (390) The Meeting thanked the United States and Canada for their paper and acknowledged that it related to a very important issue, particularly considering the increasing demand for these kinds of activities in Antarctica. The Meeting acknowledged that valuable discussions on coastal camping and its implications had been undertaken by the CEP and that it would address some of the associated environmental issues during the intersessional period.
- (391) Several Parties reported that their national competent authorities issued permits for overnight stays in Antarctica and noted that further discussions on this issue could be very useful. General support was expressed for the idea of developing guidelines. Some Parties also mentioned that in dealing with coastal camping, communication among national competent authorities should be strengthened and that different approaches to permitting should be standardised.
- (392) IAATO noted that it viewed its operators' camping activities as fitting into one of three categories: deep-field camping, which was usually associated with long expeditions or crossings; coastal multiple-night camping, usually by small expedition groups from small vessels; and short overnight stays, which constituted the most common camping activity and usually involved larger groups remaining ashore for only a few hours. It reported that these and all IAATO activities adhered to Measure 15 (2009). IAATO further noted it had submitted revised guidelines to ATCM XXXVI in IP 98 *IAATO Guidelines for Short Overnight Stays* and noted these were the ones currently followed by IAATO. IAATO concluded that it remained committed to reporting its activities and to assisting the ATCM on this issue.
- (393) ASOC thanked the United States and Canada and noted its appreciation for the paper's focus on minimising the impact of camping activities on Antarctic values and on managing visitor footprint. ASOC noted that Parties needed to assess whether to allow camping activities at sites rather than only assessing how camping should be conducted. ASOC therefore supported the overall recommendation to better coordinate on a consistent approach to the management of camping.
- (394) Parties also noted: the benefits of privileging a site-by-site approach when dealing with camping requests; the usefulness of clarifying and defining different types of coastal camping; the possibility of developing guidelines to help national competent authorities evaluate these activities; the importance of ensuring that further developments related to coastal camping were not seen as an encouragement to these type of activities; and the need to properly assess if coastal camping permits should not be issued to particularly vulnerable sites.
- (395) In order to progress this issue further, and noting that the CEP would undertake significant intersessional work on coastal camping, the Meeting agreed to encourage further informal intersessional consultations. The Meeting suggested that Parties consider and bring forward information on matters related to coastal camping. It was agreed that this issue would be addressed again in ATCM XLIII.
- (396) ASOC introduced IP 128 *Antarctic tourism: Using lessons learned to inform effective, proactive management*, reviewed past tourism discussions and offered a number of lessons learned with

respect to tourism growth. ASOC recommended that the ATCM take action on: the proactive identification of reference areas with representative habitat and biodiversity, where tourism was not a permitted activity; the development of frameworks for the assessment of new activities; and the establishment of precautionary guidelines for new sites. ASOC noted that although tourism discussions had often stalled in the past, decisions by the ATCM, such as Measure 15 (2009), which prohibited landings by ships with more than 500 passengers, demonstrated it was possible to agree to significant measures. ASOC encouraged the ATCM to adopt similarly targeted measures to prevent tourism from having more than a minor or transitory environmental impact.

(397) IAATO presented IP 138 *IAATO Mandatory Observer Scheme*, noting that IAATO maintained an effective system of checks on Operators' adherence to guidelines based on in-field observations conducted by qualified personnel. IAATO reported that currently IAATO Operator's activities had to be observed during its first year of operation of a new/refurbished vessel or field camp, and at least once every five years subsequently. IAATO also noted that, as part of its general policy, it encouraged those who had witnessed a violation of IAATO or Treaty policies to come forward via a whistle-blower or care and concern system. IAATO expressed its willingness to work with Treaty Parties on developing an observation scheme to assist with safe and environmentally responsible tourism to Antarctica.

(398) The following papers were also submitted under this agenda item, and taken as presented:

- IP 24 *Systematic Conservation Plan for the Antarctic Peninsula Project Updates* (SCAR, IAATO), which reported that the joint SCAR-IAATO project aimed to inform the Antarctic community on how best to concurrently manage biodiversity and human activities in the region. It also reported on the establishment of a Liaison Group to provide advice, input, and data to the project and invited interested Parties to contribute by contacting SCAR at scp@scar.org.
- IP 26 *Proactive Management of Antarctic Tourism: Time for a Fresh Approach* (Netherlands, New Zealand). This summarised the key areas related to tourism identified by the Antarctic Tourism Workshop, held in Rotterdam in April 2019, namely: future tourism growth, diversification of tourism activities, and how to enhance compliance.

(399) The following paper was also submitted under this agenda item:

- BP 5 *Experience of an Observer Scheme for Antarctic Tourism in New Zealand* (New Zealand).
- BP 18 *'Arctic wilderness lessons' for regulating and managing tourism in Antarctica. Background Paper on a research project on the protection of Antarctic wilderness* (Netherlands).

Information Exchange and Reporting

(400) Norway introduced WP 59 *EIES – Improving availability of information on non-governmental aviation activity*. Norway recalled Decision 5 (2016), which had updated information exchange requirements to include more detailed information on aircraft activities. Noting recent increases in aviation to and within the continent, Norway had undertaken a short study of the 2018/19 entries into the pre-season report as well as the 2018 annual report. It had observed gaps and inconsistencies in information entered by Parties regarding non-governmental aviation activity, which made it difficult to get a complete overview of air operations in Antarctica. Norway encouraged Parties to enter information for both non-governmental aviation activity and national

expedition aviation activity into the EIES under the “Aircraft Activities” heading, and that they detail individual flights to the greatest extent possible. Norway considered that this information would allow the Secretariat to make summarised reports for both non-governmental and national programme aviation activity, which in turn would give Parties a better overview of activities and developments in their work.

- (401) The Meeting thanked Norway for its paper. Several Parties and Observers reiterated the value of sharing more detailed information on non-governmental aviation activity through the EIES. Some Parties suggested that it might be more efficient to focus on technical solutions related to real-time exchange of information. The Meeting agreed on the importance of providing information on aerial activity through the EIES on a voluntary basis.
- (402) Argentina introduced WP 66 *Reviewing requirements for exchanging information on non-governmental expeditions*. Noting the need for improvements in the ATCMs current information exchange requirements, Argentina proposed a modification to Decision 5 (2016) to more accurately reflect the number of visitors and crew members per trip, and thus achieve more accuracy in the global number of visitors to Antarctica each season through non-governmental activities. Argentina noted that this would build upon the substantial work already undertaken by IAATO, in order to provide a more complete overview of current non-governmental activity in Antarctica. Argentina also noted the need to revise the format and content of Post-Visit Reports, which had not been updated since 2005 despite changes to the requirements for information exchange.
- (403) Argentina proposed that the ATCM: accept the proposed modifications of the information exchange requirements and modify Decision 5 (2016); request that the Antarctic Treaty Secretariat update the corresponding fields in the EIES; establish an ICG to review the compatibility between information exchange requirements and Post-Visit Reports; and encourage Parties to comply with the provision of information on tourism and non-governmental activities under their jurisdiction.
- (404) The Meeting thanked Argentina for its paper. Several Parties reiterated the importance of maintaining comprehensive and up-to-date information on non-governmental activities in order to support evidence-based decision making. Some Parties emphasised that it would be useful to harmonise the IAATO database and EIES to ensure consistency and avoid duplicating information.
- (405) The Meeting agreed to modify the Annex to Decision 5 (2016) by updating section 2.2.2. Non-Governmental Expeditions to include the following fields: the total amount of passengers transported in each journey and the total number of crew members on board of each journey. The Meeting adopted Decision 7 (2019) *Reviewing requirements for exchanging information on non-governmental expeditions*.
- (406) The Meeting agreed to establish an ICG on the Review of Post-Visit Reports, with the following terms of reference:
- To examine the content of the format of the Post-Visit Report contained in Resolution 6 (2005) relative to the information exchange requirements.
 - To propose modifications to the Post-Visit Report that would facilitate full compatibility between the information exchange requirements and these reports.
 - To submit the results of the analysis and the proposed changes to the ATCM XLIII, with the aim of updating Resolution 6 (2005).
- (407) It further agreed that:
- Observers and Experts participating in the ATCM would be invited to provide input;

- The Executive Secretary would open the ATCM forum for the ICG and provide assistance to the ICG; and
 - Argentina would act as convener and report to ATCM XLIII on progress made in the ICG.
- (408) The Secretariat presented SP 7 rev.1 *Visits to Sites and Protected Areas reporting and mapping developments*. The Secretariat recalled that, at ATCM XLI, Parties had noted the desirability of developing an interactive mapping tool on the Secretariat website (based on the Geographical Information tool demonstrated for the inspections database) that could help illustrate visitation over time for sites covered by Site Guidelines. The paper presented developments on the Secretariat website related to the production of reports and geographical information on this matter. The Secretariat noted that the information reports lacked precision in terms of the actual number of people and vessels visiting each site and highlighted that for information on visitation to be accurate, reports to the EIES should include details on all visited sites for each voyage and the exact number of visitors who took part in each visit. The Secretariat reported that it was currently working with IAATO to achieve a better synchronisation between both databases. It further noted that geographic information of other summarised reports of the EIES and database contents hosted by the Secretariat could be integrated in the existing geographical information tool and was open for suggestions.
- (409) The Meeting acknowledged the work of the Secretariat in developing this useful tool and noted its relevance in working towards synchronisation of databases from different organisations. The Meeting highlighted that this paper provided a good example of how the Secretariat proactively worked to respond to the ATCMs needs, supporting it with useful information and spatial tools. It was further noted that, although efforts to enhance and fine tune the EIES system were always welcomed, the Meeting should not wait for enhancements in the EIES to take substantive and timely decisions, noting that abundant information was already currently available.
- (410) In response to a suggestion put forward by Italy, to include information on stations in the map on visits to sites, the Secretariat suggested that it could merge the new map with the map related to inspections based on information provided by COMNAP, which contained detailed information on the stations and their locations.
- (411) In response to a query by the Netherlands, concerning the possibility of including sites without associated visitor site guidelines, the Secretariat confirmed that it was technically able to include all sites, but that the specific request it had received from the ATCM was to only show sites subject to site guidelines. The Secretariat noted that information on sites without guidelines was less accurate than information on sites with guidelines. The Meeting agreed to include sites without associated visitor site guidelines.
- (412) ASOC highlighted the usefulness of this tool and emphasised that it would be relevant to include other sites not subject to guidelines. ASOC also suggested to incorporate, where possible, the activities conducted at landing sites.
- (413) France presented IP 78 *A review of tourist activities authorized by France in the Antarctic Treaty area during the 2017–18 season*. France highlighted that the 2017/18 season had marked an increase in the number of visitors and trips authorised by the French competent authority. France explained that data had been obtained from Post-Visit Reports, which allowed France to clearly identify the area's most frequently visited by tourists and to better understand vessel-based activities, including landings. France also referred to SP 7 and linked its work to work done by the Secretariat to produce reports on visits to sites subject to site guidelines and visits to Antarctic

Protected Areas through interactive maps. France informed Parties of its willingness to exchange information about its system to review tourist activities and its interest in discussing such a system with other competent authorities.

Trends and Patterns

- (414) The United Kingdom presented IP 107 rev. 1 *Data Collection and Reporting on Yachting Activity in Antarctica in 2018-19*, jointly prepared with Argentina, Chile and IAATO. The paper consolidated information relating to yachts that were either sighted in Antarctica, or indicating an intention to travel to Antarctica, during the 2018-19 season. It followed on from previous reports to the ATCM about the number of yachts sighted in the Antarctic during each previous season. It noted that the EIES had remained a useful tool for compiling information related to yachts permitted or authorised to travel to Antarctica. The United Kingdom further encouraged Parties to ensure that yacht records in the EIES were complete and up to date. It highlighted that there had been a growing number of non-IAATO yachts in the database and that the number of non-IAATO yachts had surpassed the number of IAATO yachts. The United Kingdom also drew Parties' attention to Table 3 of the paper which listed unauthorised vessels that had travelled to Antarctica and noted that some of the yachts in the listing were flagged to nations that were not Antarctic Treaty Parties.
- (415) IAATO expressed concern regarding certain activities of unauthorised vessels and their potential for more than minor or transitory environmental impact and that this sets a poor example to those responsible operators and their passengers.
- (416) The Meeting welcomed the analyses contained in IP 107 rev.1 and thanked the co-authors for continuing to conduct these very useful analyses.
- (417) Argentina presented IP 84 *Report on Antarctic tourist flows and cruise ships operating in Ushuaia during the 2018/2019 Austral summer season*. This paper provided information about the flows of passengers and vessels that had visited Antarctica during the 2018/19 Austral summer season, operating from the port of Ushuaia. It noted that the main source of data for this report had been statements from vessel captains. Argentina noted that there had been an increase in the number of vessels, voyages, and number of passengers compared to the 2017/18 season, reaching approximately a total number of 55,000 passengers. The paper updated the data that had been provided in similar papers presented by Argentina to the ATCM since 2009.
- (418) The Meeting thanked Argentina for its report on Antarctic tourism activities that had proceeded from Ushuaia and noted that such information was a very useful contribution to discussions regarding Antarctic tourism.
- (419) IAATO thanked France and Argentina for IP 78 and IP 84 respectively. IAATO said the alternative sources of data is very useful for checking their own data and allows a broader analysis of the data.
- (420) IAATO presented IP 140 rev. 1 *IAATO Overview of Antarctic Tourism: 2018-19 Season and Preliminary Estimates for 2019-20 Season*. IAATO provided data compiled from Post Visit Reports for the 2018/19 season and noted that the numbers reported reflected only those travelling with IAATO Operator companies and did not include those individuals taking part in research projects that had been supported by IAATO Operators. IAATO observed that over 80% of passengers included in the PVRs were nationals of Antarctic Treaty Parties. IAATO reported the overall 2018/19 visitor numbers were 56,168 visitors. IAATO estimates for 2019-20 indicate that passenger numbers will rise to circa 78,504 individuals. Further analysis of these numbers

estimates 60,084 will make landings, and 18,420 of these passengers will travel on cruise only vessels which do not make landings. IAATO emphasised that all IAATO member and operator activities were planned to have no more than a minor or transitory impact on the Antarctic environment and continued to be conducted safely.

- (421) The Netherlands noted that IAATO's estimate of a sharp increase for the 2019/20 season was unprecedented, and that it would be important to consider the cumulative impacts and the potential mismatch between such impacts and the existing guidelines.
- (422) The Meeting thanked IAATO for the annual report and noted that the discussion on the increased activity in the region was highly informative.
- (423) France noted that legal proceedings were under way regarding IP 14 *Notification of the presence of an unauthorized sailing vessel in the Antarctic, with a non-indigenous species on board* (ATCM XLI), and that a follow-up IP would be presented on the topic at ATCM XLIII.
- (424) The following paper was also submitted under this agenda item and taken as presented.
- IP 145 *A Catalogue of IAATO Operator Activities* (IAATO). This paper responded to a request by Parties in attendance at the 2019 Antarctic Tourism Workshop held in Rotterdam, and provided a catalogue, and brief description, of the Operator activities recorded by IAATO in the Post Visit Reports for 2018-2019 season.

Sites

- (425) IAATO presented IP 144 *IAATO Field Operations Manual (FOM)*. IAATO observed that it facilitated its Members and Operators in conducting safe and environmentally responsible Antarctica tourism, by providing relevant information on Antarctic governance, best practices, and industry guidelines. It noted that the core method for delivering this information was the Field Operations Manual. IAATO highlighted that the Manual was updated and circulated annually to IAATO operators.
- (426) The Meeting thanked IAATO for its useful presentation describing its Field Operations Manual.
- (427) The Meeting recognised and welcomed the efforts of the CEP to provide the ATCM with revised Site Guidelines. It highlighted that the CEP's work in preparing and developing new and revised Site Guidelines was very valuable part of the collective efforts to protect Antarctica.
- (428) The following paper was also submitted under this agenda item, and taken as presented:
- IP 142 *Report on IAATO Operator Use of Antarctic Peninsula Landing Sites and ATCM Visitor Site Guidelines, 2018-19 Season* (IAATO). This paper described data collected by IAATO from IAATO Operator Post Visit Report Forms for the 2018/19 season. It reported there was a 1.4% increase in the number of actual landings made from last season. The levels of visits were not uniform, with a few sites continuing to receive the majority of the increase, and others seeing a decrease in activity.

Item 18: Preparation of ATCM XLIII

a. Date and place

- (429) The Meeting welcomed the kind invitation of the Government of Finland to host ATCM XLIII in Helsinki, from 25 May – 4 June 2020.
- (430) For future planning, the Meeting took note of the following scheduled timetable of upcoming ATCMs:
- 2021 France.
 - 2022 Germany.

b. Invitation of International and Non-governmental Organisations

- (431) In accordance with established practice, the Meeting agreed that the following organisations having scientific or technical interest in Antarctica should be invited to send experts to attend ATCM XLII: ACAP, ASOC, IAATO, the International Civil Aviation Organization (ICAO), IGP&I Clubs, IHO, IMO, IOC, IOPC Funds, IPCC, the International Union for the Conservation of Nature (IUCN), UNEP, UNFCCC, WMO and the World Tourism Organization (WTO).

c. Preparation of the Agenda for ATCM XLIII

- (432) The Meeting approved the Preliminary Agenda for ATCM XLIII (see Appendix 2).

d. Organisation of ATCM XLIII

- (433) According to Rule 11 of the Rules of Procedure, the Meeting decided to propose the same Working Groups for ATCM XLIII as observed in this meeting. The Meeting agreed to appoint Theodore Kill from the United States as Chair for Working Group 1 for 2020. It also agreed to appoint Sonia Ramos García from **Spain** and Dr Phillip Tracey from Australia as co-Chairs for Working Group 2 in 2020.

e. The SCAR Lecture

- (434) Taking into account the valuable series of lectures given by SCAR at a number of ATCMs, the Meeting decided to invite SCAR to give another lecture on scientific issues relevant to ATCM XLIII.

Item 19: Any Other Business

a. Declaration on the 60th Anniversary of the Antarctic Treaty

- (435) The Meeting adopted the Prague Declaration on the Occasion of the Sixtieth Anniversary of the Antarctic Treaty, in which all Parties reaffirmed their commitment to the objectives, purposes and principles of the Antarctic Treaty, its Protocol on Environmental Protection, and all other instruments of the Antarctic Treaty System (Appendix 1).
- (436) The Meeting thanked the Czech Republic for its leadership and efforts in the drafting of the Declaration and expressed its warmest congratulations to the ATCM for its 60 years of achievements. The Parties expressed their satisfaction with the final wording of the Declaration, reiterated their deep commitment to its principles, and encouraged its communication and dissemination to as broad an audience as possible.

Item 20: Adoption of the Final Report

(437) The Meeting adopted the Final Report of the 42nd Antarctic Treaty Consultative Meeting. The Chair of the Meeting, Mr Martin Smolek, made closing remarks.

Item 21: Close of the Meeting

(438) The Meeting was closed on Thursday, 11 July 2019 at 13:17