

The Code of Conduct for International Space Station Crews

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Introduction

A broad outline of the Code was already contained in Article 11 of the four above-mentioned MOUs and therefore the drafters had their work mapped out in advance. The Code had to establish a clear chain of command and relationship between ground and on-orbit management, standards for work, responsibilities with respect to elements and equipment, disciplinary regulations, together with physical and information security guidelines. It also had to define the ISS Commander's authority and responsibility to enforce safety procedures, physical and information security procedures and crew-

On 15 September 2000 in Washington DC, the Multilateral Coordination Board (MCB), the highest-level cooperative body established by the Memoranda of Understanding (MOUs) pertaining to the International Space Station (ISS) Programme signed early in 1998 by NASA and each of the Cooperating Agencies designated by the other ISS Partners (i.e. the Russian Space Agency, ESA, the Government of Japan and the Canadian Space Agency), approved the Code of Conduct for International Space Station Crews. This document contains a set of standards agreed by all Partners to govern the conduct of ISS crew members, starting with the first expedition crew launched from Baikonur in Kazakhstan on 31 October 2000. These standards had been developed over the previous six months by teams of Agency officials, working in close consultation with the competent authorities of the Partner States.

rescue procedures for the ISS. As far as the US Space Shuttle is concerned, these matters are covered by regulations adopted under the authority of the legislation that established NASA. Similarly, specific Russian regulatory provisions apply to crew members while being launched or returned on Russian space vehicles or conducting their activities on board the Mir Space Station.

Because of the genuine partnership entailed by Space Station cooperation pursuant to the corresponding Inter-Governmental Agreement (the IGA), it was necessary to develop a Code that could be applied on the various parts of

the Station, bearing in mind that the Partners retain their jurisdiction and control over the flight elements they themselves provide, and over personnel who are their nationals. The negotiations on the Code developed rapidly into a genuine inter-cultural exercise, based not only on the solid experience of human space-flight built up over the last forty years by both the Russian and US Partners, but also on the valuable contributions of the other Partners, which had gained their experience through numerous flight opportunities offered by Russia and the United States in the last fifteen years. In this exercise, an appropriate balance had to be struck between features originating from the military heritage of the USA and Russian astronaut programmes and those needed to firmly establish the civilian and multi-national character of the ISS.

The closest approximation to this Code until then was a 'Standards of Conduct Agreement', which a mission specialist sent by a foreign organisation such as ESA for training in the United States was required to sign before being assigned to a specific US Space Shuttle flight. The main purposes of this document are to obtain the person's consent to be subject to the authority, orders and direction of the Commander, to limit the disclosure of data which are protected, and to refrain from using his or her position or information obtained in the course of the mission for personal gain.

Noteworthy issues covered by the Code

Legal requirements imposed on ISS crew

When reading the Code, one may be surprised by the number and scope of the various sets of regulations that will apply



specifically to ISS crew, bearing in mind that a number of provisions of the IGA and MOUs are also directly relevant to astronaut activities. In addition to the Code itself and the related disciplinary policy, a crew member is subject to the provisions of the ISS Flight Rules and the other requirements imposed by the Cooperating Agency providing him or her, those relating to the Earth to Orbit Vehicle (ETOV) being used for the mission, those defined by the various ISS cooperation bodies listed in Article 11 of the MOUs dealing with various aspects of astronaut matters and, finally, to the requirements contained in the rules of the various institutions hosting the training. It is therefore normal that the Code specifies that the ISS crew member has a right to know about these requirements, and that he or she will be educated as to the applicable rules by the Cooperating Agency providing him or her, through the crew training curriculum and normal programme operations.

The disciplinary policy for ISS crew has been developed by the Multilateral Crew Operations Panel (MCOP), a cooperative body established through Article 11 of the MOUs, and approved at the above-mentioned MCB meeting of 15 September 2000. This policy will be further expanded through detailed documentation being established on the various steps it outlines. It covers matters on which the MCOP will exercise a central role, such as the procedure required for submitting a statement asserting violation of a prescription of the Code by a crew member, examining and making determination on this statement, the manner in

which a decision may be revised, and the type of disciplinary measures that could be imposed depending on whether the violation occurred on Earth or during flight, etc. The interest of this disciplinary policy lies in the implicit recognition by the Cooperating Agencies that their astronauts' behaviour may be subject to a process that is administered not only on the basis of their own personnel policy, but also of rules developed by the ISS partnership.

Issues affecting a crew member as an individual

The prescriptions of the Code apply to an ISS crew member from the time he or she is assigned to a specific ISS expedition until completion of post-flight activities. Some of the provisions, for example those outlining the responsibilities of the Commander on board the ISS, are obviously not relevant to the activities of the astronaut while on the ground, training for the flight, or conducting activities on return from the ISS, although the Commander at these stages is still 'directing the activities of the ISS Crew Members as a single integrated team to ensure the successful completion of the mission'. As mentioned above, the requirements outlined in regulations pertaining to the space vehicle used by the crew member must also be observed. The Code applies to visiting crew members who will be staying on the ISS for only a few days: the basic idea is that, while on board for a visit or a full stay, all crew members are covered by the same legal prescriptions and are subject to the authority of the ISS Commander.



Although the Space Station is in the early stages of construction, it is already permanently occupied

The Code stipulates that a crew member must refrain from any use of that status motivated by private gain. This requirement is not limited in time, but it is understood that each Agency will have to deal with the conditions applicable to post-employment activities of astronauts and determine what is acceptable in terms of compensation, in the form of bonuses, special remuneration for non-government agents, etc. Making a distinction between personal effects and mementos that could be carried on board by the crew members, the Agencies agreed that constraints of manifest, safety and stowage allocation were already sufficient and that there was no need for the Code to spell out the discretion exercisable by an Agency in this regard.



The Station's long-stay crews (blue coveralls) sometimes play host to visiting Shuttle crews

Harassment

One of the Agencies was adamant that 'zero tolerance' must be enforced in or on the ISS for interpersonal or group harassment, as an express provision of the Code. The discussion showed the difficulty of harmonising the Partners' respective legal concepts of harassment in a multi-national environment. In order to accommodate the multiplicity of views, it was decided to repeat in the general rules of conduct for the crew member outlined in Section II of the Code, a sentence originally drafted for the next section pertaining to the Commander's responsibilities. This sentence calls for the need to 'maintain a harmonious and cohesive relationship among the crew and assure an appropriate level of mutual confidence and respect'. In other words, the Agencies recognised that such language would make the application of sanctions possible in a case where the MCOP determined that harassment had taken place.

Authority of the Commander over payloads

An issue discussed during the negotiations was whether or not the authority of the ISS Commander should extend to payloads. One argument advanced was that such an extension could jeopardise the understanding, apparently reached bilaterally between NASA and the RSA and reported in the press a number of years ago, according to which any crew member, whether an American or Russian national, could be designated to be an ISS Commander. One Agency contended that if NASA considered that specific payloads would be particularly sensitive during a mission, NASA could object to the designation of a non-American ISS Commander. This matter was settled by the addition of an explicit interpretative sentence

stating that nothing in the relevant section of the Code would affect the designation by the MCOP of an individual of any Partner State to be an ISS Commander. This addition has the double advantage of the first recognition in writing at such a high level of the 'rotation' principle (i.e. a national of any Partner State) for designation of the Commander and the fact that no national of a non-Partner State can become ISS Commander.

In this connection, the discussion developed further because of the insistence of one Agency that the authority of the ISS Commander over the payloads must be put in the appropriate framework, i.e. strictly in relation with the Commander's responsibility to preserve the safety of

the crew and the ISS. The Agency in question wanted to make sure in the drafting of the Code that the authority of the ISS Commander over payloads would not extend to the right of disposal, for whatever reason, over the other Partners' elements and equipment. This could lead, admittedly in the worst-case scenario, to a situation in which the ISS Commander orders the destruction of payloads that would not be in the commercial interest of its own cooperating Agency. It was stressed strongly that such a far-fetched scenario could simply not be envisaged under the IGA, the MOUs and the Code.

Use of force on board the ISS

Two of the Partners argued strongly against any explicit reference in the Code to the possibility of the ISS Commander making some 'use of force', contending that the reference to the right of the ISS Commander to use 'reasonable and necessary means' to discharge his or her responsibilities was sufficient. One of the other

Agencies expressed a concern that not mentioning 'use of force' in the Code would preclude the use of force or physical restraint of any kind in or on the ISS in the future. After a long discussion, it was agreed that the minutes of the MCB meeting dedicated to Code approval would contain the following interpretative statement: 'In cases where necessary to ensure the immediate safety of the Crew Members of the ISS, reasonable and necessary means may include the use by the ISS Commander of proportional physical force or restraint'. It is the Cooperating Agencies' understanding that force may be used only when immediate safety is jeopardised and after exhaustion of other possibilities. It should be noted that it was not considered necessary to make any explicit reference to the possibility that any crew member other than the ISS Commander may need to use force against another.

Proprietary and export-controlled data generated in or on the ISS

Tackling the issue of 'Physical and Information Security Guidelines' in Section V of the Code, the Agencies examined the need to protect data generated by activities conducted in or on the ISS when such data could be considered to be 'proprietary' or 'export-controlled'. Because protection of the corresponding data pursuant to Article 19 of the IGA is linked to the fact that they are marked with an appropriate notice or otherwise identified, the discussion focussed on the need to mark or otherwise identify the new data as soon as they are generated through the conduct of experiments on board the ISS. Through these provisions, the Agencies have excluded data that do not require protection for reasons other than those stated above, thus leaving the astronauts with a significant amount of data – even those not generally available to persons outside the ISS programme – to be exploited without particular restriction, for example for the purpose of writing articles or books.

The Agencies agreed that it is up to the Cooperating Agencies or the data owner or provider to give instructions for the marking of data generated on board the Station, because leaving this matter to the discretion of the astronauts themselves would impose an undue burden on them. As for the duration of the protection conferred to the data by the marking, which entails an obligation to seek permission from the owner before divulging data to a third party, the point was

made that this protection was a 'continuing obligation' that would apply in certain instances even after an astronaut had ceased to be subject to the Code. Finally, because of these new rules in the Code, the Partners were for all practical purposes extending the marking obligation outlined in Article 19 of the IGA to data that were not necessarily to be exported or otherwise transferred to another Cooperating Agency. Such an extension of the original obligation, which could be justified by the 'safety of information' clause contained in paragraph 8 of Article 19, was necessary because of the presence of crew members of more than one Partner on board the ISS.

Implementation of the Code in the Partners' internal legal systems

The Agencies have been interested by the steps to be taken on a solid legal basis in order to persuade astronauts to abide by the rules outlined in the Code, albeit on a voluntary basis, as part of additional terms and conditions enabling them to pursue astronaut activities as employees of a Cooperating Agency. These steps are necessary to eliminate doubt as to the right of an Agency to require an astronaut to abide by these rules when assigned to an ISS expedition, or possibly face the prescribed sanction in case of violation of them.



A question considered by the European Partner States was whether there was a need for some government-level involvement in the finalisation of the Code because of the nature of the issues it covered, bearing in mind that the IGA stipulates that each State retains jurisdiction and control over personnel who are its nationals. They concluded that the matters

Station crew size is limited to three until the 7-man Crew Return Vehicle becomes available in about 5 years' time

dealt with in the Code were within the scope of the powers delegated by the IGA to the Cooperating Agency of the European Partner, and that ESA could therefore take the appropriate measures, including through the Agency's delegate bodies. Also, because the European astronauts are all members of the European Astronaut Corps and, as such, ESA staff members, the ESA Staff Regulations were deemed applicable in the circumstances.

A second question was whether there would be a need for some ratification-type procedure at government level in any of the European Partner States to confirm that the Code was 'accepted' by the European Partner as prescribed in Article 11 of the IGA. Finally, it



All crew members, of any nationality, are subject to the authority of the ISS Commander

was decided that explicit acceptance of the Code by the European Partner will be made in a letter addressed to the ESA Director General by the competent authorities of each European Partner State, thus enabling the Director General to confirm acceptance of the Code on behalf of the European Partners as a whole. Before writing their letter of acceptance, the government representatives, generally the legal service of the Foreign Ministry, had to check whether their internal legal system enabled their authorities to abide, albeit through ESA, by the commitment spelt out in Article 5 on the exercise of jurisdiction and control over their nationals and in Article 11.2 of the IGA to the effect that: 'Each Partner, in exercising its right to provide crew, shall ensure that its crew members observe the Code of Conduct'.

As a result of the above procedure, the Code has been implemented in Europe through a directive of the ESA Director General addressed individually to members of the European Astronaut Corps (EAC), in which they are invited to agree in writing to the terms and conditions in the Code, a process that is consistent with the ESA Staff Regulations and the decision taken in March 1998 by the ESA Council on the modalities for building up the EAC.

In the United States, the Code has become part of the US astronauts' terms and conditions of employment through the adoption on 1 October 2000 of corresponding regulations under NASA's existing legislation (14 CFR Part

1214). In Japan, the Code will be incorporated into regulations consistent with the terms of the legislation that established the National Space Development Agency (NASDA) and Japanese astronauts, as employees of NASDA, will be invited to sign up to the terms of the Code. Similarly in Russia, the cosmonauts will be invited to sign up individually to the terms of the Code once it becomes part of the regulations and policies applicable to the Russian Aviation and Space Agency (RSA). In Canada, where astronauts are appointed by decision of the Cabinet, the Code will become part of the terms and conditions of astronauts' employment in the same manner, i.e. through an Order in Council issued by the Cabinet.

Conclusion

Adoption of the Code was clearly a milestone in ISS cooperation. However, a number of issues affecting ISS astronauts remain to be addressed by the Cooperating Agencies and may test the Code's flexibility and adaptability. For example, over the next few months, the Agencies have to examine all of implications of participation in ISS cooperation by States other than the 15 Partner States. Nationals of non-Partner States may be acquiring flight opportunities from the Partners, either on the basis of cooperation between space agencies or privately, through a commercial venture. At this stage, no distinction is made in the applicable legal texts between a career astronaut hired by an ISS Cooperating Agency, and an individual flying to and from the ISS for only few days on a fare-paying basis, although the actual requirements in terms of training, proficiency and performance and long-term commitment would vary significantly. The Partners still have to examine the implications, and agree on the applicable rules and procedures for enabling nationals of non-Partner States to become ISS crew members, primarily as visiting crew, since Article 5 of the IGA prescribes that it is the Partner State that retains jurisdiction and control over personnel who are its nationals, and Article 22 of the IGA constitutes the basis for a Partner State to prosecute an 'alleged perpetrator' of a crime committed on board the ISS, but only when that person is a national of that State. Commercialisation of ISS utilisation will also bring opportunities for advertising, merchandising and sponsoring, which may raise some concerns for astronauts and their Cooperating Agencies. All of these issues need to be addressed and resolved in good time and to the satisfaction of the Cooperating Agencies and their astronauts.