

## III - FUTURE CONCERNS

Some issues discussed during the workshop were identified by the panelists as being important, though--due to technical or commercial considerations--not requiring immediate attention. Time did not allow a thorough examination of all of these issues; however, panelists identified product liability, export law, and civil procedure as deserving particular attention in the future.

## A. PRODUCT LIABILITY

Most workshop participants felt that as long as there were no "made in space" products being marketed, and as long as space station crews were small and composed predominantly of government employees, most product liability questions could be handled by a creative use of contracts. Nevertheless, some panelists felt that as space research and commerce grow, so would the likelihood that people would eventually be injured or killed: 1) on the space station by products manufactured on Earth; 2) on Earth by products manufactured on the space station; and 3) on the space station by products manufactured on the space station. They believed that with the passage of time, product liability was destined to become a more important issue. Current international space laws (1967 Outer Space Treaty and the Liability Convention) discuss damage caused by space objects in a way that applies to states and intergovernmental organizations but has little relevance for private citizens. National product liability laws, on the other hand, apply to individuals but are, as one panelist pointed out, "a real zoo," varying not only from country to country but within the regions of individual countries. For this reason, several panelists felt there would be no clear legal recourse for individuals injured or killed on the space station.

Several panelists pointed out that national laws were consistent in neither the cause of action created by product liability nor the standard of proof required for the plaintiff to move his case forward. Currently, most jurisdictions rely on actions in tort for product liability; however, a minority have abandoned or relaxed privity<sup>8</sup> rules enough to allow actions to be based on contract even though there is no direct contractual link between the parties. With respect to the standard of proof, some States adhere to

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<sup>8</sup> 'Privity' refers to the relationship between contracting parties. Actions in contract can, for the most part, only be brought by the parties to that contract.

strict liability while others rely on negligence. Some panelists felt that this might make it difficult to develop consistent rules for the space station.

In addition to conflicting national laws, the uncertain nature of space station jurisdiction and the possibility of multiple jurisdictions make the choice of law question extremely difficult for space station product liability cases. There are three multilateral instruments currently in force on product liability cases on Earth: the Hague Convention<sup>9</sup> to determine applicable "conflict of law" rules, the Council of Europe Convention<sup>10</sup>, and the European Economic Community (EEC) Directive.<sup>11</sup> Some panelists thought these instruments could offer guidance on how to resolve similar problems that might arise on the space station. For example, nations could, following the EEC Directive, enter into an agreement to modify their national laws to adopt a strict liability standard of proof for all product liability cases arising from the space station. In addition, such an agreement could also allow nations to establish a ceiling on financial settlements.

Some panelists disagreed that existing conventions offered much in the way of guidance: "To date, very little progress has been achieved in the adoption of worldwide international conventions dealing with substantive product liability law. It seems . . . quite unrealistic to hope for the early adoption of an international convention on product liability as it pertains to space stations. "

Panelists identified the choice between "fault" (where the plaintiff must prove the defendant acted with "negligence") and "strict liability" (where the plaintiff need only prove that an injury occurred and that injury was caused by the defendant's product) as being a key consideration for space station-related product liability actions. One panelist pointed out that the Liability Convention applies strict liability for damage on Earth or in the atmosphere but uses the more relaxed fault liability concept for accidents or injuries in space. Several panelists stated that this division existed because a collision between two space objects would almost necessarily involve two space powers, and the drafters of the Liability Convention believed that the space powers would be in a position to determine fault. People injured in the air or on the ground, on the other hand, would be "innocent bystanders" who would lack the technical and financial resources to make such a determination.

Some panelists thought that a similar division would be appropriate for the space station: "for products manufactured in space and sold on the Earth. . . you might apply strict liability. But, . . . on the space station, one might make the argument that all the people up there accept a higher degree of

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9 The United States is not a party to this treaty.

10 Ratified by only three members.

11 In force beginning in 1988.

risk, and therefore, if there is an equipment malfunction. . . strict liability would not apply [and the plaintiff should have to prove that the defendant was negligent] ."

Another panelist disagreed, arguing that with regard to products made in space, "there should always be a finding of fault associated with it, as both the users and the producers are liable to be very technically sophisticated and capable of making these types of proof."

Still other panelists felt that the standard of proof which applies to the space station must be a political, not a legal choice. One panelist suggested that given the current legal environment in most countries: "It is totally unrealistic to go for an international instrument based on negligence. What is more realistic. . . is an instrument based on strict liability, but with a ceiling on financial settlements. . ."

With respect to product liability, certain panelists were of the opinion that: "space was just not the issue." They argued that space legislation could contribute little: "considering the situation of product liability legislation in this country today, any recommendation you make [with respect to the space station] to Congress on product liability will probably fall all apart, and so I'm not sure that there is anything specifically that could be done for space today until the whole issue of product liability in this country is resolved. " Other panelists suggested that, in some areas, space offered no unique difficulties. One panelist noted: "A German manufacturer makes the decision whether he wants to market his product in the State of Texas, or in the State of California, or in the United States at all, and he makes that decision after he looks at the market, and he looks at his return, and he looks at the exposure he gets under the product liability law. And the same kind of analysis would go on [for space products] ."

Others thought that problems such as product liability were too big to be solved with space legislation. "Businesses [are failing] because they can't get insurance because of their product liability, and it's a serious thing that's being addressed by Congress. . .space is just a little piece of that business; right now, a very, very small piece. [It does not make sense] to recommend. . . that there be special treatment for space. . ."

Still others strongly disagreed, arguing that, in the case of product liability, if these issues were not resolved in a more satisfactory manner than they have been on Earth, this will be a disincentive to industry. Although acknowledging that this was more of a problem for manufacturing rather than research, the panelists suggested that legislating some upper limits on liability for space products would be a constructive step. It was suggested that the Price-Anderson Act--used to address the liability question in the nuclear power industry--was an interesting model. Under Price-Anderson, private firms would buy as much insurance as was available and the government would agree to cover their liability over the available insurance, up to a statutory limit.

Although acknowledging that space was only a small part of some very large legal problems, several panelists expressed the hope that space commerce

could be a "clean broom" for sweeping away many problems faced by the business community here on Earth. "I think we're at a unique point in history" offered one panelist, "We're able to not only fashion some rules under which we will live in space, but I think in doing so we also have the opportunity to fashion some changes in the rules under which we live here on Earth. Let [our legal activities] be a clean broom [that does more than] sweep some cobwebs out of space, . . ."

B, EXPORT LAW

Panelists were virtually unanimous in their identification of export law as an important concern and they regretted its omission from the OTA paper. Most felt that the subject was too complicated to be discussed in the short time available at the workshop. Many expressed the opinion that a full day could be profitably spent on this subject. Some of the aspects of this problem that were identified as requiring further discussion included:

o **Transfer of technical data between space station modules.**

Depending on how jurisdiction was allocated on the space station, transfers between national modules could be regarded as imports or exports. One panelist suggested that should technical information pass from, say, a Japanese module into a U.S. module: "it would be an import and once it's imported, if it's technical data, you have to have an export license for export to take it back out of the country." Others disagreed, arguing that most types of information passed between modules would not be technical data under International Trade in Arms Regulations (ITAR) or Commerce regulations.

o **Equipment shipped through the United States to the space station.**

One panelist pointed out that bringing goods into the United States to be launched on the shuttle does not require an import license because of a special exemption granted to NASA. This exemption would not extend to other, perhaps commercial, launch organizations.

o **Status of products made in space and delivered to foreign countries.**

Panelists identified a number of questions that could result from the shipment of "made in space" products to Earth. What would be the effect of the jurisdiction of the modules? The nationality of the producer? The fact that the product might first land in the United States on the shuttle and then be shipped to the ultimate destination?

o **Transfer of subcomponents between nations for eventual incorporation in the space station.** Under current plans, components ultimately destined for the space station will be manufactured in many countries. Several panelists felt that it was important to develop rules which allowed the easy transfer of space station components between nations.

o **Multinational research and product development.**

The multinational nature of the space station could, as one panelist pointed out, lead to a situation where a German company and American company want to cooperate to investigate some technology, but, under U.S. law, the German company would not know if it could buy the product until after it was

developed. Since the product does not exist now, there would be no regulation in the Commerce Department, the Department of Defense, or in the State Department that could be consulted, and these agencies would refuse to give an opinion letter in advance.

**C. CIVIL PROCEDURE**

In arguing against attempts to solve legal problems in advance, one panelist observed that the only penalty for not developing appropriate laws was conflict. Since the function of courts is to resolve conflict, the panelist felt that all that were required were appropriate procedures to grant courts the power they would need to conduct the case.

Other panelists noted that some State procedural laws would already apply to space station conflicts. For example, using the "Long Arm" statute of Texas, one could obtain jurisdiction over a person by service of process on the Secretary of State of Texas if that person has made a phone call or sent a letter or a telex into Texas.<sup>12</sup> Arguably, under Texas law, merely controlling the space station from the Johnson Space Center exposes all participants to Texas jurisdiction. This led some panelists to express the opinion that unless such State laws were restrained, they would have a disruptive effect on space station operations.

Pondering the inherent difficulties of conducting pretrial investigations (discovery, depositions, interrogatories, etc.) concerning space station activities, one panelist queried "How do I get discovery? How can I take testimony?" The panelist suggested that lawyers will need to examine records ("conduct discovery") that exist only on the space station, or to obtain testimony from individuals on the space station without bringing them down to Earth. If so, then new rules of civil procedure may be necessary which will supply the legal means to force parties residing in space to comply with specific court orders. If private lawyers are to bring lawsuits, then certain procedural mechanisms must be put in place. Several panelists suggested that this could be best accomplished by amendments to the Federal Rules of Civil Procedure and the Rules of Evidence.

However, one panelist warned that amending U.S. Federal Rules of Civil Procedure could run afoul of the Hague Conventions on the service of process and the taking of evidence abroad. These conventions declare that certain evidentiary procedures are the prerogative of the state. Therefore, foreign countries can forbid the sending of interrogatories or attempts to take depositions by the nationals of other states. The Hague Conventions could be seen as barring the taking of discovery on certain aspects of space station activities if part of the station was under the jurisdiction and control of another country. Arguably, if Congress passed new amendments to the rules of

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<sup>12</sup> The U.S. Constitution requires that a person receive proper notice ('service of process') of judicial proceedings that affect his or her person or property.

civil procedure, under the "Later in Time Rule," these would override the treaties in the United States. However, in the absence of multinational agreements, such laws would not be respected in other countries.

Some panelists felt that procedural questions were not really a problem since everyone would have to come back through the United States on the shuttle. Once in the United States, they would be subject to discovery and service of process. Others suggested that such thinking was exactly what most troubled our space station partners. The idea that foreign space station participants might have to run a gauntlet of U.S. laws every time they landed on the shuttle was viewed as diminishing the possibility of successful international cooperation.