

## On Cosmic Law: 'An Earthly Start'

By Joshua Lederberg

COSMIC LAW got its earthly start last week with a draft treaty to regulate the exploration of space. As a manifesto of humanity's aspirations to walk beyond the bars of our earthly prison, it is a grave disappointment, full of compromise, obscurity and diplomatic maneuver. However, the health of our planet is so precarious that any agreement whatsoever is a constructive symptom, and perhaps we should not risk too vehement complaint.

The treaty is vague enough that it may lead to serious confusion, and might later be used as a propaganda club against us. It would be futile to suggest reopening negotiations on the text. However, the U.N. Assembly and Senate ratification hearings are still places for clarifying interpretations by space scientists and jurists, as well as national authorities.

OF THE 17 articles of the treaty, the most gratifying are the first three, which forbid any "national appropriation by claim of sovereignty," and dedicate "outer space, including the moon and other celestial bodies" to "free exploration and use by all states . . . in accordance with international law." But what is that law for outer space? The law of the high seas and the Antarctic treaty?

The second major principle of the treaty is that astronauts are regarded as "envoys of mankind" and deserve every facility for safe return if stranded anywhere. Does the phrase imply any supra-national obligation of the astronaut? What if he is involved in surveillance or the development of intelligence techniques? Is this consistent with his being an envoy of mankind entitled to a safe return? We already have a substantial investment in military astronautics (the manned orbital laboratory). The only perceptible payoff from this is for surveillance, and we should clarify how this commitment is to be reconciled with the treaty.

The treaty binds earthly parties to strictly peaceful uses of the moon and planets. Military bases, weapons-testing, and maneuvers are forbidden, but not very well defined. Would a military communications relay station on the moon be legitimate? What is a weapon?

The treaty specifically authorizes any facility necessary for peaceful exploration: does this exception override the other bans? Is surveillance of the earth's surface a peaceful purpose? Historically, the U.S. and the U.S.S.R. have taken contrary positions on this subject—our airplane overflights to detect missile activity in the U.S.S.R., Cuba and China have been perceived very differently by us and by our targets.

The parties "undertake not to place in orbit around the earth any objects carrying nuclear weapons." The military utility of the orbital bomb has never been very clear, since a direct sub-orbital launch delivers a payload without the extra costs of orbital acceleration and re-entry. When we move from the single bomb to a large-scale system—say tens of thousands of weapons accumulated in orbit—new patterns of annihilation may emerge: the saturation of an antimissile defense, or an inexorable Doomsday Machine to make the whole earth uninhabitable if a major power is mortally attacked.

UNLIKE THE planetary bases, spacecraft are not designated for any inspection, and what a tricky question this is. Would we enjoy any deviation of a COMSAT television relay station while the satellite was being inspected? What are the tolerable limits of interference? In fact, the treaty rigidifies national property rights in spacecraft so as to make this a more delicate question than ever.

The U.S. has hitherto been deeply concerned about inspection as a feature of arms-control agreements. It is rather astonishing therefore to see an agreement where this has been totally sidestepped. Having no inside information, I could only infer that our military advisers saw no utility whatsoever in the orbital bomb, or else knew other sources of the necessary intelligence. Nevertheless, why forego such a good chance to invigorate self-inspection: the rule of law in each country that treaty violations are to be reported to the U.N. We can still legitimize such a policy, which is consistent with the theoretical constitutional supremacy of treaties in the organic law of the nation. We need merely to publish the procedures whereby U.S. nationals will be protected in their obligation (over-riding security classification?) to report evidence of violation, openly offer asylum to nationals of other countries who do likewise, and ask other nations to make similar unilateral commitments. Our nations now rarely encourage their citizens to think, above all, of their obligations as human beings.