

THE NEED FOR A GOVERNMENT FOR MARS PRIOR TO HUMAN EXPLORATION

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A proposal is made for establishing a Government for Mars prior to the arrival of humans on the planet. Reasons why this is desirable and what the government's function would be, with particular reference to property rights, are explored. A method for establishing such a government is presented, along with recommendations on how to staff and fund the Government for Mars. Finally a plan for the evolution of the Government for Mars into a Government of Mars is presented considering likely outcomes of a colonization of the planet.

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I. THE HISTORICAL CONTEXT

A. Earth's Post-Colonial Governments

In the history of the world the fate of nations created from colonies has been a sad one indeed. Almost without exception post-colonial governments have been corrupt, inept, and dominated by a single party, usually under the control of a single family descended from the leadership at the time of liberation from colonial rule. This history spans the civilizations of the world through time and geography. Post-colonial governments around the world from the Pacific Islands, to South East Asia, the Indian subcontinent, the Middle East, many created out of the dissolution of the Soviet Union, of Africa, the Caribbean, and Central and South America behaved badly, often for years, after independence. A few "good government" exceptions are the English-speaking colonies that became Canada, The United States, Australia, and New Zealand along with a handful of freed former Soviet captive states that had a national identity predating the Soviet Union and had succeeded in preserving much of that identity even through 75 years of Soviet rule.

The creation of independent nations has also been one of conflict and open warfare. Frequently the transfer of power from the colonial masters to the new nation has proceeded peacefully, only to be followed by civil war. This is particularly true where the colonial masters favored one group over another. After independence the less favored group(s) would use the opportunity to make a grab for what they considered rightfully theirs. Even within the good government exceptions mentioned above war and civil war could not always be avoided. It was necessary for the thirteen American colonies to acquire independence through a war against, what was at the time, the world super power. Though sharing many things in common the cultural and economic differences of these thirteen colonies eventually resulted in a devastating Civil War. It is possible the independence of other of the "good government" countries mentioned, e.g., Australia, was achieved peacefully only because it was sought from a spent

Great Britain, which was no longer a major power, incapable, and unwilling to put up a fight. In the case of the former Soviet states, for example, Estonia, and the Czech Republic, independence was achieved only after a long and expensive proxy war – The Cold War.

The Czech Republic is illustrative of another common failure of colonial governments that can severely strain post-colonial governments – namely the “unnatural” combining of ethnic or religious groups under one government. After independence from the Soviet Union, Czechoslovakia rapidly split into two separate countries. India provides another example.

B. Mar’s Future

We can expect that the settlement of Mars will proceed from the creation of one or more bases initially established for scientific research, then expanded into colonies driven by a process, not unlike the establishment of many European colonies, based more on national prestige than a realistic assessment of economic return. Indeed, it is more likely that national, personal, or corporate image making will be the driving force behind much of the initial effort to settle Mars than any expectation of or desire to make a profit. It is not unlikely that a herd mentality driven investment bubble, not unlike what has recently occurred with the Internet, may result in massive investment in Mars related ventures.

In time, after Martians achieve some measure of self-sufficiency, they will also begin to seek political independence from their colonial masters, whether their sponsor is a national government, Non-Governmental Organization (NGO), wealthy individual, or corporation. It is hard to imagine any scenario where full-scale war waged by a Martian independence movement against Earth-based powers favors the Martians. However, mere threats of sabotage or other acts of terror will probably suffice to establish negotiations leading to independence. It is to be hoped that each and every Martian colony that seeks independence can do so through strictly peaceful means. How to guarantee it?

Regardless of the means by which each colony achieves independence, the goal is to begin independence with a competent government, promoting the rule of law, not of men, that protects human rights including, and especially, property rights. The problem then is how do we, The Mars Society, and others interested in settling the red planet ensure this result?

II. A GOVERNMENT FOR MARS

A. What is it?

A Government for Mars (GFM) would be a government, established prior to the arrival of any humans on the planet, chartered to govern various aspects of human exploration, base establishment, colony creation, and resource usage. It would provide a planet-wide common law for such issues as land and mineral claims, criminal proceedings, search and rescue, usage of radio spectrum, regulation of orbits, protection of historical sites, intellectual property, building codes, and protection of the environment to name a few. This GFM would continue to operate throughout the preself-sufficiency period, serving as nursemaid to an eventual Government of

Mars (GOM) that would succeed it when the Martians achieve a level of economic self-sufficiency such that a human civilization could continue on Mars with minimal continuing assistance from Earth.

The GFM would therefore be initially staffed with people all from Earth. It would be Earth based, and be highly dependent upon assistance from friendly Earth governments for support, particularly in enforcing its laws and regulations. It would primarily be a mechanism for rationally opening Mars to human settlement, by interfacing with Earth nations, corporations, NGOs and individuals and providing a mediator for competing interests and claims.

It must not be open to manipulation by any special interest. Its structure should ensure that only individuals primarily concerned with the welfare of Mars and the Martians staff it.

B. Reasons for Creation

Assuming there exists today, both a reasonable expectation that humans will soon arrive on Mars and a body of people with an affinity for Mars and a desire to see the planet settled – what we might call Martian citizens in absentia – then the creation of a Government for Mars is not unreasonable. As Declan J. O’Donnell has written, “God forbid we have a habitable Mars and no consensus on the rules for living and working in space. This tedious task needs to begin as soon as possible under the auspices of the Mars government.”

1. Preparing the Way

The failure of many post-colonial governments to ensure a pluralistic society, governed by the rule of law and supportive of human rights and their tendency to remain the purview of a relatively small, often hereditary, elite can be traced to the failure of the colonial governments to prepare the way for independence. Frequently the native peoples were prevented from acquiring the highest levels of education, and were excluded from all positions of true authority and responsibility within the colonial government.

It is extremely unlikely that Martians will be illiterate or uneducated, however, there may be a dearth of talent with the skills necessary to run a modern government, and no tradition of democratic political process.

It is the role of the GFM to ensure that Martians planet-wide are brought into the political process and involved at all levels with the functions of government; that the voices of Martians are heard by those making decisions regarding their lives and the future of Mars. In this way the GFM will naturally evolve into a GOM when conditions are right for independence.

2. Heading off National Claims

If we look to Antarctica as a governmental analog for Mars we see that settlement and development of the Southern continent has been held up by the need to resolve long-standing competing claims to all or part of the continent by various nations.

The Antarctic Treaty, by virtue of its association with major world powers, has permitted scientific exploration of the continent, but fails to resolve the outstanding national claims. An ancillary agreement currently provides for a 50-year moratorium on mining. As a model for a GFM it is inadequate.

By creating, a priori the establishment of any bases on Mars, an internationally agreed to body governing the exploration and settlement of Mars, whose primary goal is the creation of an independent nation of Mars, a GFM, can prevent the planet from falling into the Antarctic trap of exploration without development or settlement. A GFM therefore can provide a check on all national claims of sovereignty over any portion of Mars. It would not prevent the exercise of some national sovereignty over a nation's base or colony, but the exercise of such sovereignty would be subject to the overarching authority of the GFM.

By providing competent, open, market oriented, and internationally recognized administrative and legal authority, the GFM would do what all good governments do – reduce the risk to investors of investing in a nation.

3. Promote the Settlement of Mars

The GFM, through its interactions with other governments and the media would promote Mars as a place for entrepreneurial activity and human settlement. In a sense the function would be one of marketing Mars. One possibility would be to fund and sponsor a series of Mars Exploration Prizes akin to those described by Robert Zubrin.

More broadly, this function is enhanced by promoting standards, e.g., communications, docking port design, habitat atmosphere, etc. that simplifies coordinated effort.

4. Register Claims and Grant Settlement Charters

Related to item 2 is the essential function of operating a claims office to record all claims to land. These would include ownership, but also exploration, mineral and water, mining and drilling rights. Related to this is the function of granting exploration permits and settlement permits to those wishing to establish a base or colony. By registering all claims, and vetting all requests for bases and colonies the GFM should be able to resolve competing claims for the same territory or resources.

Another area of responsibility would be the adjudication of salvage claims. The GFM should have the authority to declare certain abandoned or lost property “of historical import” and therefore not available for salvage. A GFM court should be established to resolve competing claims for salvaged property.

5. Ensuring the Common Good

An important role of a GFM would be the creation of regulatory bodies for setting standards. Initially the charter would be for the GFM to set standards that increase safety. Issues that might be addressed are:

- habitat and rover atmospheric composition and pressure,
- Docking port compatibility,
- Power standards, e.g., voltage, plug and connector design,
- Radio spectrum usage,
- Rover fuel types and fueling systems,
- Forward and back contamination standards,
- Required vaccinations, and
- Pest control and quarantine procedures

At a later point, the charter would be extended to govern such things as:

- Building standards,
- Food safety,
- Healthcare standards,
- Education standards,
- Weights and measures,
- Air traffic control

6. Protect Human Rights

Again, while citizens of a colony will probably be ruled by the laws of the colony's sponsoring entity, the GFM should be charged with enforcing a bill of human rights that applies to every person on Mars. Any person on Mars should have the right to petition the GFM for a hearing if they feel their rights are being abused, and the GFM court of inquiry should have the power to grant asylum to any such petitioner and their family providing some other colony is willing to take them or, failing that, provide them with transport back to Earth if desired. One mechanism that might be used by a GFM to enforce this would be the requirement that any government, or organization establishing a base or colony on Mars post a bond for each individual they send to Mars. This bond would be purchased from the GFM and forfeit for failure to abide by the asylum law. The amount of the bond should cover a significant portion of the cost of transport back to Earth.

Special Martian conditions may require some space-specific rights such as these defined by Peter Kokh:

- An individual's right to remain within a biosphere,
- An individual's right to be homeless within a biosphere's common spaces,
- An individual's right to basic life-sustaining utilities

7. Regulate Intercolony Commerce

While the laws of the colony's sponsoring entity would probably rule commercial interactions within a colony, the GFM would create the laws governing intercolony trade and contracts. The GFM would be able to "black list" a colony that fails to abide by the laws of the GFM. Other colonies would not be allowed to trade with and/or render assistance to any colony so black listed.

8. Protect the Martian Environment

A reasonable function of an GFM would be to ensure that the truly unique places (and possible life forms) on Mars remain unspoiled and available for the study and enjoyment of as many as possible for as long as possible considering the needs of Martians.

III. HOW TO START A GOVERNMENT FOR MARS

One of the fundamental problems facing future settlers of the Martian frontier is acquiring title to the land they settle. Of even more fundamental concern is how to get to Mars.

Getting to Mars and living there are technological problems of the class expensive, complicated and possible in the near term. Certain that the talent and interest exist to solve these problems, but realizing that the attribute, expensive, is holding things up, Dr. Robert Zubrin proposed that the United States government offer what he termed the Mars Prize which was divided into 12 challenge prizes. The government would pay these prizes, ranging in value from \$500 million to \$20 billion, to any person, group, or organization that could win them. The prizes escalated in complexity culminating in a round trip human mission to Mars.

The proposal I am making provides an alternative methodology to taxpayer funding of the prizes. It also does more, in that it begins with the creation of a Government for Mars. I feel that it is important that people view Mars as a place for human settlement, rather than just a scientific curiosity the way Antarctica is viewed. I also feel that it is very important that Mars be seriously considered as a home for a branch of human civilization as soon as possible, even prior to the arrival of the first humans. One way to promote this attitude is by the establishing a basic government, recognized by the major world governments, with an attractive constitution, capable of registering land claims, and, to a large degree, financially independent.

Some might feel that it is premature to create a government for an unpopulated world, however, I believe that there exists today a Martian constituency, much as there existed, in early nineteenth century America a constituency of emancipated slaves who were seeking to establish a homeland in Africa. A GFM should permit non-Mars residents to become citizens of Mars, while maintaining citizenship with any Earth nation that recognizes the Martian government.

The process by which a Martian government would be created could unfold as follows:

1. The Mars Society should either modify its by-laws, or help create an entity similar to The American Society for colonizing the free people of color of the United States (The ACS). This entity, created in 1816, was dedicated to the purpose of colonizing the free people of color as an alternative to emancipation in the United States. The efforts of this society eventually led to the creation of several settlements in Africa that later became the country of Liberia. The Constitution of The ACS could serve as a model.

The ACS and its spawned or affiliated societies eventually garnered financial support from some of the States and the assistance in various forms from the United States Federal government and was able to establish by the 1840s a number of colonies in Africa. The ACS created the country of Liberia via the Constitution of the Commonwealth of Liberia. Eventually these colonies became a financial burden to The ACS and faced political threats, chiefly by Britain, because of their not being colonies of any sponsoring government, nor an independent nation. At The ACS's urging they declared their independence (26 July 1847).

The Mars Society should adopt an article to its bylaws calling for the creation of a Government For Mars and the seeking of international recognition for it. While the Mars Society may someday sponsor its own colonization effort, how much better for all Martian settlements if they occur under the umbrella of an independent Martian Government. Only in this way can the risks and political uncertainty that faced The ACS colonies be avoided by Martian colonies.

The Mars Society would oversee the writing of an initial Constitution for the GFM.

2. Member states of the UN approve a treaty ceding all their rights to Mars to a created Martian government. Note that part of this step has been accomplished via the UN "Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies" of 1967 (more commonly known as the "Outer Space Treaty".) While the Outer Space Treaty results in all ratifying governments relinquishing their claims to Mars, it does not transfer to or, endow any other entity with any rights over Mars. The Outer Space Treaty precludes national claims, but I believe the UN, as a supranational entity may claim the right to transfer title to a newly created Martian government of an uninhabited Mars. I believe that this could be an act entirely of the UN, accomplished by a vote within the UN, and does not require national governments to ratify a treaty. If done this way the UN could immediately recognize the new government and grant it a seat in the UN. Article 78 of the United Nations Charter offers the possibility of the GFM avoiding a trusteeship situation if it becomes a full UN member. It would then be up to the GFM to seek international recognition on a state by state basis. Creation via a UN treaty, on the other hand, has the benefit of resulting in de facto recognition of the new government by any national government that ratifies the treaty. The problem with this later route is that without UN membership the GFM may have to go through a trusteeship phase.
3. The GFM takes responsibility for Mars. The UN must remain a midwife and not a parent to the GFM. The UN may provide the office space, equipment, and bureaucratic infrastructure and staff many of the government positions. This may be both a political reality and a political and economic necessity, but, based upon the record of the UN, it is not desirable. It is essential that the act by which the GFM is created state that every effort must be made to recruit members of the Martian constituency from outside the UN to staff and operate the GFM. An essential requirement is that anyone holding an official position within the GFM becomes a Martian citizen. The act should also set a timetable by which UN involvement in the GFM ends.

4. The GFM creates a Martian central bank, which funds the Mars exploration prizes and its own administrative activities by issuing, in varying denominations, 13 billion units of a Martian currency. For convenience we will refer to the basic unit of this currency as the Zubrin land dollar or land-zollar. This currency is an asset backed currency similar to the Silver Certificates issued by the United States of America up until 1957. The asset backing it is the land of Mars (and any hard currency collected from the auction). Anyone who travels to Mars and physically stakes out a claim may register that claim and take title to the land by returning to the Martian government 1 land-zollar for each hectare claimed. Some upper limit on what any one individual may claim is probably desirable.

In actuality the Martian Central Bank would operate as a currency board. In addition to the land-zollar, it could issue a standard zollar without the convertibility to Martian land feature but with a fixed exchange rate to a foreign currency. An analogy would be the Bermudian dollar which is fixed at a 1 for 1 exchange rate with the U.S. dollar but which has a currency space limited to the island of Bermuda.

A country with a currency board retains the privilege of issuing a money of its own, to function for all the usual purposes inside the territorial frontiers of the state. The supply of local money is strictly tied to the reserve holdings of a designated foreign currency.

The essence of a currency board is a clear and publicly observable monetary rule, usually backed by a legislative mandate. The rule normally combines three features: (1) a fixed exchange rate against an anchor currency, (2) unrestricted convertibility into that currency, and (3) full foreign currency backing for any increase in the liabilities of the central monetary authority.

In order to set an initial exchange rate for the land-zollar, some portion of the 13 billion land-zollars would be offered via a Dutch auction as a way of pricing the initial public offering of the land-zollar. Under a Dutch auction potential investors set the price of a land-zollar by placing their bids for the number of land-zollars they want at the price they are willing to pay. When the bidding ends, the Martian government tabulates the bids and re-offers the land-zollar to the bidders at the highest price at which all the offered land-zollars are spoken for. The initial capital raised would be used to offer the prizes and cover administrative costs. The nonland-zollar currencies collected in exchange for the issued land-zollars would be held by the Martian central bank, which would invest them according to rules established by the GFM. The principal and any interest would be available to redeem land-zollars, fund the prizes and finance the operation of the GFM.

There are approximately 14.4 billion hectares of land on Mars, so we see that the Martian central bank is essentially reserving 10 percent of Mars from being claimed. It would be the responsibility of the GFM to identify which 1.4 billion hectares of Mars are to be reserved as preservation areas, and establish laws governing access and use of these “national parks”. I would hope that this set aside of land is a requirement of the Martian constitution.

5. Once on a sound financial footing, elections should be held.

6. The GFM would then begin to grow to meet its growing responsibilities.

Besides administering the Mars Prizes, the GFM would primarily be tasked with:

- Refining the form of Martian Government,
- Finding sources of revenue to support its operations,
- Promoting Mars for human settlement,
- Providing assistance and coordination between groups attempting to establish Martian settlements, and
- Resolving disputes between groups involved in Martian exploration and settlement

7. At some point in the future, the Martian government transfers its seat of government to Mars. When economic self-sufficiency is achieved it then adopts changes to its Constitution, e.g., Martian residency or birth requirements for voting in elections and/or holding high office in the government and becomes a Government Of Mars.

IV. SOME MODELS FOR AN INITIAL GFM

In this section I will review two models for a Government For Mars. One, SMOM, is a long existing institution that proves that an institution like the GFM can be created and achieve international recognition. The other, the International Space Station Authority, is a proposal for an international organization to manage the ISS and represents a space related incremental step towards a full-fledged GFM.

A. SMOM

SMOM is the abbreviation of the Sovereign Military Hospitaller Order of St. John of Jerusalem of Rhodes and of Malta. SMOM has been described as a country without territory or citizens. Its origins date back to around 1050 when merchants from the Marine Republic of Amalfi built a church, convent and hospital in Jerusalem. The object was the care of pilgrims, of any creed or race, traveling to the holy land. A monastic order, The Order of St. John, which ran the hospital, became an independent Order. In 1113 Pope Paschal II issued a Bull that placed the hospital under the aegis of the Holy See and granted it the right to freely elect its leaders without any interference by other secular or religious authorities. Thus the Order became exempt from the Catholic Church.

During the crusades the Order was forced to come to the military defense of the sick, the pilgrims, and the territories taken from the Muslims. At this point the Order was both a religious and military organization. From its origins the Order was massively endowed by the Western European powers and developed an international structure to manage these gift properties for the benefit of its work in the East.

With the defeat of the crusaders the Order took up residence first in Cyprus and then, in 1310, on the island of Rhodes. At Rhodes the Order built an impressive naval force that saw action in many battles against the enemies of Christendom. It was the combination of

independence acquired by the action of Pope Paschel II, and the right recognized by all Christian nations, of the Order to maintain armed forces, that was the base upon which SMOM's international sovereignty was founded. During this period the Order had sovereign control of Rhodes and its Prince was the Grand Master of the Order. The Order minted its own money, and maintained diplomatic relationships with other nations.

In 1523 the Order was forced to leave Rhodes after a defeat by the forces of Soliman the Magnificent. They remained without a territory until 1530 when Emperor Charles V, with the approval of Pope Clement VII, gave the Order the island of Malta. The gift was dependent upon the Order agreeing to remain neutral in any war between Christian nations. It was this restriction that led, in 1798 to the Order being forced from Malta by the forces of Napoleon Bonaparte. Though the British later took control, they never permitted the return of the Order.

The Order then moved, in its nationless state, from Messina, to Catania and Ferrara, until in 1834 it settled in Rome where it owns the Palace of Malta in Via dei Condotti 68 – where the Grand Master resides and Government Bodies meet - and the Villa Malta on the Aventine – which hosts the Grand Priory of Rome, the Embassy of the Order to the Holy See and the Embassy of the Order to the Italian Republic. Both buildings have extraterritoriality status. Today the Order is one of the largest land owners in Italy and its properties are exempted from some Italian law. Mostly since its extraction from Malta, but especially since its move to Rome the Order has abandoned all military activities and concentrates entirely on its hospital mission, sending aid missions to places in need around the world and operating many hospitals and clinics.

It is the current status of SMOM that is most interesting as both a model for a Government For Mars and example of an internationally recognized government without citizens. SMOM has all the trappings of a modern nation state, except for controlling any significant land area, or having any citizens. Its 12,000 Knights of the Order remain citizens of other nations, essentially possessing dual citizenship, however, belonging to the Order is always referred to as a membership not a citizenship. The Knights are organized into six Grand Priories, three Sub Priories and 45 National Associations of Knights. The operations of some of the more active National Associations involve tens of thousands of volunteers.

Its Constitutional Charter and the Code, reformed in 1997, define the Government of SMOM. This organization is tripartite and essentially federal in form with the National Associations enjoying a high degree of independence:

- Executive power resides with the Sovereign Council, chaired by the Grand Master and composed of 10 Knights elected by the Chapter General. A Government Council advises the Sovereign Council on political, religious, medical and international issues.
- Legislative power rests with the Chapter General (the assembly of Knights' representatives that meets once every 5 years), representing the Supreme Assembly of Knights for constitutional rules, and to the Grand Master and Sovereign Council for non-constitutional matters. A Board of Auditors – elected by the Chapter General – performs auditing functions.

- Judicial power is exercised by the Magistral Courts of First Instance and of Appeal, composed of judges appointed by the Grand Master and the Sovereign Council from Order members of legal expertise.

The Grand Master is elected for life from the Professed Knights by the Council Complete of State. He takes the title of Most Eminent Highness. Those nations with which SMOM has diplomatic relations recognize the Grand Master as the Supreme Head of the Order, with the prerogatives, immunities, privileges and honors reserved for Heads of State. The Grand Master issues the legislative provisions not covered by the Constitutional Charter, promulgates government acts, manages Common Treasure assets, informs the Holy See of the Order's needs, ratifies, prior to the resolutive vote of the Sovereign Council, international agreements and issues notices summoning the Chapter General.

Financially, the operations of the SMOM are funded in different ways in different countries. SMOM has agreements to operate some healthcare facilities and provide emergency services with national health systems. Operations in developing countries are often supported by grants from governments or international organizations. Membership dues, and donations account for the majority of the remainder, however, the minting of coins and issuing of stamps generates some revenue from the numismatic and philatelic markets. The SMOM's finances are managed by The Receiver of the Common Treasure who is also the Minister of Treasure, Finance and Budget. He oversees the administration of the Order's assets, in agreement with the Grand Chancellor, under the authority of the Grand Master and the supervision of the Board of Auditors. He draws up the annual budget and financial statements relevant to the economic/financial position of the Order and submits them to the Board of Auditors and for the Grand Master's approval, after prior approval of the Sovereign Council. He also submits to the Grand Master for approval, and then for the approval of the Sovereign Council, the acceptance of bequests and donations, the sale of Order assets and the consequent re-investments. He directs and supervises the Office of Magistral Post and, through the Secretary General, all internal services of magistral houses and in particular the staff administration of the Grand Magistry, the Engineering Office and the surveillance of the Magistral Palace and of other property.

SMOM has its own rules called Order Laws and its own independent courts. It has bilateral diplomatic relationships with 90 countries (see Appendix B for a current list as of July, 2001) with representatives to major European countries and international organizations. It is one of the entities and Intergovernmental Organizations having received a standing invitation to participate as observers in the sessions and the work of the General Assembly and maintaining permanent offices at UN Headquarters. That is, they have permanent observer status like such other groups as Palestine, the International Seabed Authority and the International Committee of the Red Cross. Today the Order issues passports and stamps, mints coins, and creates Order public bodies of independent legal status.

Today, the order maintains a strictly neutral, impartial and non-political stance in international affairs. This gives it great freedom to carry out its mission and step in as a mediator when requested.

Is it impossible to imagine The Mars Society, as a GFM, functioning more like the SMOM? Organizationally are we that different? While our missions differ – delivering health care versus settling Mars – they both require international cooperation and make no demand on the territoriality or independence of any existing nation. In this important fact we are the same – our memberships share a common mission and are drawn from around the world. In this we differ – SMOM once governed a land of its own and now has none; a GFM now governs no land, but someday will.

B. International Space Station Authority

The International Space Station Authority (ISSA) is a project of the International Space Station Congress (ISSC) that, as of August 2001, consisted of the Foundation for the International Non-governmental Development of Space (FINDS), the Space Studies Institute (SSI), and the Space Frontier Foundation. The ISSC has been set up to encourage and facilitate discussion about how the International Space Station (ISS) is to be managed after its construction is complete. In order to facilitate this discussion the ISSC has created a “straw man” proposal, the International Space Station Authority.

It is their belief that the challenge presented by the ISS requires creating an international, quasi-governmental "authority." This new organization would manage the operations of the ISS on behalf of all the governments that have contributed to its development.

There are many similarities between the ISS and the early exploration and settlement of Mars. Both involve an extraterrestrial piece of real estate of interest to multiple governments, corporations, and individuals, this latter group consisting not just of scientists, but also, in the case of the ISS, of tourists. Both involve massive public and private investment in a high-risk venture. Both are high visibility ventures, involving high-risk opportunities with the potential either boost or destroy prestige. Both are areas where competing claims can cause conflict so severe as to cause an end to the enterprise. Both represent areas where scientific and commercial interests may be in conflict. They differ in that the ISS, like Antarctica, is subject to a number of existing national claims, while Mars remains unclaimed.

We have seen how the Antarctic Treaty has prevented commercial operations from occurring, it is hoped that the ISSA will provide a better model for an international agreement – one that balances the interests of governments, scientists, and commercial enterprises, and that it will be a valuable model for opening up the Martian frontier.

Indeed the ISSC gives many reasons for creating the ISSA that are also valid reasons for creating a GFM. To paraphrase from their position paper - creation of the ISSA will provide stability and predictability faster and more comprehensively than waiting for a solution to evolve from today's chaos. Creation of the ISSA is politically possible and by starting it now, it will be possible to avoid a situation where only government-conducted ISS operations will be possible making it difficult for market-based activity to begin. It is a better and cheaper way to manage the resources and operation of the ISS and will permit the partner governments to focus on R and D projects further out on the space frontier. It would permit economies of scale and be motivated to purchase needed products and services in a manner that gets the most value. And it

would isolate the ISS from the day-to-day political concerns in the countries involved. To quote from the ISSC's FAQ:

The goals of the ISSA are:

- Ensure safety in and around the ISS for all participants in ISS-related activities.
- Enforce the rule of law in and around the ISS, as per international agreements.
- Promote the greatest possible productive use of the ISS and its environment to benefit the citizens of partner nations, and all humanity.
- To achieve efficiency in ISS operations, foster a free and competitive marketplace for ISS-related goods and services.
- Promote and facilitate the improvement and expansion of the International Space Station and its capabilities.
- To promote peaceful cooperation among all humankind.
- To start the process of insuring the long-term survival of our species.

The ISSC has chosen not to produce a detailed document describing the ISSA. The intent is to produce an Authority similar to other quasi-governmental "infrastructure authority" which are granted limited government-like powers to administer transportation-related or scientific infrastructure systems. They give as examples:

- The Port Authority of New York and New Jersey, which oversees airports, bus transit, and shipping.
- CERN, the European nuclear physics research organization.
- The Great Barrier Reef Marine Park Authority in Queensland, Australia.

A similar authority, an International Mars Authority, IMA, might provide the necessary, and politically feasible, first step towards the creation of a GFM. All people interested in how the exploration and settlement of Mars will proceed should pay careful attention to how the issue of managing the ISS plays out. It seems inevitable that whatever mechanism evolves for the ISS will be looked to as a model for Mars. I submit that the proposed ISSA, short of the full-scale GFM I have proposed, represents the best alternative available, and superior to existing outer space treaty, the Antarctic treaty, or the International Seabed Authority, as a mechanism for balancing competing interests and protecting the rights of scientist and settlers on the Martian frontier; and provides a mechanism for the peaceful evolution to an independent Mars.

V. CONCLUSION

Many people decry the American "Wild West" and the "Frontier Mentality", but we ignore how much worse things could have been, had not the United States and Canadian governments provided a framework in which to explore the western regions and incorporate

them into the nation. How much easier it must have been for those leaving their homes to settle the west knowing that where they were going would someday be a part of a greater whole. That familiar rule of law and political systems would eventually follow. That their rights as Canadians or Americans would be preserved. Similar expectations should go with Martian settlers to. The creation of good government is a difficult task requiring much time and effort. We must begin soon before Mars is Balkanized. We must begin today!

APPENDIX A – THE GOVERNMENT FOR MARS FAQ

Q: How can you call this a FAQ?

A: It is true that this is a relatively new idea and very few questions have been asked about it, certainly none of them frequently. In my defense I will just say that it is a useful didactic mechanism for expanding upon the concept.

Q: Could the Martian government sign the Outer Space Treaty?

A: Note that from the standpoint of Mars, Mars is not part of outer space, so that the GFM or GOM could ratify the Outer Space Treaty and not be in violation with respect to its own or its citizen's claims to Mars.

Q: Is it necessary for a country to sign the Outer Space Treaty to vote for the creation of a Martian government?

A: Unless the act or treaty creating the GFM specifically mentions that signers relinquish all claims to Mars then I believe the answer is Yes. Otherwise a voting/ratifying nation may later declare a claim to Martian territory. At this time all the major countries of the world from the standpoint of population, e.g., China, India, Russia, the United States; and from the standpoint of being either an economic power or spacefaring nation have ratified, or signed the Outer Space Treaty. This does not constitute a sufficient number to have a majority to pass a UN resolution. So for an act of the UN to pass with a guarantee of sovereignty of the Martian government the act would have to include wording specifically relinquishing all claims to Mars. The same would apply to the treaty route, however, a treaty is binding on a ratifying nation regardless of how many other states ratify it.

Q: What is a hectare?

A: A hectare is a standard (for most of the world beyond the borders of the United States) for measuring land area. The conversion is 1 hectare = 10,000 square meters = 2.471 acres.

Q: Would the Government for Mars be a true government?

A: The plan requires this to be the case. The Martian government would be able to pass laws, operate courts, levy taxes, issue currency, issue postage, enter into treaties, set up embassies, operate a patent and trademark office and establish a self-defense force, and do any of the other things usually reserved for sovereign governments including becoming corrupt, bureaucratic and inefficient. Operating a welfare state is not likely to be a pressing requirement.

Q: Will the interest earned on the money received from selling zollars actually be sufficient to operate the government?

A: One would expect that the Martian government, without a population to tax, would become one of the most efficient governments in the solar system! Whether or not the interest earned (tax free, I might add) will be sufficient is dependent on a number of factors, e.g., the amount of revenue generated from selling zollars, how the money is invested, and the size of the Martian government. The South African government generates a significant portion of its revenue by selling gold versions of its currency. The island nation of Grenada generates revenue by issuing stamps for the philatelic market. We would expect the Martian government would be

creative in finding sources of revenue and diligent in charging fees adequate to cover the costs for any services it renders, e.g. issuing a trademark. Most likely positions in the Martian government will be unpaid for many years to come. As the population of non-resident Martian citizens (and we hope resident ones as well) increases the possibility of raising revenue via taxes becomes possible. Recall that the United States operated for over a century without a federal income or social security tax.

Q: What would be the form of the Martian government?

A: I would not want my personal preferences to color peoples perception of the plan being proposed for establishing a GFM. That said, my preference is for a constitution-based planet-wide government that permits the establishment of states with strong states rights. At a minimum the Martian government would guarantee the right of emigration from any Martian state and insure the integrity of any Martian national parks. These are just my personal preferences and I will abide, content or otherwise, with the government that evolves from free Martians working at building a government.

Q: Where would the Martian government be located?

A: It would be ideal if some nation transferred some land to the Martian government, perhaps on a temporary basis. A certain amount of bricks and mortar are necessary, but perhaps the majority of the government could exist in cyberspace until operations can be moved to Mars. New York, Washington, Geneva are all expensive possibilities that may someday be converted to the Martian embassy on Earth. A company is building a giant ship that will roam the world (<http://www.freedomship.com>) providing its 50,000 residents with a tax haven home. This might be the perfect place to set up the offices of the Martian government. Remember that the government of the United States moved a number of times before settling into the swamps of Washington DC. Even on Mars an itinerant government might be the norm.

Q: Is it really necessary to go to Mars to take title to the land?

A: Yes. Anyone could, by staking out an unclaimed piece of land, take title by transferring a number of zollars to the Martian central bank equivalent to the number of hectares staked out. Note that the Martian government must establish some guidelines as to how the staking out process works. I would, for example, expect some requirement to exist that the area be defined in terms of one or more rectangular areas and that any area within 100 meters of an adjacent claim share a common property line with the adjacent area. Rules such as this would prevent the creation of tiny islands of unclaimed land between claims.

I believe a corporation or nonprofit entity should be able, via registered representatives, to stake out a claim. Rabid reds (in the Martian sense) could put their zollars where their mouth is and form a kind of land preservation trust and send representatives to Mars to claim additional land for inclusion in such a trust – preventing its development.

Governments would not be able to make a land claim

I would expect the GFM might consider a non-use tax, except in cases where land has been put into a preservation trust. This would be a tax only levied on land left unutilized for some extended period of time. As an example, you acquire 2 hectares of land, and the non-use

tax would go into effect after 5 years, but since you acquired the land to use as the site of your retirement home in 20 years, you would apply for an exemption. If after 20 years you have not begun to use the land you would be required to pay 15 years of back non-use taxes.

Also, your title grants you mineral rights down to some depth and “air” rights up to some altitude above the mean elevation of your land. I leave it to others to work out what the depth and altitude should be.

Once you take title you may sell your land, air rights, or the mineral rights to any entity except a non-Martian government. You may subdivide your property for sale or lease.

Q: What does the GFM do with the land-zollars turned in for claiming land?

A: They must be taken out of circulation though they may be replaced with fiat money, i.e., backed only by the faith and trust people have in the Martian government. The history of land backed currencies is admittedly mixed. The experiments of John Law in the 1720s and the assignats issued during the French Revolution were both disastrous inflationary failures, which revealed the importance of maintaining a fixed relationship between the unit of currency and the quantity of land backing it. The German rentenmark of 1923 illustrated this very nicely and was extremely effective in halting the hyperinflation that preceded it.

APPENDIX B – SMOM FACTS

The flag of SMOM is shown in Figure 1.

The Order maintains diplomatic relations with 90 countries as shown in Table 1.

The Order is also accredited by Representations or Delegations to the following countries:

- Belgium
- France
- Germany
- Luxembourg
- Principality of Monaco
- Switzerland

The Order has permanent representations to the following International Organizations:

- Commission of the European Union - Brussels
- Council of Europe - Strasbourg
- UNESCO - United Nations Education, Science and Culture Organization - Paris
- Permanent Delegation of the UN in Vienna
- FAO - Food and Agricultural Organization - Rome
- UNHCR - United Nations High Commissioner for Refugees - Geneva
- International Committee of the Red Cross - Geneva
- World Health Organization - Geneva
- International Organization for Migration - Geneva
- International Committee of Military Medicine and Pharmacology - Brussels
- Organizations of Central American States - Washington
- UNIDROIT-International Institute for the Unification of Private Law - Rome

In 1994 the Order was admitted to the United Nations as a Permanent Observer.

SMOM stamps, Figures 2 and 3, are issued primarily for the collectors market, however, they are recognized by a few nations, e.g., Macao, Burkina Faso, Bolivia, Lithuania.

SMOM has had its own license plates, Figure 4, since the 1930s. They are issued in pairs by the Italian Minister of Defense, and only issued for vehicles used by a kind of "Military Corps", known by the acronym ACISMOM. Rather than being a war fighting organization it's used for civil protection and disaster relief and works in cooperation with the Italian authorities.

SMOM currency is also issued primarily for the collectors market, but as with the stamps, is accepted in a few countries. The coinage was interrupted in 1798, and resumed in 1961 and has continued regularly since.

Mints: 1961 Rome, 1962 Paris, 1963 Arezzo; since 1964 S.M.O.M.

Currency: Scudo = 12 Tari = 240 Grani

Some SMOM coins are shown in Figure 5 – the 10 Scudi, Figure 6 - the 9 Tari, and Figure 7 – the 10 Grani.

For additional information on the web:

<http://www.smominfo.org/index.asp?idlingua=5>

This is the English version of the S.M.O.M. home page.

<http://www.smommuseum.ch/>

The Museum of the Order of Malta home page. The museum is located in Bardonnex, Switzerland.

APPENDIX C - BIBLIOGRAPHY

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FIGURES AND TABLES



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

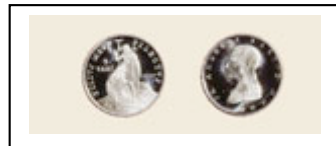


Figure 6



Figure 7

<u>Europe</u>	<u>South America</u>	<u>Asia</u>	<u>Africa</u>	<u>Oceania</u>
Albania	Argentina	Afghanistan	Benin	Micronesia
Austria	Belize	Armenia	Burkina Faso	
Belarus	Bolivia	Cambodia	Cameroon	
Bosnia-Herzegovina	Brazil	Georgia	Cape Verde	
Bulgaria	Chile	Kazakhstan	Chad	
Croatia	Colombia	Lebanon	Central African Republic	
Czech Republic	Costa Rica	Philippines	Comores	
Holy See	Cuba	Tajikistan	Congo,	
Hungary	Dominican Republic	Thailand	Democratic Republic of Congo,	
Italy	Ecuador		Republic of Ivory Coast	
Latvia	Guatemala		Egypt	
Liechtenstein	Guyana		Eritrea	
Lithuania	Haiti		Ethiopia	
Macedonia	Honduras		Gabon	
Malta	Nicaragua		Guinea	
Moldavia	Panama		Guinea-Bissau	
Poland	Paraguay		Equatorial Guinea	
Portugal	Peru		Liberia	
Romania	Saint Lucia		Madagascar	
Russian Federation*	Saint Vincent-Grenadines		Mali	
San Marino	Salvador		Mauritania	
Slovakia	Suriname		Mauritius	
Slovenia	Uruguay		Morocco	
Spain	Venezuela		Mozambique	
Yugoslavia			Niger	
			São Tomé and Príncipe	
			Senegal	
			Seychelles	
			Somalia	
			Sudan	
			Togo	

Table 1

*Relations with the Russian Federation are maintained through a representation enjoying diplomatic rank and privileges.