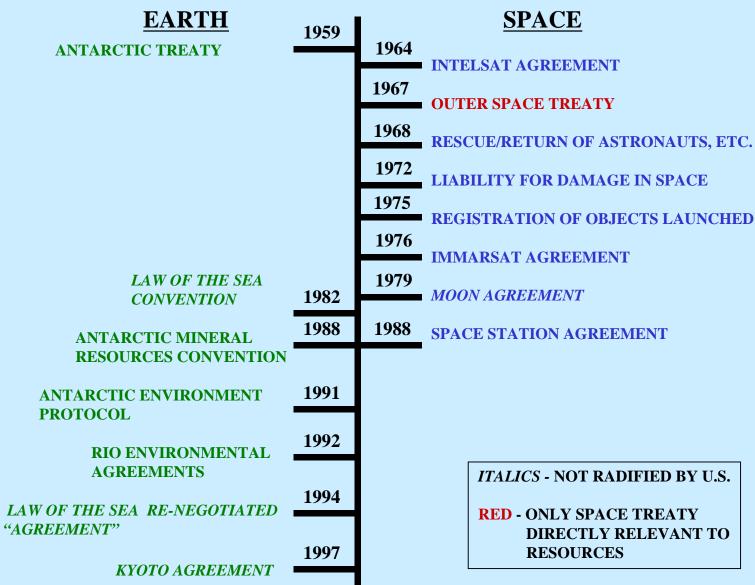
CHRONOLOGY OF INTERNATIONAL AGREEMENTS RELEVANT TO SPACE



ANTARCTIC TREATY SYSTEM

- "...ANTARCTICA SHALL CONTINUE FOREVER TO BE USED EXCLUSIVELY FOR PEACEFUL PURPOSES AND SHALL NOT BECOME THE SCENE OR OBJECT OF INTERNATIONAL DISCORD."
- POPULAR ANALOG FOR FUTURE SPACE LAW
 - LONG STANDING INTERNATIONAL COOPERATION WITHOUT CONFLICT
 - HARSH AND HOSTILE ENVIRONMENT
 - UNIQUE ENVIRONMENTAL FEATURES
 - NO ESTABLISHED TERRITORIAL JURISDICTIONS
 - DISPUTED CLAIMS TO SOVEREIGNTY EXIST
 - NO TRUE HUMAN SETTLEMENT
 - IMPORTANT LOCATION FOR SCIENTIFIC RESEARCH
 - HIGH COST AND TECHNOLOGICALLY COMPLEX OPERATIONS TO SURVIVE
 - MANAGEMENT COMPLEXITY
 - POTENTIALLY ABUNDANT RESOURCES



ANTARCTIC TREATY SYSTEM - 2 TREATY OF 1959 (ENTERED INTO FORCE IN 1961)

- NEGOTIATED AND INITIALLY SIGNED BY 12 NATIONS
- TREATY ESTABLISHED:
 - A LIMITED FRAMEWORK OF PRINCIPLES AND RULES FOR THE PARTIES TO FOLLOW
 - A MECHANISM FOR CONTINUED CONSULTATION
 - A REQUIREMENT FOR UNANIMOUS APPROVAL OF ANY CHANGES
 - PERIODIC CONSULTATIVE MEETINGS
 - A PROVISION FOR OTHER NATIONS TO JOIN IN THE TREATY
- ACTIONS TAKEN SINCE HAVE EXPANDED THE TREATY INTO A DISTINCTIVE LEGAL AND POLITICAL REGIME
- OVER 38 NATIONS PARTICIPATE IN CLOSE COOPERATION
- OTHER SPECIFIC AGREEMENTS HAVE ARISEN FROM THE TREATY

ANTARCTIC TREATY SYSTEM - 3 CONVENTION ON MINERAL RESOURCES OF 1988

- PROPOSED FRAMEWORK FOR DECISIONS RELATIVE TO MINERAL ACTIVITY
- WOULD HAVE REGULATED MINERAL RELATED ACTIVITIES BY OR FOR A SPONSORING STATE
- INCLUDED ALL ISLANDS AND SEABED OF THE CONTINENTAL SHELF
- WOULD NOT HAVE BEEN A DETAILED MINING CODE
- CONTEMPLATED ACTIVITIES BY PRIVATE ENTERPRISE IF SPONSORED BY PARTY
- FEES WOULD HAVE BEEN RESTRICTED TO ANTARCTIC INTERESTS.
- "ENTRY INTO FORCE" NOT ACHIEVED DUE TO OPPOSITION OF THE ENVIRONMENTAL COMMUNITY TO ANY MINERAL RELATED ACTIVITY IN THE ANTARCTIC (CRS 1995)

ANTARCTIC TREATY SYSTEM - 4 PROTOCOL ON ENVIRONMENTAL PROTECTION OF 1991

- FAILURE OF GAINING RATIFICATION OF THE CONVENTION ON MINERAL RESOURCE ACTIVITIES LED TO THIS PROTOCOL.
 - IN 1990, U.S. LAW MADE IT A CRIMINAL ACT FOR US PERSONS TO PARTICIPATE IN ANTARCTIC MINERAL RESOURCE ACTIVITY (CRS 1995)
- DEFINITIVE TREATY ARRANGEMENT
- CONSOLIDATED, COMPREHENSIVE FRAMEWORK FOR A REGIME OF ENVIRONMENTAL PROTECTION FOR THE ANTARCTIC
- ANTARCTICA IS DESIGNATED "AS A NATURAL RESERVE, DEVOTED TO PEACE AND SCIENCE."
- NATIONS CAN OPT OUT AT ANY TIME IN THE FUTURE

ANTARCTIC TREATY SYSTEM - 4 PROTOCOL ON ENVIRONMENTAL PROTECTION OF 1991: REQUIRMENTS

- ENVIRONMENTAL IMPACT ASSESSMENTS FOR ALMOST ANY ACTIVITY
 - HOWEVER, NATIONAL DISCUSSION ALLOWED ON WHICH ACTIVITIES REQUIRE ASSESSMENTS, AND
 - THERE IS NO INDEPENDENT REVIEW
- PROTECTION OF FLORA AND FAUNA
- WASTE DISPOSAL AND MANAGEMENT
- MARINE POLLUTION CONTROL
- AREA PROTECTION AND MANAGEMENT
- <u>PROHIBITION OF MINERAL RESOURCE ACTIVITIES</u>
- CONCERN THAT BY SUPERSEDING THE REGULATORY REGIME OF THE CONVENTION ON MINERAL RESOURCES, THE PROTOCOL MAY ULTIMATELY DAMAGE THE ANTARCTIC ENVIRONMENT WHEN MINERALS ARE DISCOVERED AND NATIONS OPT OUT OF THE PROTOCOL TO MINE THEM (VICUNA, 1994)
- NOTE: THE US SENATE HAS RATIFIED THIS PROTOCOL, HOWEVER, THE PRESIDENT (AS OF4/5/95) HAD NOT DEPOSITED THE INSTRUMENTS OF RATIFICATION PENDING ACTION ON IMPLEMENTING LEGISLATION WHICH WILL IMPACT THE NSF'S ADMINISTRATION OF THE US ANTARCTIC PROGRAM (CRS 1995)

ANTARCTIC TREATY SYSTEM - 5 LESSONS LEARNED? - 1

- **RELATIVE SIMPLE, PRAGMATIC, AND FLEXIBLE APPROACH**
 - FOLLOWED BY OUTER SPACE TREATY
 - INGNORED BY MOON AGREEMENT
- LARGELY BASED ON THE INTERESTS OF THE "USER" STATES
 - FOLLOWED BY SUBSEQUENT SPACE TREATIES
- BYPASS TROUBLESOME ISSUES OF PRINCIPLE NOT REQUIRING AN IMMEDIATE SOLUTION
 - FOLLOWED BY OUTER SPACE TREATY
 - IGNORED BY LAW OF THE SEA CONVENTION
 - TAILORED, DECENTRALIZED, EVOLUTIONARY INSTITUTION
 - IGNORED BY OUTER SPACE TREATY
 - IGNORED BY MOON AGREEMENT
 - IGNORED BY LAW OF THE SEA AGREEMENT
 - FOLLOWED BY INTELSAT AND IMMARSAT
 - **RELY ON COMPETENT SCIENTIFIC AND TECHNICAL INFORMATION AND ADVICE**
 - FOLLOWED BY SUBSEQUENT SPACE TREATIES IGNORED BY LAW OF THE SEA CONVENTION

ANTARCTIC TREATY SYSTEM - 5 LESSONS LEARNED? -2

- RECOMMENDING INTERIM GUIDELINES OR VOLUNTARY RESTRAINTS PENDING FURTHER EXPERIENCE AND CONSULTATION
- CONSULTATIVE MECHANISM WITH INCENTIVES TO PARTICIPATE
- POOLING OF RESEARCH EFFORTS AND RESOURCES
- NOTICE, CONSULTATION AND INSPECTION TO BUILD CONFIDENCE
 - FOLLOWED BY SUBSEQUENT SPACE TREATIES
- UP-FRONT CONSIDERATION OF ENVIRONMENTAL CONCERNS
 - FOLLOWED TO SOME DEGREE IN OUTER SPACE TREATY
- OPEN TO ALL STATES WITH AN INTEREST – FOLLOWED BY SUBSEQUENT SPACE TREATIES
 - **RECOGNITION OF THE INTERNATIONAL COMMUNITY AS A** WHOLE
 - FOLLOWED BY SUBSEQUENT SPACE TREATIES
 - SOME REGULATION MAY BE BETTER THAN OUTRIGHT PROHIBITION
 - FOLLOWED TO SOME DEGREE BY SUBSEQUENT SPACE TREATIES

LAW OF THE SEA CONVENTION - 1982 BACKGROUND

- NO INTERNATIONALLY ACCEPTED GENERAL LAW GOVERNING MINERAL RESOURCES OF THE SEA.
- NATIONAL JURISDICTIONS ESTABLISHED BY ACTIONS AND CONVENTIONS
- **POSITION OF THE US. IS THAT UNDER INTERNATIONAL LAW:**
 - NO STATE MAY CLAIM OR EXERCISE SOVEREIGNTY OVER THE SEABED BEYOND THE LIMITS OF NATIONAL JURISDICTION
 - UNLESS PROHIBITED BY INTERNATIONAL AGREEMENT, A STATE MAY AUTHORIZE ACTIVITIES RELATED TO MINERAL RESOURCES OF THE SEA, PROVIDED THAT:
 - NO SOVEREIGNTY IS CLAIMED OR EXERCISED
 - REASONABLE REGARD IS GIVEN FOR THE RIGHTS OF OTHER STATES
 - MINERALS EXTRACTED BECOME THE PROPERTY OF THE MINING STATE OR PERSON
- "NATIONAL JURISDICTION"
 - ORIGINALLY 3 MILES, OR CANNON SHOT DISTANCE
 - GRADUALLY EXTENDED TO L2 MILES
 - TRUMAN EXTENDED US. JURISDICTION TO THE CONTINENTAL SHELF IN 1945
 - OTHER STATES TOOK SIMILAR ACTIONS
 - FISHING JURISDICTION HAS BEEN EXTENDED TO 200 MILES IN MANY CASES

LAW OF THE SEA CONVENTION - 1982* FIRST ATTEMPT -1

- DISCOVERY, IN 1950, OF LARGE AREAS OF PHOSPHATE AND OF MANGANESE-RICH NODULES CONTAINING COPPER, NICKEL, AND COBALT IN THE DEEP SEA
 - BEGAN THE ATTEMPT TO FRAME AN INTERNATIONAL TREATY GOVERNING ACCESS TO THESE AND OTHER RESOURCES.
- **PROVISIONS OF THE CONVENTION**
 - VAGUE PRINCIPLE OF "COMMON HERITAGE OF MANKIND"
 - INTERNATIONAL SEABED AUTHORITY (ISA) UNDER THE UN
 - ISA IS A ONE NATION, ONE VOTE BODY
 - GOVERNED BY AN ASSEMBLY OF PARTIES WITH AN EXECUTIVE COUNCIL
 - DOMINATED BY "DEVELOPING NATIONS" NOT "USERS"
 - FORMER SOVIET UNION GIVEN THREE SEATS ON THE EXECUTIVE COUNCIL
 - FORMATION OF AN INTERNATIONAL MINING COMPANY, THE "ENTERPRISE"
 - INDUSTRIALIZED NATIONS REQUIRED TO SELL THEIR TECHNOLOGY TO THE ENTERPRISE
 - PRIVATE COMPANIES MAY BE LICENSED BY THE ISA
 - FEES OF UP TO \$1 MILLION/YEAR
 - TAX RATE OF UP TO 70%
 - **REVENUES TO BE DISTRIBUTED TO DEVELOPING NATIONS**

*SEE <http://www.cnie.org/nle/mar-16.html#_1_2> FOR DETAILS

LAW OF THE SEA CONVENTION - 1982 FIRST ATTEMPT -2

- LITTLE INTEREST IN THIS ARRANGEMENT IN THE U.S. IN THE EARLY 1980S
 - TREATY WOULD DETER DEVELOPMENT
 - LACK OF CERTAINTY IN GRANTING CONTRACTS
 - ARTIFICIAL LIMITATIONS ON PRODUCTION
 - FINANCIAL BURDEN OF FEES AND TAXES
 - MANDATED TRANSFER OF TECHNOLOGY
 - INADEQUATE ROLE FOR US IN DECISION MAKING AND IN AMENDING PROCESS
 - FUNDS COULD GO TO SO-CALLED NATIONAL LIBERATION MOVEMENTS
- STATUS
 - 117 NATIONS SIGNED ORIGINALLY
 - 40 MORE LATER
 - 65 RATIFICATIONS BY SEPTEMBER 1994 (WITH 60 REQUIRED FOR ENTRY INTO FORCE IN NOVEMBER 1994)
 - 15 DID NOT SIGN, INCLUDING THE US, UK, HOLLAND, ITALY, JAPAN

LAW OF THE SEA CONVENTION 1982 -1994

- US DEEP SEABED HARD MINERALS ACT PASSED IN 1980
- NOAA AUTHORIZED TO LICENSE US NATIONALS FOR DEEP SEABED MINING
- REAGAN PROCLAMATION IN 1983 CREATED THE EXCLUSIVE ECONOMIC ZONE (EEZ), EXTENDING 200 NM OFFSHORE
- US, UK, FRANCE, BELGIUM, GERMANY, HOLLAND, AND JAPAN AGREED IN 1984 TO RESPECT EACH OTHER'S LICENSING OPERATIONS
- CONVENTION MODIFIED BY 1994 "AGREEMENT"
 - SUBMITTED BY CLINTON IN OCTOBER1994 FOR SENATE RATIFICATION (U.S. SENATE, 1994)



LAW OF THE SEA CONVENTION 1994 AGREEMENT

- **CONFIRMS TERRITORIAL LIMIT OF 12 NAUTICAL MILES**
- **CONFIRMS EXCLUSIVE ECONOMIC ZONE OUT TO 200 NAUTICAL MILES**
- ADDRESSES OCEAN POLLUTION ISSUES
- ADDRESSES SCIENTIFIC RESEARCH
- ENHANCES DISPUTE SETTLEMENT PROVISIONS
- CHANGES MINERAL RESOURCES DEVELOPMENT PROVISIONS (PART XI)
 - PROVIDES GUARANTEED ACCESS BY U.S. FIRMS
 - ELIMINATES MANDATORY TRANSFER OF TECHNOLOGY
 - ELIMINATES PRODUCTION CONTROLS
 - EXISTING SEABED MINE SITES CLAIMS BY U.S. LICENSED FIRMS ARE GRANDFATHERED
- SCALES BACK ADMINISTRATIVE STRUCTURE
- ACTIVATION OF THE CONVENTION'S OPERATING ARM CAN BE BLOCKED "BY U.S. AND A FEW OF ITS ALLIES."
- THE CONVENTION'S OPERATING ARM SUBJECT TO SAME REQUIREMENTS THAT APPLY TO PRIVATE SECTOR
- U.S. HAS NO OBLIGATION TO FINANCE THE CONVENTION'S OPERATING ARM
- SUBSIDES INCONSISTENT WITH GATT ARE PROHIBITED
- ENVIRONMENTAL IMPACT CONSIDERATION STRENGTHENED

LAW OF THE SEA CONVENTION 1994 AGREEMENT POTENTIAL PROBLEMS

- "COMMON HERITAGE OF MANKIND" REMAINS UNDEFINED, HOWEVER, THE PRESIDENT'S MESSAGE TO THE SENATE INDICATES THAT IT MEANS:
 - THE OCEANS AND ITS FLOOR ARE NOT SUBJECT TO NATIONAL APPROPRIATION
 - PRIVATE ECONOMIC ACTIVITY IS CONSISTENT WITH THIS CONCEPT
 - ONLY MINING ACTIVITY IS SUBJECT TO REGULATION BY THE CONVENTION'S INTERNATIONAL SEABED AUTHORITY
- THE EXISTENCE OF THE INTERNATIONAL SEABED AUTHORITY
 - THE POTENTIAL EXISTENCE OF THE CONVENTION'S OWN OPERATING ARM, THE ENTERPRISE, AS INTERNATIONALLY SUPPORTED COMPETITION.
 - CLINTON'S STATEMENT CONTENDS THAT THEY HAVE MADE THIS HARMLESS
 - SPECIAL STATUS CONVERED ON DEVELOPING NATIONS AT THE EXPENSE OF OTHERS
- COMPULSORY DISPUTE SETTLEMENT PROVISIONS
- POTENTIAL FOR INHIBITING LITIGATION
- U.S. QUESTIONABLY APPLIED THE CONVENTION PROVISIONALLY UNTIL NOVEMBER 1998
 - PROVISIONAL APPLICATION NOW LAPSED

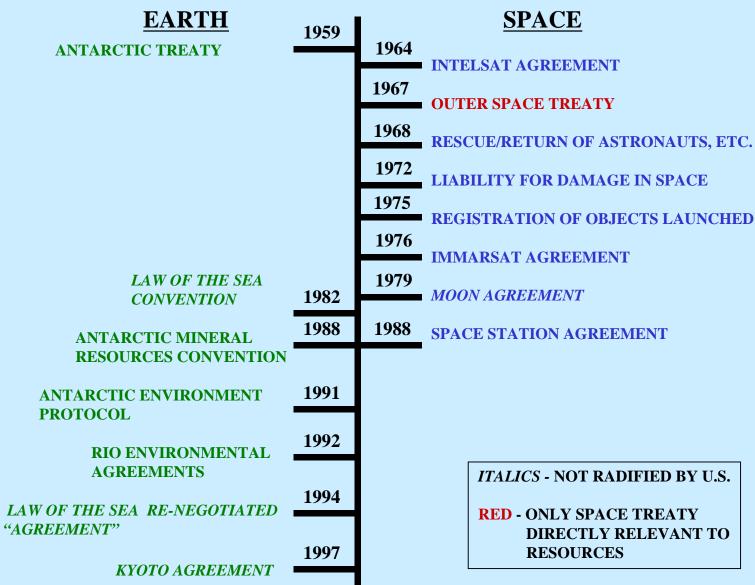
LAW OF THE SEA CONVENTION 1994 AGREEMENT

- STATUS (02/18/01): CONVENTION AND AGREEMENT ARE "IN FORCE"
 - 135 NATIONS 9INCLUDING THE EC) HAVE RADIFIED THE 1982 CONVENTION
 - **100 NATIONS HAVE RADIFIED THE 1994 AGREEMENT**
 - ABSENCE OF U.S. INHIBITS IMPLEMENTATION
- POINTS IN OPPOSITION TO U.S. RADIFICATION
 - DID 1994 AGREEMENT REALLY FIX U.S. OBJECTIONS TO THE 1982 CONVENTION?
 - **COMPLEXITY OF INTERNATIONAL SEABED AUTHORITY**
 - SPECIAL STATUS OF DEVELOPING NATIONS AT EXPENSE OF U.S.
 - COMPULSORY DISPUTE SETTLEMENT PROVISIONS
 - **CONFLICTS WITH EXISTING U.S. LAWS**
 - IMPLICATIONS OF "COMMON HERITAGE OF MANKIND" LANGUAGE
 - **COMMITMENTS IMPLIED**
 - COMMITMENT TO FUNDING OF INTERNATIONAL SEABED AUTHORITY
 - POTENTIAL FOR THE AUTHORITY TO CREATE ITS OWN MINING ARM
 - CONSTITUTIONALITY OF "PROVISIONAL APPLICATION"
 - UNITED STATES DEEP SEABED MINING LAW (DSHMRA)
 - STATED BY CLINTON ADMINISTRATION TO BE SIMILAR TO PROVISIONS IN "THE AGREEMENT"
 - MINING, HOWEVER, REMAINS SUBJECT TO BOTH INTERNATIONAL REGULATION AND POTENTIALLY UNFAIR COMPETITION FROM "THE ENTERPRISE"

PRIMARY PROBLEM THAT MANY IN U.S. HAVE WITH INTERNATIONAL TREATIES SUCH AS THE LAW OF THE SEA CONVENTION (AND KYOTO):

INCREMENTAL LOSS OF SOVERIGENTY TO MAJORITY WITH FUNDAMENTALLY DIFFERENT INTERESTS

CHRONOLOGY OF INTERNATIONAL AGREEMENTS RELEVANT TO SPACE



SPACE LAW: GENERAL STATUS

THE CURRENT INTERNATIONAL TREATY ENVIRONMENT

FOR A PRIVATE, GOVERNMENT, GOVERNMENT / PRIVATE,

MULTILATERAL, OR AN INTERNATIONAL INITIATIVE

TO DEVELOP AND UTILIZE LUNAR RESOURCES

IS CURRENTLY PERMISSIVE

IF THE U.S. GOVERNMENT IS SUPPORTIVE

* THAT IS, NO TREATIES TO WHICH THE UNITED STATES IS A PARTY WOULD, ON THEIR FACE, PREVENT SUCH AN INITIATIVE.

* POLITICAL PRESSURES, HOWEVER, MIGHT BE FELT, DEPENDING ON THE NATURE OF THE INITIATIVE.

OUTER SPACE TREATY OF 1967 PROVISIONS - 1*

- OVER 90 STATES, INCLUDING THE U.S., ARE PARTIES
- DREW HEAVILY ON THE ANTARCTIC TREATY
- HAS HAD BROAD ACCEPTANCE FOR OVER THREE DECADES
- THE TREATY:
 - PERTAINS TO THE EXPLORATION AND <u>USE</u> OF OUTER SPACE, INCLUDING THE MOON AND OTHER CELESTIAL BODIES
 - ACTIVITIES SHALL BE FOR THE <u>BENEFIT AND IN THE INTEREST OF</u> <u>ALL COUNTRIES</u>
 - SPACE SHALL BE THE PRESERVE OF ALL "MANKIND"
 - PROVIDES FREE ACCESS TO ALL NATIONS
 - PROVIDES FOR FREEDOM OF SCIENTIFIC INVESTIGATION AND ENCOURAGES INTERNATIONAL COOPERATION
 - STATES THAT OUTER SPACE IS NOT SUBJECT TO <u>NATIONAL</u> APPROPRIATION

*SEE <http://www.spacelaw.com.au/content/definitional.htm#Top> FOR DETAILS

UNDERLINE INDICATES PERMI LANGUAGE RELATIVE TO RESOURCE USE



OUTER SPACE TREATY OF 1967 PROVISIONS - 2



- PROVIDES THAT THE MOON AND OTHER CELESTIAL BODIES SHALL BE <u>USED</u> ONLY FOR PEACEFUL PURPOSES
- PROVIDES THAT <u>STATE PARTIES SHALL BE RESPONSIBLE FOR CONTINUING</u> <u>SUPERVISION OF NATIONAL ACTIVITIES</u>
- STATES THAT ACTIVITIES WILL BE CONDUCTED WITH DUE REGARD TO INTERESTS OF OTHER PARTIES
- PROVIDES THAT <u>A STATE PARTY RETAIN JURISDICTION AND CONTROL</u> <u>OVER OBJECTS IT PLACES IN OUTER SPACE</u>
- ACTIVITIES ON THE MOON AND OTHER CELESTIAL BODIES WILL BE CONDUCTED SO AS TO AVOID THEIR HARMFUL CONTAMINATION
- PROVIDES FOR CONSULTATION IF THERE IS A POTENTIAL FOR HARMFUL INTERFERENCE WITH THE ACTIVITIES OF OTHERS
- PROVIDES FOR THE DISCLOSURE OF THE NATURE OF ACTIVITIES UNDERTAKEN IN OUTER SPACE
- PROVIDES FOR RECIPROCAL INSPECTION RIGHTS
- PROVIDES FOR AN AMENDING PROCESS
- PROVIDES FOR WITHDRAWAL UPON A ONE YEAR NOTICE



OUTER SPACE TREATY OF 1967 Clementine Titanium Map of the Moon PREMASIONS - 3

- NO SPECIFIC RULES FOR MINERAL DEVELOPMENT ON THE MOON
 - MINERAL DEVELOPMENT NOT PRECLUDED
 - ACTIVITIES GOVERNED BY THE TREATY AND OTHER INTERNATIONAL LAW
 - MOON CAN BE USED FOR PEACEFUL PURPOSES
 - **ACTIVITIES NOT RESTRICTED TO SCIENTIFIC PURPOSES**
 - TERRITORIAL CLAIMS ARE PRECLUDED, BUT "USE" IS NOT
 NATIONAL OR PRIVATE OWNERSHIP OF RESOURCES REMOVED IS NOT
 PRECLUDE
 - -- GENERAL, BUT UNSPECIFIED OBLIGATION TO SHARE BENEFITS -- EXCLUSIVE USE OF INSTALLATIONS IMPLIED
 - •• PROVISIONS FOR ADVANCE NOTICE OF INSPECTION AND RIGHT OF NATIONAL LEGAL JURISDICTION
 - ACTIVITIES BY NON GOVERNMENTAL ENTITIES, SUCH AS CORPORATIONS, ARE PERMITTED
 - ENTITIES OBLIGATED TO AVOID HARMFUL CONTAMINATION BUT BROADER OBLIGATIONS NOT SPELLED OUT
 - STRONG COMMITMENT TO ADVANCE NOTIFICATION AND CONSULTATION IF INTERFERENCE WITH OTHERS IS A POSSIBILITY
 - STATES ARE INTERNATIONALLY LIABLE FOR THEIR ACTIVITIES AND THOSE THEIR JURISDICTION Far side

0.01	0.1	1.0	10.0
TiO ₂ (wt.%)			

OUTER SPACE TREATY OF 1967 GUIDELINES FOR OPERATIONS

- **BINDING RULES OF INTERNATIONAL LAW APPLY**
- RESOURCES MUST BE USED FOR PEACEFUL PURPOSES
- RESOURCES MUST BE USED "FOR THE BENEFIT AND IN THE INTERESTS
 OF ALL COUNTRIES"
- NO CLAIM OF SOVERIGNTY CAN BE MADE AND FREE ACCESS CANNOT BE DENIED
- CONTAMINATION OF THE MOON IS TO BE AVOIDED
- COOPERATION AND MUTUAL ASSISTANCE SHALL BE PROVIDED
- ADVANCED NOTIFICATION AND CONSULTATION RELATIVE TO POTENTIAL INTERFERENCE WITH OTHERS
- LIABLE FOR ACTIVITIES IN SPACE
- OPENNESS AND DATA EXCHANGE WITH OTHER PARTIES TO THE
 TREATY