



**International
Academy of
Astronautics**

UNCOPUOS Legal Subcommittee 48th Session

24 March 2009

**Dr. Jean-Michel Contant
Secretary General**



International
Academy of
Astronautics

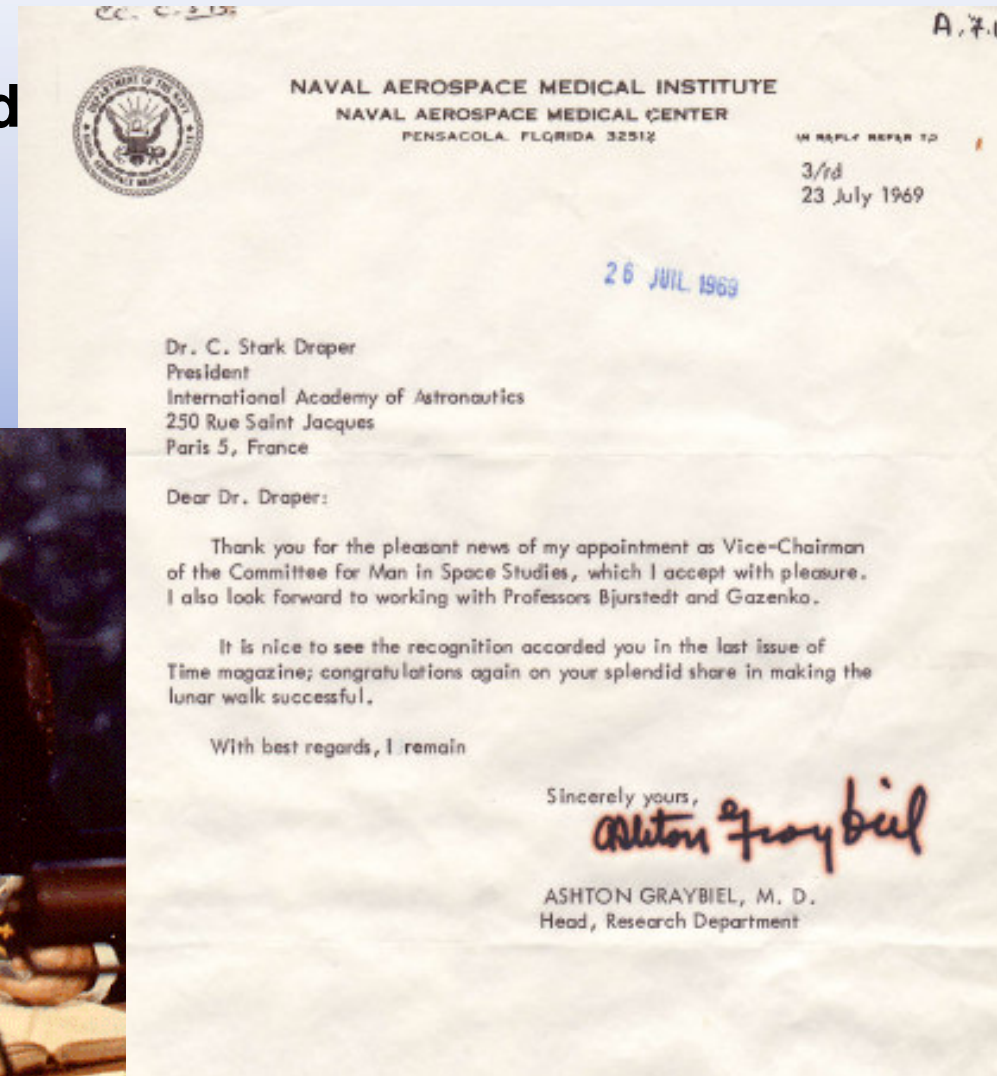
The International Academy of Astronautics (IAA) was founded in Stockholm August 16, 1960

Theodore von Karman First IAA
President and Frank J. Malina Second
President

Stark Draper, Third President

George E Mueller, Forth President

M. Yarymovych Fifth





**International
Academy of
Astronautics**

48th Legal Subcommittee COPUOS Vienna, 24 March 2009

ORGANIZED IN FOUR SECTIONS:

Basic Science

Engineering Science

Life Science

Social Science

BOARD OF TRUSTEES

President – Prof. E. Stone

VP Scientific Activities – Dr. M. Nair

VP Awards And Membership – Dr. H. Matsuo

VP Publications – Dr. S. Konyukhov

VP Finance – Dr. Cl. Haigneré

4 Section Chairs and 24 Section Representatives



**International
Academy of
Astronautics**

48th Legal Subcommittee COPUOS Vienna, 24 March 2009



**IAA-IISL
Scientific Legal
Round Table
Glasgow, UK
2 Oct 2008
Paper Satellites**

**K.U. Schrogl
T. Masson-Swaan
JM Contant**



International
Academy of
Astronautics

48th Legal Subcommittee COPUOS Vienna, 24 March 2009



2200 pages each year

EDITOR IN CHIEF

Rupert Gerzer (Germany)

CO-EDITORS

Commission I: N Smirnov (Russia);

Commission II: M. Heer (Germany);

Commission III: C. Bonnal (France);

Commission IV: JS Chern (Taiwan);

Commission V: KU Schrogl (Austria);

Commission VI: A Skoog (Germany),
H Benaroya (USA)



**International
Academy of
Astronautics**

**48th Legal Subcommittee COPUOS
Vienna, 24 March 2009**

IAA Studies and Position Papers



International
Academy of
Astronautics

Space Dictionaries free of charge

<http://iaaweb.org/content/view/362/510/>

- Communication & Media
- Multilingual
 - IAA in Brief
 - Arabic
 - Bulgarian
 - Chinese
 - Deutsch
 - Dutch
 - English
 - Français
 - Greek
 - Hindi
 - Indonesian
 - Italiano
 - Irish
 - Japanese
 - Magyar
 - Malaysian
 - Polski
 - Português
 - Romana
 - Russian
 - Español
 - Turkish
 - Ukrainian
 - Space Dictionary
- Call For Papers
- Studies & Position Papers
- Scientific Activities

IAA Multilingual Space Dictionary

IAA Multilingual

The Multilingual Space Dictionary Study Group of the fields of astronautics like space science, technology

The Dictionary comprises more than 2600 English to Hungarian, Italian, Japanese, Polish, Portuguese, Romanian, Russian, Spanish, and Ukrainian translators and librarians, moreover to facilitate encyclopedias in different languages. The Japanese and the Chinese Space Agency sponsored the dictionary. The Japanese and the Chinese Space Agency sponsored the dictionary. The Japanese and the Chinese Space Agency sponsored the dictionary.

Free of Charge Download: Version 1.2 (Windows)

The number of terms and languages has been increased

Online Access: Version 2.1 (2628 terms in 20 languages)

国际宇航

学院于

ΣΥΝΟΠΤΙΚΗ ΠΑΡΟΥΣΙΣ

1963, Η Παγκόσμια Ακαδημία Αστροναυτικής ιδρύθηκε στις 16 Αυγούστου 1960, στο Στόκχολμ, Σουηδία, από τον Theodore Von Karman. Αναθεωρημένα καταστατικά και οργάνωση της Ακαδημίας.

Özet

Uluslararası Astronotik Akademisi (IAA)

Kuruluş: 16 Ağustos 1960, Stockholm, İsveç'de 11 üyeli Uluslararası Astronotik Akademisi (IAA) kurulmuştur. 1965, 1983, 1987 ve 1998 de düzenlendi. 1996 da Birleşmiş Milletler Genel Kurulu tarafından Michael Yarymovych (ABD) ve Başkan Yardımcıları, Dr Claudie (Ukrayna); Genel Sekreter Dr Jean-Michel Contant(Fransa) dir.

شاء

.Théodore Von Karman طرف السيد تيودور فن كرمان

1966 سنة المتحدة

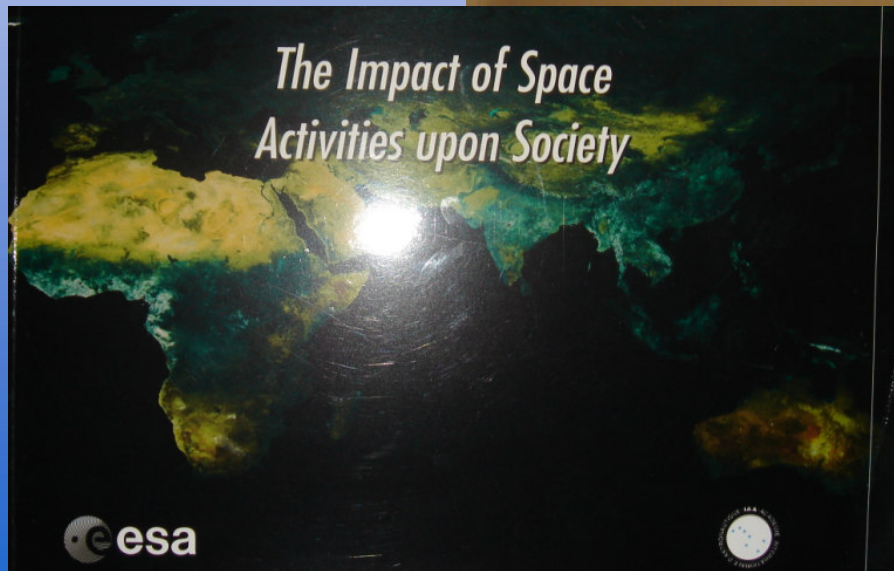
من الولايات المتحدة Prof

第11回国際宇宙航行会議において、1960年8月16日、テオドールフォンカルマン (Theodore von Karman) 及び1998年に改訂されている。1996年、国際連合によって非政府組織(NGO)として承認された。 (Prof. Edward C. Stone) アメリカ合衆国 Dr. M. Yarymovych) アメリカ合衆国 フランス, Mr. MG. Nair インド, 松尾 弘毅 (Dr. H. Matsuo) 日本, Dr. SN. Konyukhov) ロシア, J. M. Contant) フランス



**International
Academy of
Astronautics**

IAA Studies





IAA Nuclear Space Power and Propulsion Studies

Nuclear Propulsion Strategies, Nuclear Thermal Rockets, Nuclear Reactors for Electric Propulsion, Nuclear Safety, Legal aspects & Policies Recommendations, including for instance safety assessment for additional risk posed by Lunar & Mars Base mission scenarios. The study indicates that Space Reactors systems can be used safely and effectively on the surface of other celestial bodies.

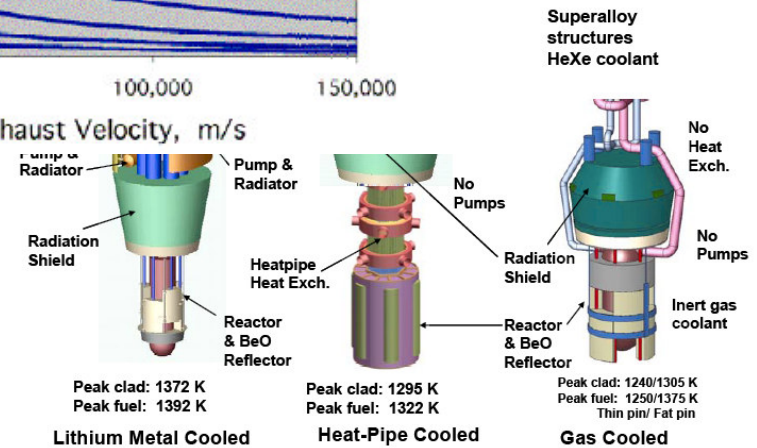
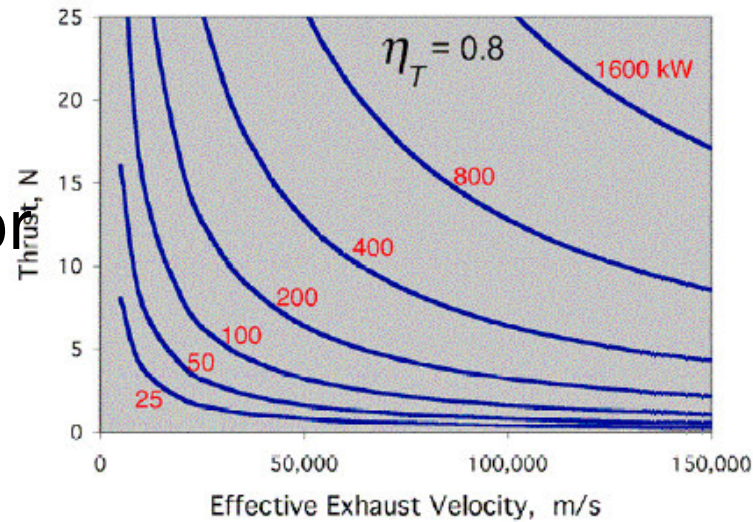
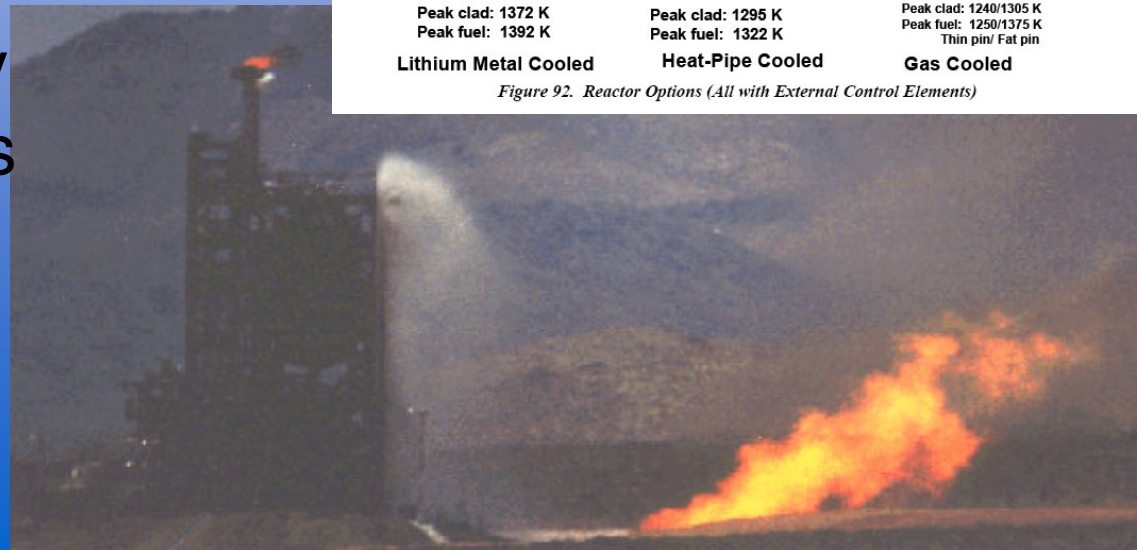


Figure 92. Reactor Options (All with External Control Elements)





International
Academy of
Astronautics

IAA Study Medical Safety and Liability Issues for Short-Duration Commercial Orbital Space Flights



Paris..... → → → → → → → → → → February 1, 2009 ¶

IAA Study on Medical Safety for Passengers on Short-Duration Commercial Space Flights Released ¶

¶ The International Academy of Astronautics (IAA) based in Paris publishes a study on Medical Safety Considerations for Passengers on Short-Duration Commercial Orbital Space Flights. ¶

¶ The report identifies and prioritizes medical screening considerations in order to preserve the health and promote the safety of paying passengers, who intend to participate in short-duration flights (up to 4 weeks) onboard commercial orbital space vehicles. This report is intended for medical personnel employed by commercial space vehicle operators. Physicians supported by other appropriate health professionals who are trained and experienced in the concepts of aerospace medicine should perform the medical assessments of all prospective space passengers. The IAA medical safety considerations are generic in scope and are based on current analysis of physiological and pathological changes that may occur as a result of human exposure to operational and environmental risk factors present during orbital spaceflight. This includes the identification of pre-existing medical conditions that could be aggravated or exacerbated by exposure to the environmental and operational risk factors encountered during launch, in-flight and landing. Such risk factors include: acceleration, barometric pressure, microgravity, ionizing radiation, non-ionizing radiation, noise, vibration, temperature and humidity, cabin air, and behavioral and communication issues. ¶

¶ Due to the wide variety of possible approaches that can be used to design and operate manned commercial orbital space vehicles, it is very difficult to make unequivocal recommendations on specific medical conditions that would not be compatible with ensuring safety during orbital space flight. However, space flight is associated with a number of physiological and psychological changes that may cause and/or aggravate certain



IAA Study Dealing with the Threat to Earth from Asteroids and Comets

This report addresses:

- the nature of the threat, expected future impacts, consequences from various size
- reviews current programs to detect, track, characterize NEOs, and future improvements required
- identifies techniques to alter NEO's orbit and avoid impact
- addresses organizational aspects if serious international capability is to be developed
- addresses behavioral factors, sociological, psychological aspects of the threat
- examines some international policy implications

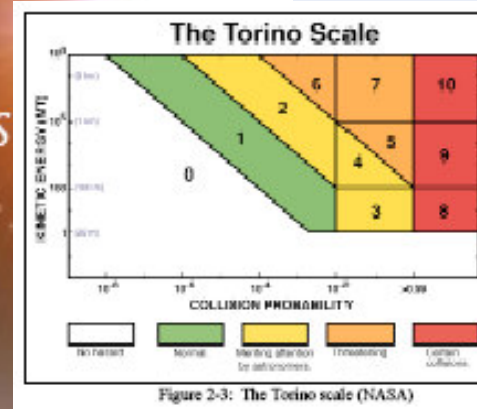
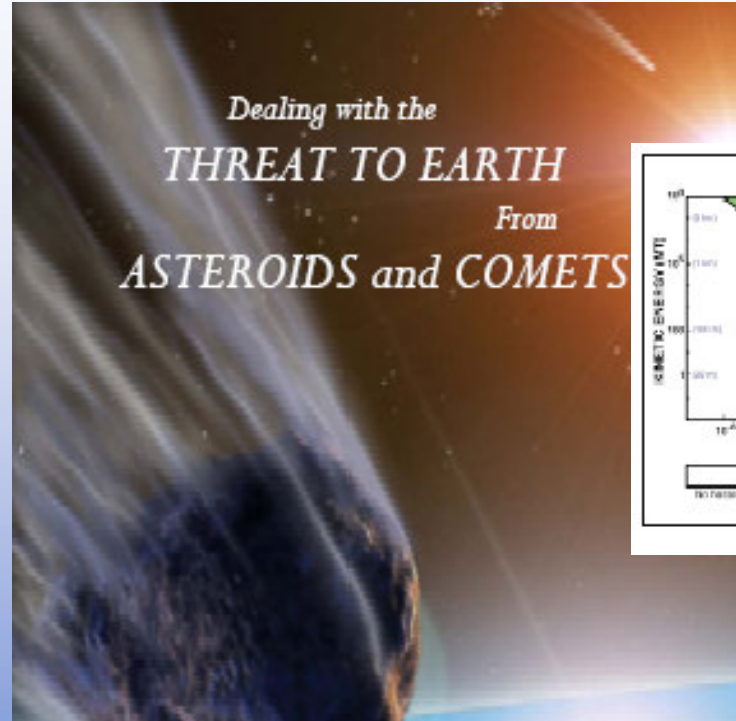


Figure 2-3: The Torino scale (NASA)

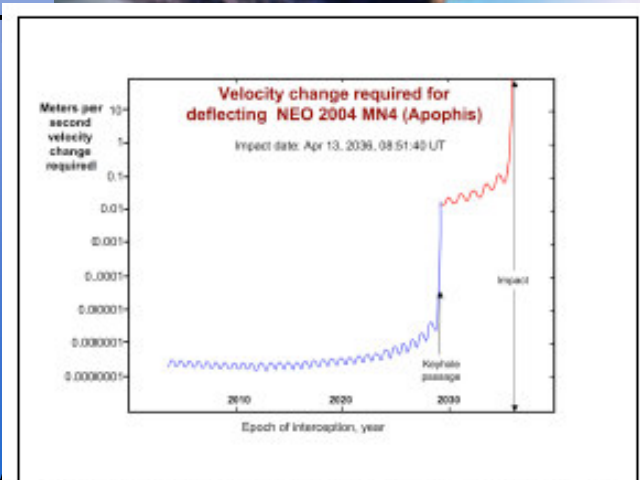
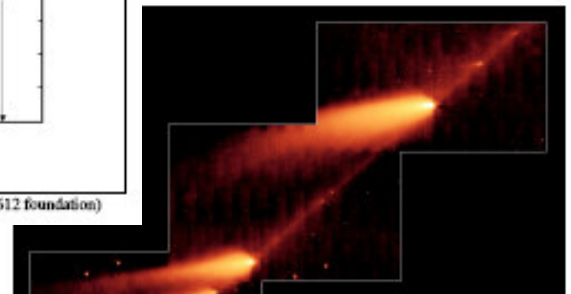


Figure 4-1: ΔV required as a function of time for Apophis (Credit: B612 foundation)





Future Subjects

- Need to keep the Farside of the Moon free from man-made RFI (radio frequency interference) specifically crater Daedalus, is ideal to set up a future radiotelescope to detect radio waves of all kinds that are impossible to detect on Earth.
- We are working to propose that a Protected Antipode Circle to be officially recognized by the United Nations as an International Protected Area, where no radio contamination by humans will possibly take place now and in the future for the benefit of all humankind.



International
Academy of
Astronautics

First IAA Conference in Ukraine





International
Academy of
Astronautics

IAA in Africa: First Conference Abuja





International
Academy of
Astronautics

IAA in Africa: First Conference Tunisia





International
Academy of
Astronautics

First Regional Meeting in Romania





2009 IAA stand alone conferences

- 3rd IAA Conf. Impact of Space on Society, Dnepropetrovsk, Ukraine (April)
- 2nd IAA Conf. Advanced Space Technologies for the Humankind Prosperity, Ukraine (April)
- 7th IAA Symposium Small Satellites for Earth Observation, Berlin (April)
- 1st IAA Planetary Defense Conference, Granada, Spain (April)
- 17th IAA Human in Space Symposium, Moscow, (June)
- 6th Low Cost Planetary Missions Symposium, Goa, India,
- IAA Symposium on Realistic Near Term Advanced Scientific Missions, Aosta, Italy (July)
- IAA co-sponsor UN Symposium on the Use of Small Satellites for Sustainable Development, Graz, Austria
- IAA Solar Power Satellite Workshop, Toronto, Canada
- First IAA Space & Global Safety of Humanity Conference, Cyprus
- 3rd IAA Regional Conference, Path to Knowledge and Development, Abuja, Nigeria (Dec)