*Instructions and application form: see: "Scientific Activity" section at http://iaaweb.org/content/view/256/393/*

# Proposal for Forming an IAA Study Group SG 5.18

**Title of Study:**

Space and disasters management:
new systems, new usages and opportunities for international cooperation

**Proposer(s):**
*Gil Denis*
*Corinne Jorgenson*

**Primary IAA Commission Preference:**
*(From Commission 1 to Commission 6)*
*Commissions: 1 Space Physical Sciences, 2 Space Life Sciences, 3 Space Technology & Systems Development, 4 Space Systems Operations & Utilization, 5 Space Policy, Law & Economics, 6 Space and Society: Culture and Education*
Commission 5 (Space policy, law and economics)

**Secondary IAA Commission Interests:**
*(From Commission 1 to Commission 6)*
Commission 3 (space technology and systems development) and Commission 4 (space systems operations and utilization)

**Members of Study Team**

**Chair(s):**
*(Must be member(s) of the Academy, M or CM)*
Chair: Gil Denis
Co-Chair: Corinne Jorgenson
Co-Chair: TBD

**Secretary:**
TBD

**Other Members:**
*(Open to members and non- members of the Academy)*
- Schreier Gunter (DLR)
- Jolly Claire (OECD) and Pasco Xavier (FRS) invited.
- Former members of the former IAA Disaster WG will be invited to contribute
Akinyede Joseph , Arevalo Yepes Ciro A , Arnould Jacques , Arteaga Serrano Rosalia , Braga Coelho José Raimundo , Chizea Francis , Degtiar Vladimir G , Duverdier Alban , Edwards Reginald J.R. , Gonzalez-Aninat Raimundo , Grimard Max , Gu Xingfa , Hegde Venkatraman S , Homma Masanori , Horikawa Yasushi , Husson Andre , Kabashkin Igor V , Kibe Seishiro , Lysyy Sergey R , Malitikov Efim M. , Mankins John C , Medico Ana , Mendieta-Jimenez Francisco J , Menshikov Valery A. , Mohammed Seidu Oneilo , Moore Berrien , Nair Madhavan G , Navalgund Ranganath R , Novikov Mikhail , Pacheco-Cabrera Enrique , Piso Marius-Ioan , Pushkarsky Sergey V , Ramachandran Radhika , Ramirez de Arellano y Haro Rosa Maria , Razoumny Yury N , Rykhlova Lidija , Seelbach Jeannie , Valenzuela Arnoldo , Visser Pieter N , Xu Wen

## Short Description of Scope of Study

### Overall Goal:

*(Expected scientific or practical benefit of the study group's efforts)*
Provide an up-to-date review of the potential role of space systems in disaster management and response.
Based on the reports of the previous working groups, this study will deliver a comprehensive report, including opportunities offered by new scientific results, the availability of new operational space systems and the potential role of the emerging private sector.
It will cover the main stages of the crisis cycle: prevention and risk assessment, alert and anticipation, emergency response and post-disaster.

### Intermediate Goals:

Former IAA reports have already highlighted the role of space systems in support of the prevention and management of disasters and the benefits of international cooperation in this domain.
The rapid evolution of space technologies, the implementation of new operational systems, the emergence of new scientific methods and the growth of the private space sector justify the need for a new and updated report on this topic.

The detailed objectives of this working group are:
- A review of the new development in space systems, technologies and innovative applications, applicable to disaster management.
- An assessment of the potential role of commercial space (both established players and new space actors).
- An evaluation of new opportunities triggered by these developments in risk management and emergency response, including a discussion of the capacity gaps.
- The impact on governance, in a context of an increasing role of commercial actors, whereas disaster management is usually under the responsibility of institutional actors.
- The best options to foster new opportunities for international or regional cooperation.

## Methodology:

*(Email works, workshops, stand-alone conferences, interim publications, etc.)*
- Email works.
- Regular phone conferences.
- Physical meeting during IAA events (at least one annual meeting during IAC.
- Data collection will also be based on consultations and questionnaires on social media targeting specific communities (space actors, risk and crisis management, first responders).

Intermediate draft reports and summary note on work progress.

## Time Line:

*(Cannot exceed three years)*
< 3 years.
Main milestones:
- Kick-off meeting (phone conference) in June 2019.
- First workshop during IAC 2019 in Washington.
- Second workshop during IAC 2020.
- First draft report in March 2021.
- Third workshop and second version of the report for peer-review in October 2021.
- Publication in March 2022.

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## Final Product (Report, Publication, etc.):

- Final report (with intermediate draft versions).
- Papers and presentations during relevant conferences (including IAC).
- Dissemination of results on social media.

## Target Community:

Wide audience:
- Space agencies
- Institutions and operational organizations involved in risks and disaster management
- Industry Agencies
- Research organizations
- Media

## Support Needed:

- Identification of additional members
- Support for the organization of progress meetings and workshops during IAA events (including IAC).

## Potential Sponsors:

- Space agencies involved in disaster management (members of the International Charter Space and Major Disasters).
- European Commission (Copernicus, TBC)
- OECD Space forum (TBC).

*To be returned to the IAA Secretary General Paris* *by fax: 33 1 47 23 82 16 or*
*by email: sgeneral@iaamail.org*

**Date: 18/03/2019**

**Name: Gil Denis**

*(No Signature required if document authenticated).*