

# A Case for Commission 1

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**Key words:** Commissions, professional practice, FIG.

## **SUMMARY**

*The recent review by the Task Force on Commissions at one stage in its deliberations considered the elimination of Commission 1: Professional Practice and Standards, the transfer of some of its functions (in particular Ethics) and the amalgamation of its other agendas with either Commission 2 or dispersed among the other technical commissions. This proposal has, so far, been rejected and the restructuring of the Commissions delayed for future consideration. Commission 1 is amongst the smaller commissions but plays a valuable if not critical role and meets a valid need within the structure of FIG. The survival of Commission 1 is essential because it deals with important professional issues that are not covered by other FIG Commissions. It also provides a forum for the investigation and possible establishment of new groupings such as the Young Surveyors Network and Women in Surveying, which are needed to build a strong and inclusive future for the profession.*

# The Case for Commission 1

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## 1. INTRODUCTION

In 2015 a Task Force was set up to review, among other matters, the structure of the Commissions of the International Federation of Surveyors (FIG). At the time no specific problem was identified that needed attention, but it was considered that a review was required. The Task Force produced a matrix model of how the work of FIG could be carried out but involving fewer commissions. It proposed a matrix of commissions, task forces and networks, rather than the linear and ‘silo’ model that operates at present but utilising principally the same components. It proposed that some activities, including education, should be spread through the new commission structure. This new model abandoned Commission 1, other than the Ethics component and dispersed Commission 2, among other structural alterations. The proposal was rejected by the General Assembly (GA) in Christchurch 2016.

## 2. THE DEVELOPMENT OF FIG

FIG was founded on 18 July 1878 at Paris by surveyors from Belgium, France, Germany, Great Britain, Italy, Switzerland and Spain. Its purpose was to create unified standards of education for Ingenieur-Géomètres (surveyors) among its members, and to provide guidelines for better cadastral, topographic and geodetic maps. FIG is neither the only nor the oldest global institution to serve the needs of surveyors. There are a number of international organisations that focus their attention on specific disciplines within the wider ambit of the surveying discipline. These include the International Union of Geodesy and Geophysics (IUGG), the International Society for Photogrammetry and Remote Sensing (ISPRS) and the International Hydrographic Office (IHO) to name a few (Aherns, c.1988). However, FIG is the only global organisation to attempt to provide an “umbrella” that brings together geospatial surveyors of all persuasions.

FIG membership is open to professional associations allowing any country to have more than one member, depending on the organisation of the profession in that country. For example, the United Kingdom has two members, the Royal Institution of Chartered Surveyors (RICS) and the Royal Chartered Institute of Civil Engineering Surveyors (CICES), each being full voting members of FIG. While there are other classifications of membership, for example Academic Members, only member associations may vote on matters before a General Assembly. Voting strength is related to the number of members in an association.

In 1987 FIG had 49 members from 44 countries (Aherns c.1988). There has been significant growth of the Federation in recent years and, as at the time of writing, the number of countries represented is 89 and there are 104 member associations (FIG 2018).

The supreme governing body of FIG is the GA. General Assemblies are held annually and are made up of delegates from the member associations. Between meetings of the General Assembly FIG is governed by a Council comprising the President and 4 Vice Presidents and includes member of the Advisory Committee of Commission Officers (ACCO), elected by the ACCO, as an *ex officio* non-voting member. The Council is serviced by the FIG Director or Office Manager.

The technical work of the Federation is carried out by 10 Commissions, each under the guidance of a Commission Chair. The Commission Chairs collectively form the ACCO. There are also three Networks: the Regional Capacity Development Network, the Standards Network and the Young Surveyors Network. The Commissions and Networks may be supplemented by short-term Task Forces established by the General Assembly to address identified issues or to carry out specific tasks that do not fall within the work of any of the Commissions. Additionally there are two permanent institutions, namely the International Institution for the History of Surveying and Measurement and the International Office of Cadastre and Land Records (OICRF). There is also a charitable FIG Foundation.

### 3. THE HISTORY OF THE COMMISSIONS

It can be inferred from Aherns (c.1988) that Commissions first appeared at the II FIG Congress held in Brussels, Belgium in 1910. In addition to a General Assembly and plenary sessions, Aherns records 4 Commissions, namely;

- Commission 1 Pictorial presentations of relief maps (Mesurage);
- Commission 2 Valuation of real estate property (Expertise);
- Commission 3 Problems of cadastral land registration (Administrative);
- Commission 4 International problems in education and professional practice (Internationale).

He also records that the first FIG statutes were drafted at this time, though these were not finally approved in revised form until 1934. For the III FIG Congress in 1926 there were also 4 Commissions, similar in nature to those of 1910.

For the IV FIG Congress held in Zurich, Switzerland in 1930 an exhibition was organised. 11 member countries took part but there were also 21 countries attending as observers. For this congress the number of commissions had grown to 6, namely:

- Commission 1 Unification of professional operations;
- Commission 2 Working methods and survey instruments;
- Commission 3 Legal principles and professional training;
- Commission 4 The surveyor and real property
- Commission 5 Land consolidation and land improvement
- Commission 6 Urban and development planning.

Commissions 2 and 3 also had sub-commissions. It was at this Congress that the origins of the International Office for Cadastral and Land Register (OICRF) were laid with the establishment of the International Information and Consulting Centre for cadastral surveying (Aherns c.1988). In this early period of development the names of the commissions were not fixed, they could

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change their names and new commissions could be (and were) formed. At the V FIG Congress there emerged a Commission entitled “The Junior Surveyor”. At the VII FIG Congress in 1949 there were 10 Commissions and the names of the Commissions were beginning to be standardised. Aherns (c 1988) indicates that by the XI Congress in 1965 in Rome the 9 Commission titles were beginning to resemble those we have today. However, the Commissions were grouped with each Group presided over by one of the three Vice Presidents. These Groups were as follows:

- Group A Commission 1 Professional practice  
Commission 2 Professional education  
Commission 3 Professional literature
- Group B Commission 4 Surveying, photogrammetry and cartography  
Commission 5 Survey instruments and methods  
Commission 6 Engineering Surveys
- Group C Commission 7 Urban Land Systems  
Commission 8 Town Planning and Development  
Commission 9 Valuation and management of real estate.

Hydrographic Surveying appears to have been added in as Commission 10 under Group B for the XII Congress in London, England in 1968. It is deduced that the term of office for Chairs up to this time had been 3 years. The GA resolved that Vice Chairs could progress directly to the Chair of the Commission and it extended the term of office to 4 years. The Aherns paper concludes with reference to 1978, when the assembling of Commissions into Groups was still occurring. It is uncertain when the Grouping of Commissions ceased, but it may have been lost with the structural changes that took place in 2006 with the move away from having an administrative Bureau domiciled in a country for 4 years to an office permanently in Copenhagen. Commission 10, Construction Economics was the last commission to be added, believed to be subsequent to 1998.

The present Commissions are:

- Commission 1 Professional Standards and Practice;
- Commission 2 Professional Education;
- Commission 3 Spatial Information Management;
- Commission 4 Hydrography;
- Commission 5 Positioning and Measurement;
- Commission 6 Engineering Surveying;
- Commission 7 Cadastre and Land Management;
- Commission 8 Spatial Planning and Development;
- Commission 9 Valuation and Management of Real Estate;
- Commission 10 Construction Economics and Management.

#### **4. SURVEYING AS A PROFESSION**

During the last century Surveying has developed from a technical occupation into a profession. While historically there were only three professions, the church, the law and medicine, as a consequence of the Industrial Revolution in Western Europe and the urbanisation that followed,

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new occupations emerged, became more complex reflecting the more complicated way of life, and advanced technologically at an ever-increasing rate. Those advances continue.

For some occupations increasing complexity and the advancement of technology raised the need for higher levels of education. Those occupations that developed into the professions of today increasingly required higher levels of education than ever before. As a consequence, many of these occupations looked to the universities for the basis of the education required for potential new entrants into their occupations, now defined as or seeking to be professions. Following university studies, those wishing to enter a profession must undergo further training in the workplace and prove that they can put the body of knowledge of their professional education to useful purposes for the benefit of society in general and to their clients in particular. In this way they prove their claim to professional status within their chosen vocation (Coutts, 2017).

In order to qualify as a profession an occupation must meet some basic criteria. These include:

- be specialised and intellectually complex;
- having a body of theoretical knowledge that is educationally transferable;
- having a governing body of qualified and recognised practitioners who are competent, trustworthy and largely self-regulating;
- that its members must have demonstrated their competency to the professional body; and
- that its members must subscribe to a level of ethical conduct that can be enforced by that professional body (Coutts, 2017).

It can be inferred that being a member of a professional body is therefore a prerequisite of being regarded as a member of a profession.

During the late 19<sup>th</sup> century many occupations, both old and new, achieved the status of a profession. In the United Kingdom, engineers, architects and surveyors (amongst many others) all formed associations and educated and trained their prospective practitioners. In many cases these bodies developed written and practical examinations to test the competence of aspiring members. Only when such competence was proven were candidates admitted to the professional society. From the early 20<sup>th</sup> century these bodies, the new professions, began to move the educational component of professional development from in-house methods to the universities. From the 1950s surveying programmes in universities have developed in most countries.

The profession of surveying itself, and more particularly land and hydrographic surveying, has undergone massive development with respect to technology over the last century. Following on from the development of photography, photogrammetry began in the 1920s (Staiger, 2009), but it was not until the 1970s that the profession began to be significantly impacted upon by new technologies. The advent of electronic measurement, the appearance of first electric and then electronic computing and its miniaturisation and the digitisation of data, and satellite imagery are the most significant all contribute to an evolution of the land surveying profession that continues apace today.

## **5. DISCUSSION**

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The Commission structure has been a part of FIG for over a hundred years. It has been effective in responding to change in the profession as is evidenced by the evolution of not only the number of Commissions but also their focus, as indicated by the gradual change in their names. In the past, Commissions were assembled into Groups containing similar activities such as professional issues (practice, education, literature) or measurement oriented (geodetic, engineering, cadastral). These groups were overseen, or coordinated, by a Vice President. It is noted that at that time there were 3 Vice Presidents. A new governance structure for FIG was implemented in 2006, and in that structure there are 4 Vice Presidents, and it is surmised that it may have been at this time that the grouping of Commissions was abandoned.

The Commission structure is directly related to the FIG Definition of a Surveyor (FIG, 1991) in that there is a commission covering each of the activities identified. As was demonstrated by the addition of Commission 10 when desired, the structure can be made to respond to new areas of interest or responsibility by the addition of a new commission. It can also be contracted by dropping or amalgamating commissions if matters are considered to be no longer of sufficient importance or relevance. This may have occurred with the Commission on Professional literature, which may have been absorbed by Professional education at some point.

The recent Task Force on the Commissions offered an alternative to the current arrangement of commissions. However, the proposed new structure found little favour with the GA, which seemed satisfied that the present arrangement of 10 Commissions was satisfactory.

A case could be made for the discontinuation of Task Forces (TFs) and for those out-of-the-ordinary issues to be delegated to *ad hoc* Working Groups within the Commissions. The Task Force on Real Estate Markets (TFREM) could have been a Working Group within Commission 9, the Task Force on a Scientific Journal (TFSJ) could have been a Working Group within Commission 2, and the Task Force on Voting Rights (TFVR) might have been a Working Group within Commission 1. More use could be made of the Commissions by greater connection to the requirements of the Council or the General Assembly, rather than creating *ad hoc* Task Forces.

## 6. COMMISSION 1

Commission 1 is a critical component of the commission structure as it includes in its activities the important professional topic of Ethics, for which it has a current Working Group. Ethics are a core component of maintaining the status of any occupation as a profession, and need to be kept at the forefront of professional activity. It may also include other purely professional, as opposed to technical, matters such as mutual recognition.

Commission 1 has proved particularly valuable in the past. Both of the Permanent Institutions, The International Office of Cadastre and Land Record (OICRF) and the Permanent Institution for the History of Surveying and Measurement, had their origins in Commission 1. More recently the Young Surveyors Network sprang from origins in Commission 1, although it is noted that there was a Junior Surveyors commission in the 1930s. At present consideration is

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being given to “spinning-off” a Women in Surveying Network in a similar manner, and there is a commission Working Group considering this question.

While Commission 1 can exist in its own right with a mission to discuss non-technical, non-educational issues, it is also an especially useful incubator for the development of additional parts to the existing structure, as can be seen from the above. It acted in this way in the past and appears to be continuing to do so.

## 7. CONCLUSIONS

The Task Force on Commissions (TFC) provided an alternative structure that did not find favour with the membership. One difficulty that the Task Force faced was that no specific problem had been identified by those wishing a review so that a focus for the TFC would be obvious. It is therefore not surprising that the result was inconclusive and ultimately rejected by the GA.

The Commissions have been in existence almost as long as FIG has been active. Through the preceding 100 years their names and purposes have evolved as the profession has evolved. New Commissions, and other parts in the FIG structure, have been added as and when necessary. This ability to change with time has allowed FIG, and the work that it carries out, to remain responsive to the changing professional environment.

The TFC may have been a diversion from other aspects of the structure that are in need of review or require refreshing. The constitution of the Council, the term of office, the functions of Vice Presidents and the relationship between the mission statement of FIG, the Work Plan of the Council and the Work Plans of the Commissions, could all be usefully reviewed in a similar manner to that of the structure of the commissions. It is not clear why the Grouping of Commissions under a Vice President was abandoned. Reinstatement of such a structure would not only enhance the profile of the Vice Presidents, giving them a clear and defined basic function, but it has the potential to create a closer tie between the objectives and work of the Council and that of the Commissions.

It is clear from the above that Commission 1 performs an important function within the general framework of FIG and of the rest of the Commissions. It is the one place where general topics of professional or structural content can be aired, debated and, if necessary, moved on to the agenda of the Council or the General Assembly for greater consideration. It can be the source of new components or of new non-technical issues as they arise.

More use could be made of the Commissions, and Commission 1 in particular, if the General Assembly and/or the Council so wished. More delegated tasks could enhance Commissions, make Chairing them more demanding and challenging, thereby enhancing the role of the Commission Chair and making it a more prestigious and attractive position. This may encourage more members to make themselves available for office, avoiding the situation of 2018 where there are no contested Chair positions and two of the Commissions lack a single

nominee. It may also relieve the need for having ad hoc Task Forces created for specific issues, thereby complicating the structure of FIG.

## REFERENCES

- Aherns, Herbert. (c.1988) The Historical Development of FIG. Unpublished. FIG.
- Coutts, B. J. (2017) *The Influence of Technology on the Land Surveying Profession*. University of Otago. Dunedin, New Zealand. PhD Thesis.
- FIG. (1991) International Federation of Surveyors. The Definition of a Surveyor. FIG publication No 2. Accessed 29 March 2018.  
[http://www.fig.net/resources/publications/figpub/pub02/figpub\\_2.pdf](http://www.fig.net/resources/publications/figpub/pub02/figpub_2.pdf)
- FIG. (2018) International Federation of Surveyors. Website accessed 29 March.  
<http://www.fig.net/members/index.asp>
- Staiger, Rudolf. (2009). *Push the Button – or Does the Art of Measurement Still Exist*. Paper presented to the FIG Working Week” Surveyors Key Role in Accelerated Development”, Eilat, Israel.  
[http://www.fig.net/resources/proceedings/fig\\_proceedings2009/papers/ps03/ps03\\_staiger-3513.pdf](http://www.fig.net/resources/proceedings/fig_proceedings2009/papers/ps03/ps03_staiger-3513.pdf).

## BIOGRAPHICAL NOTES

**Brian Coutts** is a Research Fellow at the New Zealand National School of Surveying and is professionally qualified as both a surveyor and as a planner. He has held the offices of President of the New Zealand Institute of Surveyors (1999-2000), President of the Commonwealth Association of Surveying and Land Economy (2004-07)), Chair of the Cadastral Surveyors Licensing Board of New Zealand (2002-10) and Deputy Head of New Zealand National School of Surveying in (2007-12). He was Chair of the FIG Working Group on Voting Rights (2011/12), a member of the Task Force on the Commissions, Vice Chair of Commission 1 (2012-2014), has been Commission 1 Chair since 2015 and was the ACCO representative on the FIG Council in 2015/16. His current research interest is focused on the breadth and depth of the changing role of the geospatial surveyor.

**Winnie Shiu** is the Chief Surveyor for the Civil Engineering and Development Department of the Hong Kong Special Administrative Region Government. She is, at present, the only woman Chief Land Surveyor in the Hong Kong Civil Service. Winnie obtained her BSc (Hons) in Surveying and Mapping Sciences at the University of East London and qualified as a Chartered Surveyor with the Royal Institution of Chartered Surveyors in the United Kingdom (UK). She also has a Master’s degree in Public Administration and Development at the University of Birmingham in UK. After working in the UK, she joined the Hong Kong Civil Service as professional Land Surveyor. She has been engaged in various types of surveying work, including topographic survey, cadastral surveying, engineering surveying, GIS and BIM and has been the Principal of the Government’s Survey Training School. She is currently the Vice President of the Hong Kong Institute of Surveyors and has held offices with FIG in various capacities such as the Congress Director of FIG Working Week 2007 in Hong Kong, the Vice Chair (Administration and Communication) Commission 1 since 2015 and is Co-chair of Working Group 1.2 Women in Surveying.

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**Emily Tidey** is the hydrographic surveying lecturer and a PhD candidate at the National School of Surveying at the University of Otago in New Zealand. She is the Chair of the New Zealand Institute of Surveyors (NZIS) Hydrography Professional Stream (HPS), on the NZIS Council, and a member of the executive of the New Zealand Region of the Australasian Hydrographic Surveyors (AHS). Emily obtained her BSurv (Hons) degree from the University of Otago and her MSc with Distinction (Hydrography) on the FIG/IHO/ICA recognised Category A course at the University of Plymouth, UK. She was a recipient of a Federation of International Surveyors (FIG) Foundation Young Surveyor Fellow Award in 2014.

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