The President, Douglas R. MacAyeal, was in the Chair.

26 persons, from 9 countries, attended of which 25 were members.

1. The Minutes of the last Annual General Meeting, published in the 2nd issue of ICE, 2016, No. 171, p. 6–12, were approved on a motion by J Zwally, seconded by B Molnia and signed by the President.

2. The President gave the following report for 2016–2017:

Ladies and gentlemen, members of the IGS and dear colleagues

I took office 6 and a half years ago succeeding Eric Brun to be the 14th President of the IGS since its founder, Gerald Seligman, retired from the post in 1963. As I started my term in 2011, the IGS operated with a mood of contentment, because, except for the long-established Journal of Geophysical Research (JGR) published by the American Geophysical Union (AGU), which had co-evolved with the IGS since the 1950’s, there was little competition from other organizations.

The European Geosciences Union (EGU) established The Cryosphere (TC) in 2007. While it only published 65 papers that year, by 2011, when I began as President, TC had earned the respect of the glaciological community, and published 1,133 pages that year. This number was virtually the same as that of the IGS’s Journal of Glaciology, which was 1,176 in 2011. Despite the fact that the IGS still published 828 pages more than TC when you factored in the 4 Annals of Glaciology issues published in 2011, it was clear that the community was shifting away from the traditional publication model the IGS had sustained since 1947. The EGU’s open-access model and its reduced cost was clearly pressing the IGS to change its publication model.

Over the next 4 years, the main concern I had as President was to navigate the IGS through the existential challenge coming from TC. The principle question was, “How do we stay relevant in the community, especially in terms of our flagship and auxiliary publications, the Journal and Annals?” Fortunately, IGS members Christina Hulbe and Eric Wolff, together with the rest of the IGS publication committee, provided a clear path to navigate. They said that the IGS should embrace an open-access publication model and should also modernize its production process (production = the processing of accepted manuscripts to yield a published paper volume) by considering alternatives to the process that had been successfully operating in the past. Above all, they argued, the IGS should remain mindful of its core values and sense of mission as it navigates the through these changes.

After an extended period of debate, argumentation, consideration of multiple approaches, the IGS council decided at its meeting in Cambridge in 2015 to partner with Cambridge University Press (CUP) and to render all IGS publications beyond the end of 2015 to be fully open access (Gold). (The entire archive of previously published volumes of the Journal and Annals were also to become openly available, but subject
to the copyright agreements that were originally made between the IGS and authors at the time of publication in the past.) The transition to OA publishing under CUP was difficult, and required a great deal of work. Jo Jacka, the renowned Chief Editor of the IGS, who served in his post for more than 13 years, provided a constant compass needle pointed toward the values and qualities that IGS publications must continue to strive for. Magnús Magnússon, the secretary general of the IGS for the last 14 and a half years, proved more than able to establish the partnership with CUP and oversee the down-sizing of the IGS home office. While the big shift in IGS publication model occurred on my watch as President, it was largely these people, Christina, Eric, Jo, Magnús, plus others including Council members and various other volunteers, who were the visionaries as well as the behind-the-scenes workers who accomplished the shift.

Currently, two years out from the IGS re-inventing itself as an efficient, modern open access publisher, we appear to be holding our own. Indeed, our intention is to provide services and opportunities in such a fashion as will allow us to climb back into the pre-eminent place we previously held among publishers that serve the glaciological community. Our statistics for the current year show that submissions to the Journal and Annals are staying constant even despite the new competition from TC and Frontiers in Earth Sciences-Cryospheric Sciences. Our Journal and Annals are both climbing in various metrics of impact, with the most recent accolade being the fact that the Journal’s impact factor now exceeds that of the JGR (3.6 for us, 3.4 for JGR in 2016). Additionally, the Journal and Annals this year, are the two journals of all journals publishing in glaciology to have seen significant impact factor increase from 2015 (+53% and 73% for the Journal and Annals, compared to -10% and +9% for TC and JGR).

We are now on a good path, but we are not out of the woods, and I do not ever think that the IGS should ever be complacent about its ability to compete with the many high-quality journals that the glaciological community can choose between. Constant innovation and adaptation must be part of the IGS organizational activity.

Where does the IGS stand now? The IGS is now in “safe harbour” relative to the difficult restructuring of its publication processes. We have a vibrant new Chief Editorship in the form of 5 co-CE’s who oversee the scientific elements of all IGS publication. Thank you to Graham Cogley (managing co-CE), Hester Jiskoot, Sergio Faria, Perry Bartelt and Frank Pattyn for organizing and leading a fine group of scientific editors. Our publishing partner, CUP, has facilitated a highly modernized method of on-line access to the Journal and Annals, including the entire archive of past papers (now freely available on line, for all intents and purposes, fully open access). Our home office has down sized to 1 full time employee, who is helped by a part time worker and several occasional workers. Our physical footprint has reduced from a large office and storage space that was relatively isolated from the Cambridge, U.K. academic environment (not being physically connected to either SPRI or BAS) by moving into an office at BAS.

I am furthermore happy to announce that the IGS has awarded the Richardson Medal to Dr Julie Palais, the long-standing manager of glaciological programs at the U.S. National Science Foundation. While her career serving glaciological science through maintenance of a strong, focussed program in the US is exemplary, her work to
facilitate the various international programs leading to ice-core drilling and analysis is specifically singled out as meriting recognition by the IGS.

What has predictably not gone as well as we had hoped is what appears to be a drop off in the number of members of the IGS. With the free availability of the Journal and Annals to members and non-members alike, some people in the community have chosen not to renew their membership, and some people who have not previously been members have questioned the need to become a member. The situation is not a crisis for the IGS, however what it means is that the IGS loses two important elements that are supported by membership: we have a reduced income and we have a smaller cadre of members who volunteer to perform the important services that the IGS delivers to the community. Traditionally, the IGS provides charitable support and co-sponsorship to a wide range of community activities. For example, in 2017, the IGS co-sponsored the Summer Training Workshop on Cryoseismology held in Fort Collins, Colorado as well as the Communicating Science Workshop held in Boulder, Colorado. The IGS plans to continue to support summer schools and other training activities in the year to come. The financial scale of the IGS support cannot be maintained unless there is income from member dues (as well as from author publication charges, but dues are how the IGS has the greatest potential to raise income used in the service of the community). The IGS is responding to the drop in membership in 2016 by reducing its membership dues for 2017. Clearly, this is a gamble, but we hope that reducing dues to roughly the same level as those of other entities such as AGU and EGU will encourage membership numbers to rise.

Where to in the future? There were many good ideas for how the IGS could develop or modernize that came up during my term as President which I regrettably was unable to see fully materialize. Foremost on my mind was to ensure that awards and recognition bestowed on individuals in the community by the IGS was equitable in terms of diversity. When I started my term as President, the three main awards by the IGS (the Seligman Crystal, the Richardson Medal and Honorary Membership) had so far only gone to individuals of one gender (with the exception of the name-sake for the Richardson Medal). Hard work by the Awards Committee and the individual members who take on the onerous task of preparing nomination cases, led to the one Seligman Crystal, two Richardson Medal, and one Honorary Membership to 4 females. This is a slow start, in my opinion, but I am encouraged by the fact that the Awards Committee is now activating itself to engage with this issue under the able leadership of Lora Koenig.

Governance is another long-standing area where the IGS should probably seek reforms. In the past, IGS Council members would regularly engage in face-to-face meetings to undertake both the mundane business decisions and the forward-thinking planning of the IGS. It has become increasingly difficult to hold Council meetings during my term where members attending have also attended sufficient numbers of previous Council meetings to allow them to have a sense of the issues the Council has under consideration. This will be a problem for the new officers and Council of the IGS to solve in the coming years.

I close my report with a few personal remarks. First, I thank you, the members of the IGS for having allowed me to serve as your President for the two terms in which I served. I have enjoyed the experience far more than the psychic burden I have experienced worrying about the IGS’s operations and future existence. As I look back
on my 40 years as a glaciologist, I regard having been the IGS President as possibly my best contribution to the world. I am, and shall always be, honoured and uplifted to have been your President.

Douglas R. MacAyeal
President

The Secretary General invited attendees to ask questions or to comment on the Presidents report.

R. Hock commented that it is worth publicising that the IGS has substantially lowered its membership fees with the aim to increase membership. B. Molnia ask if there was a strategy in place to recruit more members. The SG commented that the membership manager has started using a more 'user friendly' communications and hopefully that will make members more aware of what it is like to be an IGS member. The President also replied that our publishing partner, Cambridge University Press, does now provide us with details of what papers are most heavily viewed and cited. The President has gone to the relevant authors that have the most 'views' and thanked them for publishing with the IGS. Such posts have generated several hundreds of 'Likes' and thus increased the IGS's profile. This interaction with IGS authors is something that the IGS should be more proactive in doing in the future.

J. Zwally asked about using more modern website techniques to attract attention from those that visit the IGS site. The SG replied that the IGS is in the process of updating its membership database and as part of that we will be creating a new webpage for the IGS. Suggestions like the above are most welcome and the SG asked members to please communicate their suggestions to the IGS office.

The President also mentioned that IGS members get 10% reduction in the Author Processing Charges (APCs) and that should encourage people to join the IGS. There has been a discussion as to whether this discount should be used in some other way, as if an author's institution pays APCs, then the discount goes to the institution not the member. For example, perhaps a fund could be instigated that could be deployed in a charitable way to support the goals of the Society.

T. Scambos proposed and J. Shea seconded, that the President's report be accepted. This was carried unanimously.

3. The IGS Treasure, I.C. Willis presented his report with the audited Financial Statements for the year ended 31 December 2016.

Fellow members, ladies and gentlemen

The Society’s accounts underwent an independent examination rather than a full audit this year. Throughout my report, I will refer to the Society’s unaudited accounts for 2016, referring to the relevant page numbers.

The Society’s finances are summarised by considering the changes from 1 January 2016 to 31 December 2016, as shown on page 12 of the accounts. In the table, the Restricted Fund is money associated specifically with the Seligman Crystal and the
Richardson Medal. The Unrestricted Funds is everything else.

Restricted Funds: decreased by £831 from £6,065 to £5,234 as a net result of the interest on investments (£122) and the manufacture of Richardson Medals (£953).

Unrestricted Funds: decreased by £58,378 from £526,376 to £467,998 showing that the income to IGS largely from i) membership, ii) its contribution of author processing charges and library income from Cambridge University Press, and iii) symposia attendance, was somewhat less than the expenditure associated with running the IGS office and paying the salaries necessary to manage the IGS affairs.

Total: The Society had its net resources before revaluation drop by £67,469 resulting in the negative movement in the Society’s funds of £59,209 in 2016, compared to profits of £35,697 in 2015, £97,204 in 2014, £8,477 in 2013, £28,092 in 2012, and losses between 2008 and 2011.

This is somewhat disappointing as it is the first net loss for five years, and comes in the year in which the Society made big changes to its operations, downsizing its office and going into partnership with CUP for the publication of the Journal and Annals. I reported last year that the Society had a cumulative deficit of £36,311 running since 2007 and that I hoped to close that entirely this year. Unfortunately, we have now increased that cumulative deficit to £95,520. As a result of office downsizing, our expenditure is now of the order of ~ £310,000 and our total assets are ~ £473,000. In this respect, the Society is not in a bad place, but clearly it cannot continue to support the losses of the magnitude it has incurred this year into the future.

In more detail, income is itemised in notes 2-5, and expenditure is listed in notes 6-8 on pages 17-20 of the accounts.

Income:

Note 2. Donations were £20 in 2016 compared to £92 in 2015. There were no Grants received in 2016.

Note 3. Income from interest on investments increased slightly in 2016 compared to 2015: up £852 from £9,891 to £10,743. Income from this source has been rising steadily for the last few years showing that our choice to invest in a particular “higher interest” but still “low risk” investment account has been a good one. The particular account to invest in is reviewed each year.

Note 4. Incomes associated with the Journal, ICE & Books and with Annals were down massively compared to 2015, of course, as a result of entering into the CUP
partnership. These figures should be judged together with the CUP Royalty figure. Thus, in 2015 the Society received £228,642 from the direct handling of the Journal, ICE & Books, whereas this was only £12,407 in 2016 and (see Note 5 here) comprised the sale of ICE to libraries and members (still managed directly by the Society), the sale of paper copies of the Journal to members (still handled by the Society), and vestigial income from the processing/sale of the Journal before fully handing over to CUP). Similarly, the Society received £120,116 from the handling of Annals in 2015 but just £1,909 in 2016. This (again, see Note 5) was also associated with vestigial processing/sale of the Annals before CUP took over completely.

The CUP Royalty was £111,639 (this is not split by Journal / Annals but I will ask for this to be itemised in future).

Thus, if we look at the difference between the total Journal, ICE & Books and Annals income in 2015 (£348,758) and the same + the CUP Royalty in 2016 (£125,955), the discrepancy is £222,803. A reduction in this source of revenue is to be expected, of course, since CUP are now keeping a proportion of the article processing charges and income from hard copy sales to libraries, in return for producing the Society’s key publications. Some of this disparity is due to slightly fewer Annals papers being processed in 2016 compared to 2015. More importantly, some of the difference is because since 2016 CUP have been collecting an article processing charge for both the Journal and Annals, whereas in 2015 the Society levied a page charge. This has resulted in less revenue per Journal and Annals volume in 2016 than previously.

Returning to Note 4, income from Meetings / Symposia was down by £33,336 from £85,500 in 2015 to £52,134 in 2016. This reflects the fact that three symposia occurred in 2015 (Kathmandu, Iceland & Cambridge) but just one in 2016 (La Jolla). The La Jolla meeting was very successful in terms of income generated cf. the three meetings in 2015 (but see comments re expenditure below - Note 6).

Income from membership was down by £12,803 from £64,440 to £51,637. If this is a result of the move to Open Access and is the beginning of a trend, then this is worrying.

Expenditure:

Note 6. A summary of all expenditure shows that outgoings associated with running Meetings & Symposia were up by £11,194 from £113,743 in 2015 to £124,937 in 2016. This is despite the fact that only one Symposium was run in 2016 (La Jolla) but three (Kathmandu, Iceland & Cambridge) the year before. This increase is partly because two grants totalling £7450 were awarded in 2016 to support the Alaskan and the Argentinian Glaciological Summer Schools (see Note 7) whereas no grants were awarded in 2015. It is also partly the way the invoicing of the La Jolla meeting was organised compared to the 2015 meetings with a bigger proportion of the income and expenditure coming through the IGS bank accounts (see my comment above re La Jolla
Looking at the income and expenditure solely for Meetings and Symposia (comparing Notes 4 and 6) and ignoring the grants of £7,450, we see that in 2015 the three meetings ran at a loss of £28,243 in 2015 (an average loss of £9,414 per meeting) but the La Jolla meeting in 2016 had a deficit of £65,353! This is not a reflection of the local organising committees and their local internal budgeting, but is due to the direct and support costs associated with running the IGS office which are assigned to Symposia/Meeting activity. I mentioned this in my report from last year, that the Society’s symposia are running at a loss when the IGS office costs are factored in. Comparing the last two years suggests that there are considerable economies of scale to be made when the IGS can run three symposia rather than just one. It would also be beneficial if the IGS in combination with local organising committees could obtain additional grant income from sponsors to offset the direct and support costs associated with IGS office activity.

Note 8. Direct costs are down substantially in 2016 compared to 2015 as a result of the Journal and Annals going fully online open access and many former IGS activities now being undertaken by CUP. This is reflected in the reduced printing costs from 2015 to 2016 (IGS still prints ICE and circulars but not the Journal / Annals), distribution costs (again, IGS still posts ICE and circulars), online submission fees (IGS still manages this for symposia but not for papers); with the biggest reductions seen in the wages and salaries and associated national insurance and pension contribution costs. Proof reading / editorial costs have also dropped to zero, of course, as a result of these costs now being shouldered by CUP.

Many support costs are also down as a result of the CUP collaboration, notably telephone, stationery & postage, computer and web hosting, and wages and salaries and the associated national insurance and pension contribution costs. Office rent is comparable, although the IGS moved part way through the year to a smaller unit within the British Antarctic Survey. There may be savings on this item in subsequent years as a result.

Travel and subsistence costs (largely the “out of Cambridge” costs of our Secretary General) has undergone a modest reduction of £2,861 from £17,455 in 2015 to £14,594 in 2016, in part a result of the Society hosting two fewer symposia in 2016 vs. 2015.

Termination costs was a substantial item on last year’s accounts; one member of the original valued production staff continued to work throughout January 2016 just after the transition to CUP and this is reflected in the modest termination cost of £2,797 for 2016.
The Independent Examination fee was less in 2016 than 2015 (a saving of £1000), largely a result of the simpler accounting as the IGS has streamlined its activities with its partnership with CUP.

Professional fees were high in 2015 (associated with consultations about contract termination and the partnership agreement with CUP) and these were substantially reduced, therefore, in 2016.

Summary

The Society’s finances are in reasonably good shape but the recent four year trend of turning in a profit has been reversed this year. We ran a significant deficit in 2016 (~11% of funds) compared to a surpluses in 2015 (~7% of funds), 2014 (~20% of funds), 2013 (~2% of funds), and 2012 (~7% of funds), and various deficits between 2008 and 2011 (ranging from ~1% to ~27% of funds). Despite this, our funds now exceed our annual expenditure, which is a healthy place to be in.

The Society will need to continue to monitor its income largely from CUP, membership fees, and symposia registration, and its outgoings associated with running symposia and running the IGS office.

It is increasingly important for the IGS to hold on to and attract new authors and have them submit articles to the Journal and to Annals. The more papers published, the greater the contribution the IGS receives from CUP. This is the main single revenue stream to the Society. It is also increasingly important for the Society to hold on to and attract new members, as membership fees are also a valuable source of income to the Society. It will need to think of innovative ways of making the Society more attractive, especially now that a major reason for joining (copies of the Journal) is no longer an incentive because of Open Access. It is difficult to see how individual Symposia registration fees can be increased as these are already relatively high compared to, e.g., EGU and AGU. But obtaining external grants to sponsor certain aspects of IGS Symposia and which therefore benefit the Society would be advantageous.

On the output side, the Society must monitor its expenditure associated with running symposia and with generally running the IGS. There are economies of scale to be made when the Society runs more than one symposium per year and it would be advantageous if the Society could run two or three per year rather than just one if possible. Salary costs (including NI and pension contributions) are by far the most expensive item of expenditure (totalling £117,299 in 2016, 38% of all expenditure). The Society should continue to ensure that salary inflation and travel and subsistence rates are sustainable.

Ian C. Willis, Treasurer
7 August 2017

The President invited members to discuss the Treasurer's report.
F. Navarro proposed, and B. Molnia seconded, that the Treasurer's report be accepted. This was carried unanimously.

The Secretary General proposed the IGS remain with our current auditors, Messrs Peters Elworthy and Moore, as they had been doing our accounts for several decades they knew the innards of the IGS very well.

On a motion from the Secretary General, B Parizek proposed and T. Bartholomaus seconded, that Messrs Peters Elworthy and Moore of Cambridge be elected 'Independent Inspectors or Auditors', whichever is appropriate for the 2016 accounts. This was carried unanimously.

5. Elections to Council. After circulation to members of the Society the Council's suggested list of nominees for 2017–20120, no further nominations were received, and the following members were therefore elected unanimously.

President: Francisco J. Navarro
Vice-Presidents: Hilmar Gudmundsson
                     Julienne Stroeve
Elective Members: Koji Fujita
                       Adam Treverrow
                       Nanna Karlsson

These appointments were unanimously approved by the AGM on a motion from J Zwally and seconded by B Molnia.

The President raised the question of whether the Council should take steps to further involve the membership in the nominating process and to encourage members to be more pro-active in putting forward nominations for officers and Council members. He then thanked the outgoing Council members and welcomed the newly elected members.

The outgoing President DR MacAyeal now handed the chairmanship of the IGS AGM over to the newly elected President, F Navarro.

6. Other business:
J Zwally commented that we all, as IGS members should actively encourage authors to submit to the IGS publications. In his experience IGS publications provide authors and reviewers with a considerable amount of detail relating to the processing of paper submissions. We should continue with and hopefully increase the number of profiled papers and we should try and actively interact with the press and encourage them to look towards IGS publications for news stories. We should try and have more press releases as those increase the profile of our publications, in particular the Journal of Glaciology. T Scambos encouraged the diversity of the IGS publications and that with a new website we should show innovation and emphasize what sets us apart from other publications. One such thing could possibly be the publication of data papers. He also advocated that we should try and encourage the community to think in terms of being a member of the IGS and also as such being an author that publishes in IGS publications. The IGS community provides authors with thorough reviews and in that, provides a valuable benefit to authors in helping them develop skills as a scientific authors without having everything on display which in some cases can have a detrimental effect on early career authors. The IGS needs to harness the massive community of young scientists that is emerging as is seen in their attendance at the AGU fall meeting and make sure they are part of the IGS in the future. L Stevens suggested that the IGS should set up a mentoring program. There are organisations that have been very successful in doing this and it would encourage young scientists to join and to participate in the workings of the IGS. R Hock responded that this could be one of the first tasks of the proposed 'Young glaciologists' committee that Council is proposing to establish. M Truffer commented that the IGS needs to put much more emphasis on things like mentoring, diversity, sexual harassment, equality etc. Those are issues that the professional community has and the IGS has to engage in them. T Bartholomaus said that one of his favourite things with the IGS is the people and the affinity that we have for each other. What the IGS is 'selling' is the community and the support we can provide to each other and the feeling that we are doing this together. He welcomed that the membership costs have decreased but raised the question whether it would be possible to reduce them even further. We need to make it a 'no-brainer' for graduate students to join. Lower membership rates and mentoring would definitely encourage young scientists to join. Lower prices for younger members would get them into the IGS and once they become established they can hopefully afford to pay a higher rate. A Banwell also pointed out that quite often young scientists do not have a 'fund' they can charge their membership to and are thus forced to pay it out of their own pocket. B Molnia suggested that the new website should include a section where members can communicate with each other and interact with the general membership at large. And ICE could possibly be expanded to include such a forum. A discussion about the upcoming new website for the IGS ensued and the point was made that maintaining a website is very time consuming and at the same time it is very important there be a person responsible for it. The SG expanded on this saying that the new website would be hosted outside the University of Cambridge and that would make it easier to allow other people to come in and maintain certain sections of the site that are relevant to them. An example of this would be different IGS branches and the various committees that operate within the IGS. Members commented that the upcoming 'Code of Conduct' is very important and it was suggested that the membership as a whole should be asked to ratify it so everyone
would be aware of it. The SG explained the procedure that was used to develop the
Code. It was suggested that the previously mentioned mentorship program should be
linked to the Code and it be known that IGS members, possibly through a small focus
group, are there to help colleagues, in particular younger ones, who may have issues
and complaints. Such a focus group would have to be ‘elastic’ in such a way that when
dealing with an issue, those advising would be independent and not in any way related
to the ‘progression’ of the person in question.
The question was raised whether reports made to Council about the various activities
of the Society should be made public. In particular some statistics relating to workings
of the Society such as the publication e.g. number of submissions, acceptance rate,
publishation times etc. The SG commented that those reports are confidential and that if
the report authors were aware that the full report would be made public, certain things,
that are important for Council members be aware of, might possibly be left out of the
reports. But it would be an idea to have edited versions of the reports made available
to members.
T Bartholomaeus asked if the IGS should be offering advice on the risk management of
fieldwork. The meetings responded this would be outside the scope of the IGS and
such advice could potentially invite litigation and the infrastructure to maintain such
an advisory panel would be substantial. There are organisations, such as the British
Antarctic Survey, Alfred Wegener Institute and several universities that have a large
section that deal with risk managements relating to fieldwork and the IGS should not
and cannot take part in such a venture. There is also the issue that the various
universities and indeed the different countries have different rules. It might however be
a possibility to have a discussion forum where people could ask questions and
comment on what is involved in running a field campaign. There would have to be a
big headline disclaimer for such a forum however.

No other items were raised.

The President asked for a motion to adjourn the AGM.

The AGM was adjourned on a motion from DR. MacAyeal and seconded by J. Zwally
at 20:09 PDT.