# Introduction

IPY EOC Assessment Project

Monday, 25 October 2010

**Goals:**

How to stipulate people to keep EOC in mind in future science campaigns

Tangible products

Impact factor, rewards or value system (quantify participation)

**Background:**

- Thank you to Sandy, Margarette, and others for doing such a great job with the IPY EOC Committee
- Jenny and Dave and others applied to get funding for this
- AWI put in a lot of resources to make this happen
- Been lots of discussion- and agree it is important
- How to carry this forward
- How to recognize the participants and contributors

**Information that exists:**

- Polar science book
- Theme 6 IPY Oslo Abstracts
- ARCUS survey, US Activities
- Polar Day / Polar Week Participants
- Draft IPY EOC report from Sandy
- IPY Lessons paper by Rhian and Dave
- Project Reports for Canadian projects
- A lot of info out there! Asking for things as she goes.
- Need national reports

**To date:**

- 329 EOC projects
- Challenges to log these
- Most reports in good language

- Wants to get beyond the English speaking countries, and make sure to access these reports also
- Jennifer P has got the "easy" pieces so far

**Target groups- very diverse**
- some more diverse and some specific
- interesting to see the breakdown, see who wasn't "hit" as well by the EOC activities?

**How do we Define a project?**
- some stand a lone projects, but there were also science projects that had EOC chunks
- How do we break these things down by different levels and types?
- How to get these little parts, from people's science projects- important to capture
- Funding at the major EOC level will not be the same as it was during the IPY
- What is the difference between what is reported as EOC as part of science versus projects during the IPY
- Tangible goal- at end of the meeting we need to have an idea of what needs to be logged and how to be logged and entered into a repository

**Medium of the Outreach**
- also hard because things are so diverse and some address more than one medium

**Highlight some of the projects:**

- Ice Stories, Exploratorium in California – science center engaged scientists and taught them to communicate to the public, held exhibits, and facilitated communication- acts as a conduit and bridge to the science

- Sub-zero soccer in India: all inter-collegial tournaments had polar names, within the event lectures, cinema, and exhibits-had a huge number of participants and people were immersed in the subject
- take something like soccer and making it an eoc event and making it fun and educational
- Polar days- set up on a specific topic, send a virtual balloon, see where people signed in from – each event had a virtual balloon launch
- these events were easy to access, networks established were key, and they are now established and how do we keep them going and save that communication flow

**Specific Goals and Objectives:**
- conduct initial assessment of WHAT happened
- inventory and planning for a general assessment
- id the target groups
- key activities to sustain polar research outreach
- involvement of early career researchers
- construct a set of lessons learned, need to pull in the resources and synthesize in a more complete way- as some of these things exist
- discuss roles of IPY organizations and partners and who contributed to the success of the IPY EOC activities

**Determine:**
- what happened
- what external factors helped to make it successful and may have been unique to IPY
- what should happen next and how do the networks maintain themselves and stay active and tap into them in the future?

**Products:**
- Inventory
- Recommendations on the future of the EOC for polar community and tangible experience based info for the group- big scale what works

**Focus—for this meeting:**
- How do we communicate this message to the interested parties? (ex, like an inventory)
- How make it useful, active, accessible, carry forward
- What other products, ideas could come up in the future? Track-even is we cannot address

**Inventory**
- use resources already amounted
- ID the gaps (people, organizations, country, etc.)
    - 63 official IPY countries – have at least one official record from the countries (40)
    - what activities "spanned" because of IPY – but were not necessarily planned or budgeted for?
    - Outside countries came in through Polar Days and Polar Weeks-countries without the national committees
    - International effort bigger than what works in one region
    - What countries had products that existed before the IPY? How do these fit in? Rebranded as IPY, but not outside funding?
    - Really important to have the countries/activities that were originally outside the IPY projects
    - Other things are more normal, but previous point are something NEW, and important to document! They see their project recognized at international level, and that's good
    - From beginning, important to find activities that worked on an international level and who brought these to fruition
    - We will need to think about how to categorize these projects
    - What created IPY in the public mind? They are less concerned about the mechanics behind it
    - "IPY inspired" projects? The people who were not funded but inspired to take part.

**How to target the areas where we do not have information?**
- Sandy to help with the Asian component, translate survey and results from those countries

- Russian another language key for gathering information too – APECS members to assist
- Keep names of survey so there is not "accountability" in nations where this would not be looked highly on

**Also need to notify the national groups we are doing this**
- get the country reports
- will EOC be given enough importance to be in the National Committee's report?
- Impact factor- a tangible measurement to add to the report
- Problem: How far can you go into impact assessment?
- Challenge to communicate to provide the information, and at what level do they provide this?
- This means different things to different people "evaluation"
- Usability varies a lot – between inventory and some best practices and guidelines
- Need structural lessons learned- what factors made this happen
- What factors and structures facilitates "making this happen"

**Evaluation:**
- case studies, evaluation- do it!
- Define the terms to those who are participating in the survey
- Evaluation vs data collection

**Survey:**
- at point it is ready to go, but held off on putting it out because there is the need for an online survey tool available
- get it out in English and see how far it goes
- put out in another few languages- Russian, Spanish, and Chinese (UN Languages)
- Re-engage the WMO translation offices for translation in house
- WMO also has their own networks that they could send things to
- Where do we send it out

# EOC Survey Discussion <span>11/2/2010 4:41:00 PM</span>

**MAIN THINGS**

1. EOC Survey
2. EOC Impact Factor
3. Searchable Repository
   - Additional list of recommendations, so that we can concentrate on the tasks at hand
   - Survey currently in form to incorporate people's ideas and suggestions
   - It is huge and has grown, because of all the opinions
   - ID what questions are key, and what we want to have to start narrowing it down
   - The purpose of the survey is to collect information on IPY EOC projects that we might not have info on via the various sources already collected. At the same time, we need to think about making this information available to other groups who may want to model their EOC programme after an IPY project (thus the searchable repository). The survey is not targeted at groups that we already have information about.

**Definitions of Education, Outreach, and Communication**
   - Do we need to ID projects that fit into these categories?
   - Does this happen at survey level or at the analysis level

**Who are we gathering information from?**
   - make it clear we are expecting information from scientists as well as EOC peoples
   - do you have to have a professional educator to make this project work? Trying to get that with the question about the EOC training.
   - Funding agencies may want to know where funding is coming from to get ideas of where others can go to find funds
   - Help quantify the "new money" that went to IPY – does this come from the survey or from the individual funding sources, so we will be able to ID the countries that provided extra money (Dave C probably has this information in his head)

- Separate means to gather information about higher level analysis of the funding use, that scientists and educators on the ground may not have—ask a few questions of institutional directors
- Can this information help policy makers decide how money should be allotted for solutions based science, education and outreach, etc. – where is it useful to put money so that you get the human dimensions side?


**TARGET AUDIENCE**
Think about sending this out as a pilot before mass sending
- especially the non English speakers, since this is where we will really need to get the small bits of information to show the excitement and global impact of IPY EOC
- Who would be a good pilot group?
- Forward to anyone you know who was involved
- Send to lists, national committees, etc.

**Next Steps:**
- review the survey in the next week
- get back to Jennifer with ideas

**Goals/target audiences:**
- to have a repository for IPY material to be put to use in the classroom
(*This already exists via the Polar Resource Book. We decided to figure out how to get that online and advertised, but to have the repository serve as a place where people can find ideas of outreach activities and people to contact to develop their own programme?*)
- funding agencies and science institutions- what works?

How do you store these things?
How do you format these things?

**Google Docs:**
- Each PDF becomes a doc in that form
- searchable
- online and easy to access
- but google groups are changing
- it also converts PDF's to searchable, but deconstructs the format
- unfortunately it doesn't handle PDF's very well and cannot do pictures and text very well

**Government house this as a website?**
- So that people already using things can find these things?
- Is there a place where things can exist already, and non IPY people will find things?

PIC- Polar Information Commons, is not about creating new databases, but connects the databases
-        can be searchable from many ways

**The questions that need to be addressed!**
Why
Who
How
Where

EOC Projects- existing, populated by one person (Jen) probably
-        plan an archive before you have the event!

**Who & How**
National Committee: Sharing best practices, how to on various levels

Challenge – we will not be able to archive all this

**How do you get credit for EOC for the current academic system?**
- Not getting proper 'job performance credit' makes it hard to justify the work that is being done
- People do it on the sly, because their bosses don't want them doing it or would rather have them spending more time on research

Impact factor, is not how well does it work, but a way to put this on the resume as in "I did this, and it was this important"

Term- from journals, they have an "impact factor"

Ex) Gave a talk to a 6th grade talk vs. something else
- what has the greatest "impact"

Depth and width (numbers)

Stick in your variables, and have a model for measuring impacts

This has been one of the recommendations from the ICSU grant- have a recognition system within the science community, and outcome of the IPY

This is being discussed a lot, because there is a point system and you get points accordingly in Norway (more less points for high impact journals)
- but are they " high impact" because they don't reach out

Ethics of it - why try to do the small things? We still need these things.
- Does this lead to misconnect and how is it policed?
- do we come out of this meeting with a recommendation?

Due to time constraints, the agenda was changed and this topic tabled for now. Could be one of our 'recommendations' to create such a 'reward system'

**1) WHY DID IPY EOC WORK**
- It is a system, a combination of things happened to make this work, and was very interlinked
- Model the dynamics and the system
- It was timely
- Not just polar, international science – what makes programs work?
- Timely
- Holistic approach
- Research and advocacy and EOC at the same time- unlike any other campaigns
- Experiment led by the scientific community- really fantastic that they initiated this
- ICSU, not that money into it, but put the credence- stamp of approval added value
- What is the difference between the other "year of's" – were they only for public relations?
- The physicists can learn from IPY too- integrated and strong international level—eoc activities on an international level
- International – like the Antarctic treaty, and arctic council
- Media perspective- the branding- the recognizable reference
- The problem with science is that the references take two paragraphs- the science could be branded
- Scientists document the field work to a much larger extent that what had been done before- journalists, teachers, etc. were involved
- Lots came together at the same time, visually stunning
- Branding crossed society – all aspects and tied back into the science – bigger than yourself
- Happenstance- serendipitous issues and things
- The right people were involved, and having a great committee- practitioners from across the E O and C
- Mobilization of funding, national governments saw the value and put the money out there
- What can be replicable?
- IPY Exploited the popular interest in the issues

- Are we asking people how people got "sucked in" to the IPY? How was this contagious or viral?
- Very simple message- not always a science based message
- See the process of science- demystified science, trust science
- Willingness- someone got credit for doing outreach
- A lot of champions- paid and unpaid people who asked for the resources
- Beginning – from the first paper and it was held at a important part
- Planned EOC and not held off until the end
- There were no lulls in the excitement, regular and continuous engagements
- It was grassroots- it came from the scientists and not from a government
- Exploit and make the most use of technology – have a website and lots of media—but did not follow the least common denominator approach – part of the continuing communication
- Accessible to everyone – everything possible was done
- Community building part was integral- and it was instant – join the google group and bang- you are there – international
- Ipy polar days, initially sheets done in a few languages and end was in 22 languages
- Inclusive approach- no copyright on the IPY, and everyone was invited onboard and to use the branding – welcome people into the community from various backgrounds, wasn't an elite club

*INTERCONNECTEDNESS between the key factors*


**ARE THERE NEW NORMS FOR SCIENCE OUTREACH, EDUCATION, AND COMMUNICATION IN SCIENCE INITITIVES FOR PROGRAMS AND PROJECTS**
- How have the bars been raised?
- How do we carry that forward?
- Separate the education, outreach, and communication
- What are some of the new norms?


**NEW NORMS:**
- Planned for EOC, build in from the outset versus at the end

- Engagement and training in EOC
- EOC and Science integration

**WHAT SHOULD OTHER LARGE SCALE SCIENCE PROGRAMS DO?**
- Key target groups
- Activities to sustain the?
- Percentage of the budget dedicated to EOC
- Conduct an evaluation!
  - Most did not do this, so cannot really say what the impact was of the global effect of the IPY
  - System will allow for organization at the outset
- Prepare for archival before the campaign begins

**WHAT TOOLS and NEXT STEPS DO RESEARCHERS NEED TO DO EOC EFFECTIVLY**
- Comes from the survey- the pieces and data to back it up
- Budget money and time
- Dedicated personnel time
- Training and capacity building
- Recognition for participation

**4) How do we move forward?**
- How do we keep people connected, and maintain the connections and networks?
- Specific to the networks of polar science?
- Other science or EOC networks?
- Are there new structures needed? Can this be part of the organizations that exist (SCAR and IASC) or something new need to be created (would they use the recommendation)?
  - What partners or things are essential to keep things moving forward, and what are the resources needed to keep that going.
  - Move quickly on networks needs, so they can be sustained before the networks dissolve.

**WHY WAS IPY SPECIAL?**

- Do we have the scope or data to say this was different from other science campaigns?
- As a science program, how was the EOC levels compared to other science campaigns?
- Branding of IPY- this helped set it apart from others, people want to be part of something

**EOC Communication Partnership Toolbox:**

Tools based on the audience
Consult

Each project/program should have a web presence (site, FB, blog)
- Plain language, easy to use
- Accessible, from a global perspective
- Contact information
- Updated regularly

**Networks**

- Multiple kinds of international networks (media, teacher, etc)
- We have these already and how do we maintain those networks
- Task: Define the networks and the tasks that need to be done to sustain them so that someone can volunteer to maintain the network in the future – if it needs to be
- Maintain the networks that were created during the IPY?
- Do networks stay together all the time? Is there is a reason for them to be together?
- Does synergy maintain itself and its networks due to the nature of the work? Does there have to be a shared task?
- Is Montreal the test case? Will the networks benefit anyone by going until this time?
- Does someone else see value in keeping the network? Are we too interconnected as EOC professionals?
- PolarTeacher's network- will teachers get notices about opportunities
- Kristin Timm – to test out the IPY Teachers group – ask a few questions about the network – does it morph from a Google group or Facebook or what?
- Are we too close to the administration of the group to know if the network is still useful?
- Would it be of any benefit for them to have an overarching home?
- IPY showed how easy it is to establish networks which is an important lesson to share with other international science programmes

**Capacity Building**

- This is how you invest in your scientists to ensure that EOC is carried forward
- Formal & informal
- Capacity building in EOC – more than one thing
- Use of the PRB for building Education capacity

**EOC Group**

- SCAR and IASC, not interested in hosting the IPY EOC activities

- What will happen to this?

**Identify the factors and mechanisms by which IPY successfully stimulated and inspired the enthusiastic involvement of early career and future scientists:**

**APECS History:**
- Aspect that was seriously taken- and a task that people really did
- Taken seriously from the beginning
- There were some young scientists and was from the beginning a bit confused, and two organizations with enthusiasm
- The two put a lot of effort to bring them together as one, which was APECS
- Find the right people to do the job and move it
- Young researcher Involvement came from the young researchers, and was not mandated by the senior scientists
- Youth steering committee- leaders of that group steered it towards leaders doing EOC, but saw the need to do serious career development too- and this was where APECS formed
- For about 9 months, there were two groups, and then the IPY meeting Serla brought both groups together and the Youth Steering Committee would merge under APECS
- National YSC contacts became the national contacts
- Most of those YSC groups have died by now mainly because they were just doing some outreach and did not plan for future turnover or have things that directly benefited young researchers
- UKPN has been in existence the whole time, and they go up and down
- Dave and Rhian convinced the committee continuously that there are young scientists that need to get involved
- This issue rattles around- getting young scientists involved, but do big groups know how?
- SCAR has APECS members in groups and projects, and have APECS members in project planning committees
- How do you convince the existing people that early career people should be engaged at some level- to produce balanced committees?
- Motivated in the kind of work?
- Legacy of the IPY, recommendations looking at APECS role?

- Too much work for one person- so if we make recommendations, people need to be paid to do this!
- Role of APECS is not just organization management, but also mentoring is needed
- These organizations start and come and go quickly- leadership needs to turn over frequently – but held together by a coordinator
- Been a struggle to find funding for APECS- 1.5 years of funding left
- Admin is good investment- need people to organize volunteers
- Mentor support at the top, but grassroots at the bottom
- Close interaction between IPY/ and APECS helped each other
- Career development
- What happened in the past IPY and didn't work?
- So getting people involved in a different way
- Member benefits
- Convincing people that APECS people need to have roles- constant support and endorsement and involvement
- The sense of belonging from the IPY
- IPY Field school
- ACUNS conference
- Inclusiveness of membership
- Involvement of senior researchers all along- buy in from the top and the bottom
- Good partners! Arctic Portal supporting website
- Engaged existing partners- it was something new, but it relied on other existing networks
- Have a Norway ☺
- Does this work at a disciplinary level? APECS is good because it is interdisciplinary- so there is a relevant place for many types of people and professionals
- Movement towards the new way science is funded and done- interdisciplinary – so we need people who can work across disciplines
- Get the international experience as an early career researcher- how does this jump start your career?
- Early on mentality of working across nations and niches

- These things make APECS unique as a group- so can the model be replicated?
- Other groups- are they effective? Not seeing them succeeding outside APECS
- Rallying Point! POLAR!
- Cant mandate people to be involved, but you can invite them to take part in the process at a real level on large scale planning activities
- Activities at major conferences- get together in smaller group settings, in conjunction with conferences
- Facilitate networking on a smaller scale, safe environment

**Provide guidance on the incorporation of early career researchers in large-scale science planning and research:**
- Smaller scale efforts, but still need coordination
- Arctic net – have student days as part of conferences – but has a finite end after 14 years
- Plan from the beginning, and incorporate from the beginning- ask the ECR what they want in that student association and make it an integral part
- student days- only time when the students give presentations- the grad students need to be integrated with the senior people through the rest of the conference: ie students shouldn't just be presenting their research to other students – they should be part of the overall science programme sessions
- about 70% of apecs people are phd students
- masters students and post docs also
- recruitment- why do people join apecs- how do they hear about the program?
- Getting new people?
- Positions funded and not being filled- but they are very specific and you need to find the exact person that meets that need.
- Was there greater support for graduate students in nations during the IPY?
- Motivations of the new generation?
- Working in the polar regions creates a special bond

**For Improvement:**

- Hit some audiences well, but whole other networks that are not being reached
- Why are some people not hearing about APECS
- Everyone who joins is sold on the idea
- But how do you get the word out, above word of mouth
- Difficult to get through to some countries
- Scientists are not marketing people
- Engage communications people and directors at the supporting institutions, get buy in from the top
- Could be more exchange programs- or means to get international travel - to do this is very hard
- Provide seed money
- Transfer money is a challenge
- Engage partners that provide money and in kind support
- Its not all on the head of APECS- get feedback from the PI's or mentors- what should they have done or could have done? Could they provide support, mentoring, communication training, recognition for these activities
- Pitfall- APECS should not be the sole organization to do this- we still need the support of the mentors and PI's and stuff – flipside of becoming too efficient
- What role should the polar institutes have in promoting polar careers?
- Target students at the undergraduate level- at this level it lives someplace totally separate from opportunities at the graduate levels
- Missed the undergraduate audience- so we need to have this involved in the future – THIS IS A KEY LESSON LEARNED
- Engage them in engaging others- see diversity in the mentors and role models- prepare early career people to take this role on as they move into their careers
- Role of women and will they stay in the polar careers
- Will legacy of IPY bridge the gap between post doc and career

**Action Items:**
Think about ways to improve- and get this back to APECS.

**E-Mail the group with ideas, thoughts, etc. that come up after the meeting!**

Create a File for Resources for Writing:
- Audio files
- Notes
- Reports
- Summaries

Survey:
- Review by committee next week (All)
- Pilot Survey with some people
- Country contacts
- getting it out far and wide
- send form from several email addresses and computers
- follow up with the people we know, especially the smaller projects

Work on Sections of Report:
- Put notes online, audio online (Kristin)
- TASK TEAMS
- 1: Sandy Zicus, Margarete Pauls, Sandy Shan
- 2: Jacinta Legg, Jennifer Bellman, David Carlson
- 3: Kristin Timm, Kristen Ulstein, Louise Huffman

APECS: Separate yet connected issue
- 4: Jenny Baeseman, David Hik, Mare Pit, Renuka Badhe

Pose questions to the teacher network (Kristin)
Follow up on PI directed ECR

**Timeline:**
**Jennifer will work on the timeline more**
Week of Nov 1: Survey Completed
November 23: Parts 1, 2, 3 – Paragraphs Complete, review, synthesis
Following Week: Call to discuss these paragraphs

Spring: Keep in mind a meeting later depending, if another meeting, would ICSU possibly host it?

- ASSW is in Beijing in March, so could be connected with that