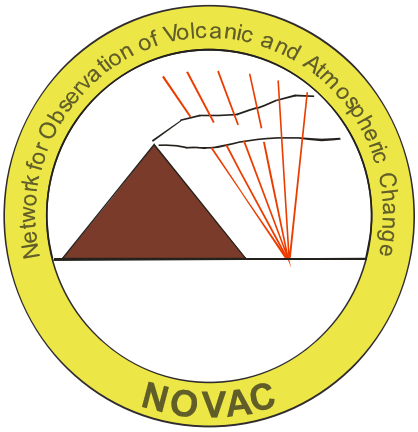
NOVAC

Network for Observation of Volcanic and Atmospheric Change



Specific Targeted Research Project:

Sub-Priority 1.1.6.3 Global Change and Eco-systems
IV.1 Natural Disasters
IV.1.2 Volcanic risk assessment

Project No: 18354

Deliverable 1.2.a

PM from Kick-Off meeting.

2009-05-25

NOVAC Kickoff

NOVAC Kickoff (partial) meeting, Gothenburg, Jan. 11-12, 2006

Agenda:

Wednesday

Administrational
- EU rules for 6th FW
- Consortial agreement (decision making, …)
- Contract

Who does what (presentation of participants)

Afternoon:

Breakout
1) Steering committee meeting
Chalmers, HD, Kiel, Paris, …)
- Data protocol
- Status of additional partners (data protocol, entry fee, rights and responsibilities, etc.)
- Call in Feb. for existing FP 6 projects to invite additional partners from developing countries
  INCO-countries
- Web page
- Complementary partners
  Weather – wind data (ECMWF), →

2) Technical group meeting

- Instrument, Hardware
- Software
- Measurement modes
- Data base structure

Thursday:

Report from technical group meeting
Report from steering committee meeting

Instrumental, (hardware, software) issues

NOVAC Kickoff (partial) meeting, Gothenburg, Jan. 11, 2006

Wednesday

Administrational:

"Description of work": New version will be sent out soon
Only major change: Additional money for Coordination (14K for dissemination of results) taken away from US participants (MIT, U. …), total sum constant.

Instr. Prototype ready: Start +9 Month = 1.10.2005 → 30. 6. 2006
Deployment
Contract with observatories: cannot sell instruments, also no depreciation of cost for EU needed (?)
Next meeting: November 06 in Nicaragua

- EU rules for 6th FW:

"Additional cost" rules, however now changes between categories are possible (however tell coordinator if large changes are made).
Keep time log!
Annual cost statement, **regular audits** (certificate!) or after first 160K spent., but at least once during project.
Note: total allocated to partner vs. total administrated by partner (what he actually receives sometimes including money for other partners)
Reporting: brief reports each 6 month, annual cost statements, annual report
Annual meeting (next in Nicaragua end of Nov. 2006, just before AGU?)

- Consortial agreement (decision making, …)
- Contract

Who does what (presentation of participants):

BIRA, Brussels, Jos van Geffen (for v. Roozendael) → Satellite evaluation
NDSC → NDACC (dropped stratosphere) (Reunion, OHP, Jungfraujoch,)
NOVAC – NDACC (NDSC)
Quality standards for mini-DOAS instruments that match NDACC requirements
Qualified instr. on Reunion island (parallel to NDACC instr.)
Satellite based SO_2 monitoring (TEMIS, PROMOTE) PROMOTE phase 2 will include volcano (SO_2)
GOME-2: receive data with your own receiver.
SO2 – NRT data.

http://www.Temis.nl
http://www.oma.be/BIRA-IASB/Molecules/SO2archive/

IPGP, Paris (Benoît Villemant, Villemant@ipgp.jussieu.fr): Volcanoes: Soufriére on Guadalupe, Piton de Fournaise on Reunion (http://www.fournaise.info/ easy access, several eruptions per year, yet no gas measurements)

IFM-GEOMAR, Kiel, Thor Hansteen: Subduction factory at Nicaragua/Costa Rica
Samples at fumaroles, scale to mini-DOAS (San Cristóbal, Nicaragua, pulsing emission)
Geophysical use of NOVAC data.

Afternoon:

Breakout
1) Steering committee meeting
Chalmers, HD, Kiel, Paris, …)

- **There is internal information that there will probably be a call in Feb. for existing FP 6 projects to invite additional partners from developing countries "INCO-countries".**

Possible partners: 1) Guatemala, INSIVUMEH (INSTITUTO NACIONAL DE SISMOLOGIA, VULCANOLOGÍA, METEOROLOGÍA E HIDROLOGIA)
2) Equador: Have some DOAS-instruments already? (Instituto Geophysico Escuela Polytechnica Nacional)
3) Indonesia: Contact? (ask Clive about VSI, http://www.vsi.esdm.go.id/)
4) Chile: Universidad Catholica de Chile ("Catholica", http://www.puc.cl/)
5) Philipines PHIVOLCS (http://www.phivolcs.dost.gov.ph/)
6) Vanuatu (New Hebrides Islands)

Proposal in response to possible EU call: Instrument, installation, additional management + what is allocated for an Observatory partner in the NOVAC proposal.

- **Data protocol**

See "Data Policy", section 6.2 of "Description of Work" with the following addition: "If data of more than one observatory is used in a study publishing requires consent of the steering committee if the most recent data used is younger than 2 years." The sentence about publishing hard data after the end of project will be replaced by: "… all data will be made public with 2 years delay"

- **Status of additional partners (data protocol, entry fee, rights and responsibilities, etc.):**

Additional partners will have the same rights and obligations (including the data protocol, use of NOVAC instruments and evaluation procedures, etc.) as all other partners. The steering committee decides on the acceptance of additional partners to NOVAC. Additional partners not funded by EU are required to operate instruments and provide all data for at least 5 years (as long as they are functioning).

- **Distribution of money:**

Few 1000 travel money for each partner. Bulk of money distributed between Chalmers and UHEI, since these two partners have large cost with instrument building.

- **Web page:**
  A preliminary web page will be installed by Chalmers based on the NOVAC poster. (some details will be discussed on Thursday).

- **Complementary partners** (partners providing additional services etc.)

Weather – wind data (ECMWF), → Nesting model based on ECMWF data to determine the local wind field around all volcanoes studied within NOVAC by U. Gothenburg (Prof.)
Cost.: For all volcanoes, forever (?): 80K
Ask for alternative sources of these data (ECMWF),

Funding: Cut out of NOVAC budget (e.g. considerably cut WP3.2 + some proportional cuts)
(Swedish) national funding? → Needs to be explored.

Additional mobile DOAS at each site would be desirable. Financing might be possible by savings in the cost of instrument building.

- **Consortium agreement**

Signed by all partners in the project including additional partners whether they receive money from EU or not.
Minor changes in wording regarding cost statements ("… only to be provided by partners receiving money from EU")
Remove 6.3.2, Replace 6.3.3 by suitable data protocol text (see above).
Signature procedure: One signature per page.

2) Technical group meeting

- Instrument, Hardware
- Software
- Measurement modes
- Data base structure

Thursday:

Report from steering committee meeting:
See above
Additional topic: Customs for the many countries, where the instruments are to be sited. Customs, …
Extra money should be reserved for this purpose.
Negotiations with Ocean Optics about prices, discount. Ask whether Chalmers and Heidelberg can be treated as a single customer.

Report from technical group meeting:
New Heidelberg instrument (see Ch. Kern's presentation)
Any point in the sky can be imaged
Instrument diagnose: SO_2 – cell, Holmium or Didymium glass
Direct sun problem
Make measurements with direct sunlight → diffusor plate needed for spectral measurements
→ Position of the sun (or moon) will give orientation of the instrument.
→ no compass needed.
Test HR (Ocean Optics) spectrometer
QE 65000
Lumogen lifetime ??

Instrumental, (hardware, software) issues

NOVAC Measurement modes
→ see presentation
Stratosphere: should be not much conflict with other meas., e.g. do zenith observations at SZA = 85 … 95 degrees.

Software: Do measurement sequences, store spectra on board (SD-Card), transmit spectra after interruption, no spectral evaluation (?).

Perhaps simple SO2 evaluation to allow automatic wind measurements

Software issues (see Christoph's presentation):
Manne's data format: Special compression algorithm (1.5 KB/spectrum ?)
→ Need description, software routines to convert to MFC, etc.

Data base program: Oracle (15K$ per CPU), EUVDB, SQL,
Campus licenses? → Chalmers has one!

Time plan: Proposal: Month 15 (31. 12. 2006).
Comment on list of spectra properties!

NOVAC Web page: see Jan's presentation.

NOTES FROM NOVAC KICK OFF MEETING, QUITO, ECUADOR, JANUARY 24TH, 2006

Participants at the meeting

Bo Galle	Chalmers
Nick Varley	Colima
Simon Carn	University of Maryland
Manuel Diaz	SNET
Wilfried Strauch	INETER
Isaac Farraz	UNAM
Eliecer Duarte	OVSICORI
Claudia Rivera	Chalmers

The meeting starts at 19:25. Bo welcomes everyone to the meeting and proposes an agenda which is reviewed by the participants:

AGENDA
Welcome
Presentation around the table
Overview of the project
Negotiation Process
Administrative Issues
Budget Issues
Webpage
Instrument Development
Steering committee decisions
Other issues
Next Meeting

The participants agree on the agenda, each participant presents him/herself and explains their activities in the project.

Meeting

Bo starts explaining the scientific evaluation the project obtained (29.5 out of 30 points), the reviewers made two principal comments:

a) spread knowledge about the project (make it more public)
b) training, give lectures

Comments are made about negotiations, changes in budget and contract signatures. The official start date of NOVAC is October 1st, 2005 and the European Commission signed the contract on December 16th, 2005. An explanation about the European Commission contract is given as well as where and by whom the partners contracts should be signed. Partners are asked to provide their bank details when providing/sending signed contracts in order to start with money transfer. If possible money will be transferred in advance, before incurring into costs. There is flexibility in the budget as long as the project reaches the goal.

The core of NOVAC is under Risk Assessment from the European Commission point of view, due to this we need to show that risk assessment will be performed. From NOVAC start date, nine months will be used for instrument development, then 1.5 years for installations. Money should be primarily used for research and understanding of the volcano. The project pays for research on local exploitation of data (12 man months), Local impact (2 man months) and Risk Assessment (6 man months). Besides the salary, there is 5000€ for travel. There will be one meeting every year and a final meeting, there is additional 1500€ for travel to courses. Annual meetings will preferably be arranged in Central America in connection to

some other event. Each country part of the project will get two instruments for two volcanoes. The budget for instruments will go to Chalmers and Heidelberg, in case of excess of money from instruments, it will be decided what to do. There is also 20% overhead for all partners (look at page 140 of the NOVAC proposal for further details). It is also advisable for partners to think about how to deal with import procedure of the instruments.

For reporting process to the European Commission, cost statements should be submitted every year, as well as time record in order to demonstrate how time has been spent during the project. Advice is given to partners to talk to their auditors to find out the best procedure in order to demonstrate that money and time have been spent as it should be. Every six months Management Reports need to be submitted, every partner needs to write no more than half a page explaining the activities that have been performed. Every year two written pages per partner are needed for Annual Reports, as well as cost statements.

Instruments are owned by the network and it is up to the network to decide where to use them in case they are stopped to be used by one of the partners. Instruments should not be depreciated, just paid directly.

It is important how to perform decision making in the consortium. A consortium agreement will be sent later, which needs to be signed. If a partner disagrees to sign the agreement, then decisions will be taken by the steering committee and not by the consortium.

20:15 Coffee break

Meeting is reassumed at 20:30. At this stage new partners can join the project at their own costs; they should provide the network with data. The steering committee decides about new partners. According to policies of the European Commission, a certain amount of money should go to INCO countries, and since they have not reached their goal, there is a possibility of a new call to add partners to existing projects. It is being discussed about which new partners could be included, some proposals are: Ecuador, Chile (Lascar, Villarica), Guatemala, Indonesia, Phillipines, Vanuatu. New partners should be part of INCO countries and preferably decide by themselves which volcano they are interested on monitoring; however the volcano should impose a risk for population. It is desirable to include the governmental Institute in charge of Risk Assessment in the country.

Regarding wind data, dual-beam data will not be available or good all the time. A possibility is to use the ECMWF model. In the morning the program goes automatically to the ECMWF and gets weather forecast, the instrument runs and uses ECMWF forecast data for real time evaluations in case the dual-beam data is not available. Next day, real data from ECMWF will be used for post-flux-evaluation when dual-beam data is not available. There is no funding for this proposal since it was not included in the initial budget. About 85000€ are needed which include roughly 1 year man hour. Some funding will tried to be obtained from any national institution (Sweden), otherwise it is possible to discuss with the steering committee if NOVAC can pay for it.

Explanation is given about stage of instrument development and how it works, power requirement (10-12 W). Data will be sent to the observatory, evaluated it in real time and sent over internet. Right now we are looking into different alternatives for spectrometers. The weakest (weather related) part of the system is probably the spectrometer.

E. Duarte asks to take into account other points such as vandalism, transmission limitations, weather, lightning, humidity, data center (this point has been already taken care of) and secondary salaries. Explanation is given that maintenance of instruments is not covered by NOVAC, the observatories should pay themselves for this. Instruments can be insured if wished by the partners.

M. Diaz leaves around 21:00.

In order to accomplish writing of reports in the easiest way, partners will be provided with templates and enough time and reminders to have the reports on time. N. Varley asks how issues will be handled in Mexico regarding writing of reports. Bo suggests that it is up to H. Delgado and N. Varley to arrange about this issue.

Finally the First Annual Meeting is discussed. It should be held within the first three months after each year. It should be decided before summer where and when the meeting will be held. There are two suggestions: first week of November in Mexico or last week of November in Nicaragua in connection with AGU Meeting.

The NOVAC webpage is in process.

The meeting is declared finished at 21:25.