

EISCAT Scientific Association  
Registered as a Swedish non-profit organisation  
Organisation number: 897300-2549

Annual report for the financial year 2013-01-01 – 2013-12-31

The EISCAT Council and the Director for the Association submits herewith the annual report for 2013.

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## **ADMINISTRATION REPORT**

### **Ownership, organisation and objective**

The EISCAT Scientific Association was established in 1975 through an agreement between six European organisations. Japan joined in 1996 and the Peoples Republic of China in 2007.

The EISCAT Associates at 2013-12-31 are: China Research Institute of Radiowave Propagation (Peoples Republic of China), National Institute of Polar Research (Japan), Natural Environment Research Council (United Kingdom of Great Britain and Northern Ireland), Norges forskningsråd (Norway), Solar-Terrestrial Environment Laboratory, Nagoya University (Japan), Suomen Akatemia (Finland), and Vetenskapsrådet (Sweden).

The now running EISCAT Agreement came into force 2007-01-01, with all Associates making long term funding commitments to the Association. The Association has its formal seat in Kiruna, Sweden, and is registered as a non-profit organisation.

The aim of the Association is to make significant progress in the understanding of physical processes in the high latitude atmosphere by means of experimental programmes generally conducted using the incoherent scatter radar technique, which may be carried out as part of wider international projects. For this purpose, the Association has developed, constructed, and now operates, a number of radar facilities at high latitudes. At present, these comprise a system of stations at Tromsø (Norway), Kiruna (Sweden), Sodankylä (Finland), and Longyearbyen (Svalbard).

The Association is fully funded by the Associates but additional operations may also be funded by short term additional contributions from both Associate and non-Associate bodies. Depending on the available funding, scientific priorities and operational targets are adjusted on an annual basis.

The EISCAT Council is charged with the overall administration and supervision of the Association's activities. The Council appoints a Director, who is responsible for the daily management and operation of the facilities of the Association.

### **Operation and scientific development**

The EISCAT Radars delivered a full programme of operations for the user community and operated reliably throughout the year with only some interruptions due to equipment or operational problems.

The various EISCAT radars operated for a total of 2 378 accounted hours (2 596 hours in 2012).

Common Programmes amounted to 33% (42%) of the operations. Special Programmes amounted to 45% (42%) and other operations amounted to 22% (16%) of the total hours.

Scientists from Ukraine and Russia paid for the use of the facilities. Totally 316 hours (300 hours) were accounted on behalf of these countries. Both Ukraine and Russia have Affiliate agreements. The introduced Peer-Review Programme attracted several

applications and user groups from Chile, Finland, Germany, Japan, Russia, USA and United Kingdom were granted time, at no cost, on the systems. Peer-Review time amounted to 168 accounted hours (100 hours).

Four EU Framework Programme 7 projects were ongoing at the end of the year: EISCAT\_3D\_2 “EISCAT\_3D: A European three-dimensional imaging radar for atmospheric and geospace research (Preparatory Phase)”, ENVRI “Common Operations of Environmental Research Infrastructures”, ESPAS “Near-Earth Space Data Infrastructure for e-Science” and COOPEUS “Strengthening the cooperation between the US and the EC in the field of environmental research infrastructures”. EISCAT Headquarters is the coordinator of EISCAT\_3D\_2 and partner in the other projects. The bid for a further FP7 project, MISW: “Mitigation of space weather threats to GNSS services”, got acceptance and this project will start 2014-02-01. MISW is funded under FP7-SPACE-2013-1 and will run for 30 months. The EISCAT involvement amounts to 10 staff months.

The “third antenna system on Svalbard with dual mode capabilities” development continued also during 2013. All local permits are now in place but a final approval from the Norwegian government is needed before the EISCAT Council can make a decision how to proceed with the project.

The project: planning of EISCAT\_3D, “planering av EISCAT\_3D”, are now well underway. Specific staff are tied to this project which is funded by a Vetenskapsrådet (Sweden) grant. The planning work during 2013 was much focused on expanding the international consortium that will fund the new infrastructure.

#### **Future operation and scientific development**

All systems are ready for users. These comprise of the EISCAT Svalbard Radar, Heating and the UHF and VHF radars with the possibility to run the VHF in tristatic mode by using the antennas in Kiruna and Sodankylä for reception. The small receive-only array in Kiruna will be used for field-tests in the EISCAT\_3D preparatory phase project. The array will be dismantled after these tests.

#### **The work of the Council and its committees**

The Council had four meetings during the year. The postponed 2012 autumn meeting was held 5 – 6 February 2013 in Beijing, P. R. of China, and an extraordinary follow-on meeting was held 17 April 2013 in Copenhagen, Denmark. The first ordinary 2013 meeting was held at the Research Council in Norway, 27 – 28 May, 2013, under the leadership of the new Chairperson, Prof. Jian Wu. The autumn meeting was held in Leeds, UK, 30 – 31 October, 2013. The Scientific Oversight Committee had two meetings during the year. The spring meeting was held at the National Institute of Polar Research, Tokyo, Japan, under the leadership of Prof. Cesar La Hoz. The autumn meeting was held in Lancaster, UK under the leadership of the new Chairperson, Dr. Yasunobu Ogawa. The Council Advisory Group did not have any meetings this year.

The work at Council and its committees were much related to regular activities, including financial aspects. The extraordinary Council meeting focused primarily on matters relating to the 3rd antenna system on Svalbard project. Council decided in the autumn meeting to have the Associates increase the annual financial contribution with 5%.

### **Budget development during the year**

The 2013 operations ended under the operating target set for the year. The mainland systems were in total on target but the Svalbard radar was used only for 700 hours, 24% less than budgeted. The fault in the Svalbard 32 meter antenna was only resolved in October and this problem contributed to the lack of interest in using the system during 2013.

The overall spend followed well the forecast for the year and the regular income was well on target. Income from project work became better than anticipated.

Council decided to make a large investment by buying a new partial set of klystrons for the Svalbard radar. The basis for the decision came from information that the type of klystron will no longer be produced and that a final last-time order would be honoured only during a short time. Since the Association has financial constraints, an upper monetary limit was set and the Executives were tasked to order either 8 or 10 klystrons depending on the per unit price. After negotiations with the manufacturer, a total of 10 klystrons was ordered with an order total of about 5 MSEK. The delivery is expected summer 2014 and 2.8 MSEK was put in the Capital Operating reserve to cover a part of the total cost. The remainder, 2.2 MSEK, will be drawn from the 2014 operating funds, if possible. If not, the sum will need to come from own reserves. The 10 klystrons will mean that there are enough spares to push the expected lifetime of the Svalbard transmitter system with another 10 to 15 years.

### **The long-term budget plan**

The long-term budget plan is difficult. The 5% increase of the annual contribution will improve the situation. The highest priority is to maintain a reasonable level of operations and to avoid staff complement reductions in the near future. Carrying forward staff and skills is particularly important since the EISCAT\_3D implementation is expected to start within the coming 1-2 years.

### **The result for 2013 and profit/loss handling**

The transfer of funds needed to part-pay the ordered klystrons to Svalbard meant that the year ended in balance.

**PROFIT AND LOSS ACCOUNTS**

in thousands of Swedish Crowns

	Note 1	<b>2013</b>	<b>2012</b>
Associate contributions	Note 2	20 631	22 325
Other operating income		12 194	10 572
		<u>32 825</u>	<u>32 897</u>
Operation costs		-8 692	-7 998
Administration costs		-4 349	-4 716
Personnel costs	Note 3	-18 605	-17 170
Depreciation of fixed assets		-1 079	-1 061
		<u>-32 724</u>	<u>-30 946</u>
<i>Operating profit/loss</i>		<i>100</i>	<i>1 952</i>
Interest income		115	195
Other financial income and cost		366	1 337
Own reserves and funds	Note 4	-1 660	-2 188
		<u>-1 179</u>	<u>-656</u>
<i>Profit/loss after financial items</i>		<i>-1 079</i>	<i>1 295</i>
Appropriations	Note 5	0	-2 356
Transfer from funds invested	Note 6	1 079	1 061
		<u>1 079</u>	<u>-1 295</u>
<i>Net profit/loss for the year</i>		<i>0</i>	<i>0</i>

**BALANCE SHEET**

in thousands of Swedish Crowns

		<b>2013</b>	<b>2012</b>
<b>ASSETS</b>			
<u>Fixed assets</u>			
<i>Tangible fixed assets</i>	Note 7		
Buildings		2 662	2 895
Radar systems		651	742
Equipment and tools		1 827	1 759
		<hr/> 5 140	<hr/> 5 396
<u>Current assets</u>			
Receivables		8 865	3 392
Prepayments and accrued income	Note 8	5 296	5 578
Cash at bank and in hand	Note 9	30 631	33 148
		<hr/> 44 792	<hr/> 42 117
<i>Total assets</i>		49 932	47 513
<b>CAPITAL AND LIABILITIES</b>			
<u>Capital</u>			
Funds invested	Note 10	5 140	5 396
Funds held on reserve	Note 11	21 862	21 024
		<hr/> 27 002	<hr/> 26 420
<u>Current liabilities</u>			
Liabilities, trade	Note 12	22 530	20 326
Provisions	Note 13	0	429
Other liabilities		400	339
		<hr/> 22 930	<hr/> 21 093
<i>Total capital and liabilities</i>		49 932	47 513
<i>Pledged assets</i>		<i>none</i>	<i>none</i>
<i>Contingent liabilities</i>		<i>none</i>	<i>none</i>

**STATEMENT OF CASH FLOWS**

in thousands of Swedish Crowns

	<b>2013</b>	<b>2012</b>
<u>Operating activities</u>		
Operating result before financial items	100	1 952
Transfer from funds invested	1 079	1 061
Interest received	115	195
Currency exchange rate changes	341	1 283
Extra ordinary income and cost	26	54
Increase/decrease of receivables	-5 473	-957
Increase/decrease of prepayments and accrued income	282	-3 376
Increase/decrease of creditors and liabilities	1 837	9 580
<i>Cash flow from operations</i>	<i>-1 694</i>	<i>9 791</i>
<u>Investment activities</u>		
Investments in tangible assets	-823	-810
<i>Cash flow from investment activities</i>	<i>-823</i>	<i>-810</i>
<i>Cash flow for the year</i>	<i>-2 517</i>	<i>8 982</i>
<i>Liquid assets at the beginning of the year</i>	<i>33 148</i>	<i>24 166</i>
<i>Liquid assets at the end of the year</i>	<i>30 631</i>	<i>33 148</i>

## NOTES

2013 2012

**Note 1 Accounting principles**

The accounting and valuation principles applied are consistent with the provisions of the Swedish Annual Accounts Act and generally accepted accounting principles (bokföringsnämnden allmänna råd och vägledningar).

All amounts are in thousands of Swedish kronor (SEK) unless otherwise stated.

*Receivables*

Receivables are stated at the amounts estimated to be received, based on individual assessment.

*Receivables and payables in foreign currencies*

Receivables and payables in foreign currencies are valued at the closing day rate. Where hedging measures have been used, such as forwarding contracts, the agreed exchange rate is applied. Gains and losses relating to operations are accounted for under other financial income and cost.

*Bank accounts in foreign currencies*

Bank balances in foreign currencies are valued at the closing day rate.

*Fixed assets*

Tangible fixed assets are stated at their original acquisition values after deduction of depreciation according to plan. Assets are depreciated systematically over their estimated useful lives. The following periods of depreciation are applied: Buildings 5 - 50 years, Radar systems 3 - 20 years and Equipment and tools 1 - 5 years.

**Note 2 Associate contributions**

The Associates contributed to the operation during the year in accordance with the agreement. The commitments are in local currencies. The received contributions have been accounted in SEK.

	<u>2013</u>
CRIRP (P. R. of China)	3 053
NIPR (Japan)	1 385
RCN (Norway)	5 435
SA (Finland)	3 060
NERC (United Kingdom)	2 027
VR (Sweden)	5 670
	<u>20 631</u>

Accumulated contributions status as of 2013-12-31

	<u>1976 - 2013</u>
Previous Associates	382 168
CRIRP (P. R. of China)	22 374
NIPR (Japan)	73 537
RCN (Norway)	156 554
SA (Finland)	71 504
NERC (United Kingdom)	226 280
VR (Sweden)	129 899
	<u>1 062 316</u>

**Note 3 Personnel costs and average number of employees**

The Association employs directly the Headquarters staff, currently about eight positions, including the Director. The Headquarters is located in Kiruna, Sweden. The personnel working at the Kiruna (Sweden), Sodankylä (Finland), Svalbard and Tromsø (Norway) sites are not employed by the Association. Instead, the personnel are provided via site contracts by the Swedish Institute of Space Physics (Kiruna site staff), Oulu University (Sodankylä staff) and Tromsø University (Tromsø and Svalbard staff). The Association refunds all expenses related to the provided staff, as well as an additional overhead.

*Personnel costs in total*

Salaries and emoluments paid to the Director	1 552	1 385
Other personnel, employed and provided via site contracts	11 619	11 067
Social security contributions amounted to of which for pension costs	4 826	4 192
	2 349	2 026

The new Director, Dr. Craig Heinselman, started his time-limited employment 2013-01-01. His employment contract with Council is for up to three years.

Of the pension costs, 270 kSEK (354 kSEK) relates to the Director. He and all other directly employed staff are included in ITP like occupational pension plans. For the personnel provided via site contracts, the pension plans are handled by their respective employer.

The members of the board (EISCAT Council) and members of committees, who represents Associates, do not receive remunerations from the Association. Travel expenses in connection with Council and committee meetings are normally covered by the Associates. For the Council Advisory Group, the Association cover meeting and travel costs.

*Salaries and emoluments and average number of staff per country*

<i>Finland</i>		
Salaries and emoluments	585	592
Average number of staff - men and women	1 + 0	1 + 0
<i>Norway (including Svalbard)</i>		
Salaries and emoluments	5 173	5 971
Average number of staff - men and women	8 + 0	9 + 0
<i>Sweden</i>		
Salaries and emoluments	7 414	5 890
Average number of staff - men and women	8 + 2	7 + 2

*Members of the board and Directors at year-end - men and women*

The board consist of delegations from every Associate country each having a Delegate (formal member) and up to two Representatives.

Board members (EISCAT Council)	11 + 3	11 + 3
Directors	1 + 0	1 + 0

**Note 4 Own reserves and funds**

The funds for the purchase of ten new klystrons to the Svalbard radar (totally 462 kGBP or about 5 MSEK), to be delivered in 2014, will be drawn from operating funds in 2013 and 2014. For this year, 2 833 kSEK was set aside in the Capital Operating reserve for this funding.

Capital Operating reserve		
Transfer to the reserve	-826	-941
Transfer to the reserve (additional)	-2 833	0
Transfer from the reserve	792	790
Investments made	-823	-810
Spare parts reserve		
Transfer to the reserve	-10	-19
Transfer from the reserve	0	29

	<b>2013</b>	<b>2012</b>		<b>2013</b>	<b>2012</b>
Surplus fund					
Transfer from the fund	2 040	0	Prepaid rents	105	104
Transfer to the fund	0	-1 237	Prepaid insurances	531	533
<i>Sum own reserves and funds</i>	<i>-1 660</i>	<i>-2 188</i>	Accrued income, COOPEUS project	341	63
<b>Note 5 Appropriations</b>			Accrued income, EISCAT_3D_2 project	706	2 777
The outcome for this year was balanced. The 2012 outcome resulted in a surplus (2 356 kSEK), which was transferred to the surplus fund.			Accrued income, ENVRI project	156	58
			Accrued income, ESPAS project	167	215
			Accrued income, VR-PG project	3 185	110
			Other items	106	1 717
				<hr/> 5 296	<hr/> 5 578
<b>Note 6 Transfer from funds invested</b>			<b>Note 9 Bank balances status</b>		
The depreciation cost is covered by funds from Capital - funds invested			Nordea	30 631	33 147
			Cash in hand	0	1
<b>Note 7 Tangible fixed assets</b>				<hr/> 30 631	<hr/> 33 148
Changes in tangible fixed assets during 2013.			<b>Note 10 Funds invested status</b>		
Buildings			Buildings	2 662	2 895
Opening acquisition value	42 428	42 428	Radar Systems	651	742
Acquisitions during the year	0	0	Equipment and Tools	1 827	1 759
Disposals during the year	-5	0		<hr/> 5 140	<hr/> 5 396
Closing acquisition value	42 424	42 428	<b>Note 11 Funds held on reserve</b>		
Opening accumulated depreciation	-39 533	-39 234	Both investments and spare parts purchases were less than budgeted. Both actions were budget neutral since the differences were covered by reserve transfers. Funds for part-paying the delivery of ten klystrons for Svalbard were added to the Capital Operating reserve.		
Depreciations during the year	-234	-299	Capital operating reserve	5 070	2 203
Disposals during the year	5	0	Equipment repair fund	754	754
Closing accumulated depreciation	-39 762	-39 533	Investment fund	7 971	7 971
Closing residual value	2 662	2 895	Restructuring reserve	4 101	4 101
Radar systems			Spare parts reserve	149	139
Opening acquisition value	244 693	244 693	Surplus fund	3 815	5 856
Acquisitions during the year	0	0		<hr/> 21 862	<hr/> 21 024
Disposals during the year	0	0	<b>Note 12 Liabilities, trade</b>		
Closing acquisition value	244 693	244 693	Four projects financed by EU's European Commission through the Framework Programme 7 scheme and one project financed through Vetenskapsrådet are ongoing. All projects work with prefinancing. The prefinancing is kept as liability until the project has ended and been financially concluded. The guarantee fund is kept as contingency by the Commission for the EISCAT_3D_2 project, which EISCAT is the Co-ordinator of. The guarantee fund will be released after the end of the project, 2014-09-30.		
Opening accumulated depreciation	-243 952	-243 861	COOPEUS prefinancing	1 632	1 581
Depreciations during the year	-90	-90	EISCAT_3D_2 guarantee fund, whole project	1 991	1 929
Disposals during the year	0	0	EISCAT_3D_2 prefinancing	5 282	4 881
Closing accumulated depreciation	-244 042	-243 952	ENVRI prefinancing	536	519
Closing residual value	651	742	ESPAS prefinancing	2 513	2 408
Equipment and tools			VR-PG prefinancing	7 000	3 500
Opening acquisition value	31 354	33 459	Other prefinancing	0	2 134
Acquisitions during the year	823	810	Liabilities, trade	3 577	3 374
Disposals during the year	450	2 915		<hr/> 22 530	<hr/> 20 326
Closing acquisition value	31 726	31 354	<b>Note 13 Provisions</b>		
Opening accumulated depreciation	-29 595	-31 838	Provisions	0	429
Depreciations during the year	-755	-672		<hr/> 0	<hr/> 429
Disposals during the year	450	2 915			
Closing accumulated depreciation	-29 899	-29 595			
Closing residual value	1 827	1 759			
<i>Sum tangible fixed assets</i>	<i>5 140</i>	<i>5 396</i>			
<b>Note 8 Prepayments and accrued income</b>					
Resources in staff and direct costs spent in the now four plus one (EU and VR funded) ongoing projects are covered by accrued income until settled by periodic report claims. Periodic reports are due at various times. For 2013, both EISCAT_3D_2 and ESPAS had second period reporting and ENVRI had its first periodic report.					

Nagoya 2014-06-10



Dr. Tomas Andersson



Prof. Qing-sheng Dong



Dr. Mervyn Freeman



Dr. Bjørn Jacobsen



Dr. Hiroshi Miyaoka



Dr. Kati Sulonen



Dr. Craig Heinselman  
Director

Our audit report was issued on 2014-06-18



Mrs. Annika Wedin  
Authorised Public Accountant



## Audit report

### To the council of EISCAT Scientific Association, Corporate Identity Number 897300-2549

#### Report on the annual accounts

I have audited the annual accounts of EISCAT Scientific Association for the year 2013.

#### *Responsibilities of the council and the director for the annual accounts*

The council and the director are responsible for the preparation and fair presentation of the annual accounts in accordance with the Annual Accounts Act, and for such internal control as the council and the director determine is necessary to enable the preparation of annual accounts that are free from material misstatement, whether due to fraud or error.

#### *Auditor's responsibility*

My responsibility is to express an opinion on the annual accounts based on my audit. I conducted my audit in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the annual accounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the annual accounts. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the annual accounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the association's preparation and fair presentation of the annual accounts, in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the association's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the council and the director, as well as evaluating the overall presentation of the annual accounts.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

#### *Opinion*

In my opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the association as of 31 December 2013 and its financial performance and its cash flows for the year then ended in accordance with the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts.

#### Report on other legal and regulatory requirements

In addition to my audit of the annual accounts, I have also audited the administration of the council and the director of EISCAT Scientific Association for the year 2013.

#### *Responsibilities of the council and the director*

The council and the director are responsible for the administration.

#### *Auditor's responsibility*

My responsibility is to express an opinion with reasonable assurance on the administration based on my audit. I conducted the audit in accordance with generally accepted auditing standards in Sweden.

As a basis for my opinion on the council and the director's administration, in addition to my audit of the annual accounts, I examined significant decisions, actions taken and circumstances of the association in order to determine whether any member of the council or the director have undertaken any action or is guilty of negligence which may entail a liability for damages. I also examined whether any council member or the director has, in any other way, acted in contravention of the Annual Accounts Act or the statutes.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

#### *Opinion*

The council and the director have not acted in contravention of the statutes.

Gävle, 18 June 2014

Annika Wedin  
Authorized Public Accountant