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

Annual report for the financial year 2006-01-01 – 2006-12-31

The EISCAT Council and the Director for the Association herewith submits the annual report for 2006.

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# **ADMINISTRATION REPORT**

## Ownership, organisation and objective

The EISCAT Scientific Association was established in 1975 through an agreement between the Centre National de la Recherche Scientifique (France), the Max Planck Gesellschaft (Germany), Vetenskapsrådet (Sweden), Norges forskningsråd (Norway), the Particle Physics and Astronomy Research Council (United Kingdom) and Suomen Akatemia (Finland). In 1996, the National Institute of Polar Research (Japan) joined the Association. These organisations are called EISCAT Associates. 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. Depending on the available funding, scientific priorities and operational targets are adjusted on an annual basis.

The Association is governed by the EISCAT Agreement, Statutes, Financial Rules, and the Rules for the Management of Scientific Programmes.

The EISCAT Council is charged with the overall administration and supervision of the Association's activities. The Council consists of a Delegation of each Associate with a maximum of three members from each Associate. The Council appoints a Director, who is responsible for the daily management and operation of the facilities of the Association, for signing negotiable instruments, cheques and contracts entered into in the Association's name, and executing the Council's decisions, subject to such rules as may be laid down by the Council. The Council, in consultation with the Director, also selects the senior management team.

Two committees support the EISCAT Council, one handles scientific issues, and the other covers administrative and financial matters.

The current Director is Professor Anthony P. van Eyken. His employment contract with the Council will run until December 31, 2008.

## **Operation and scientific development**

The EISCAT Radars operated reliably throughout the year with only minor interruptions.

The handling of the failed VHF klystron continued during the year; after some further deliberation, it was finally decided to authorise CPI to complete the attempted repair and the tube was returned from the factory in November. The final repair cost totalled 1 225 kSEK, whereof the final 436 kSEK was paid this year. At year end, the tube was safely stored at the

EISCAT Tromsø site but high current flow to the vacuum pumps indicate a continuing vacuum leak which must be corrected before any attempt to install and test the tube.

The various radars operated for a total of 3 845 accounted hours (3 612 hours in 2005), compared with an adjusted budgeted target of 3 700 hours. All facilities operated close to their individual targets, with the mainland radars being relatively more heavily used than the EISCAT Svalbard Radar in preparation for the planned reductions in time available on the two mainland incoherent scatter radars from 2007.

Common Programmes amounted to 44% (60%) of the operations while the remaining 56% (40%) were Special Programme experiments conducted by scientists from the countries of the Association.

A contract, under the European Union's Sixth Framework Programme initiative - Structuring the European Research Area – Design Studies, continued throughout the year. The project, named EISCAT\_3D, is a four-year design study to develop a replacement for the two mainland incoherent scatter radars. The project started 2005-05-01. EISCAT acts as the Coordinator and is also a substantial partner in the project where about 45% of the total estimated work effort is within EISCAT. Other partners are the University of Tromsø, Luleå University of Technology and the Rutherford Appleton Laboratory.

A further contract with the European Union, also within the Sixth Framework Programme initiative, Structuring the European Research Area – Transnational Access, was signed in May with a retroactive start date at the beginning of the year. This contract will allow scientists in countries currently not associated with EISCAT to use the mainland infrastructure. The first round of applications were accepted in the autumn, and, after an external refereeing process, a support award was approved. The corresponding expenditure will take place in 2007.

The contract with the European Space Agency concerning the project "Small-Sized Space Debris Data Collection with EISCAT Radar Facilities" terminated, at least temporarily at the end of 2005. However, EISCAT continued to make the corresponding observations and the results were presented at a major space debris workshop during the year. The optional continuation phase had not been initiated at the end of the year.

## Future operation and scientific development

During the coming year, EISCAT will continue to support the wide range of existing and new programmes proposed by the various Associates' scientific communities, including the hosting of user-supplied equipment. However, the reduced level of Associate contributions will be reflected in a reduction in the planned operating levels, particularly of the mainland UHF and VHF radars.

In addition to continuing to support the Associates' scientific communities, supporting users related to the Transnational Access programme, and participating in the World-days' schedule, much effort will be put into the ongoing Design Study. Both the Transnational Access programme and the Design Study will continue into 2009.

The new EISCAT Agreement has been signed by all parties and comes into force 2007-01-01. The funding level for 2007 and onwards will be lower than today. In collaboration with the host institutions, the complement levels will be reduced from 2007-01-01 and new host

agreements will be established thereafter. Work in 2007 will continue to adapt the Association, and particularly the mainland operations to the new Agreement and funding levels. The estimated operating hours for 2007 will be of the order of 2 500 hours but planning is in hand to conduct quasi-continuous operation of the EISCAT Svalbard Radar during the International Polar Year (which begins 2007-03-01), partial funding for this was already allocated by the Research Council of Norway during the year.

Negotiations with several potential new Associates will continue.

Additional resources related to both new Associates and individual contracts, such as those with the EU, will allow the operational hours to be increased.

# The work of the Council and its committees

The Council held two ordinary meetings under the leadership of the Chairman, Professor Asgeir Brekke. The supporting committees, the Administrative and Finance Committee and the Scientific Advisory Committee both held two meetings each.

In the new agreement, there is no AFC and the role of the SAC has evolved to better represent the needs of the user community. A small new Management Committee will take over much of the role of the AFC as well as developing the detailed management of the Association.

At the November 2006 meeting of the Council, the members appointed to the new, post 2006 Council under the new Agreement formally considered the 2007 budget, brought the new Management Committee into existence, and appointed Professor Ellestad, and Drs Alcaydé, Brooks, and Kauristie, together with the Director, as its first members.

A formal letter was received from the Russian organisation, Roshydromet, in October outlining their formal intention to open negotiations with EISCAT with a view to joining the Association.

## **Budget development during the year**

The 2006 operations followed very well the budgeted level. Two staff positions were deliberately kept vacant all year. Difficulties in filling a scientific support position resulted in yet another full-year vacancy. Other changes, partially related to early implementations within certain headings of the reduced 2007 budget level, resulted in less cost than originally planned.

## The long-term budget plan

In autumn, the 2007 budget and the five years plan was approved by the Council. The longterm budget plan is sound. Funds from EISCAT's restructuring reserve will be used over a period to gradually adapt to the new budget level. Late in the year a new long-term funding commitment was announced, which will make it possible to start rebuilding the operation plans. This work will be visible already from autumn 2007.

## The result for 2006 and the surplus handling

The year was balanced by transferring the surplus, relative to the budget, of 2 683 kSEK to the surplus fund.

# **PROFIT AND LOSS ACCOUNTS**

in thousands of Swedish Crowns

in thousands of Swedish Crowns		
Note	e 1 <b>2006</b>	2005
Associate contributions Note	e 2 32 045	29 489
Other operating income	1 618	1 446
	33 663	30 935
Operation costs	-7 424	-4 791
Administration costs	-4 317	-5 056
Personnel costs Note	e 3 -17 677	-18 301
Depreciation of fixed assets	-14 835	-18 689
	-44 253	-46 838
Operating profit/loss	-10 590	-15 903
Interest income	798	288
Other financial income and cost	203	199
Own reserves and funds Note	-2 563	-1 495
	-1 561	-1 008
Profit/loss after financial items	-12 151	-16 911
Appropriations Note	e 5 -2 683	-1 778
Transfer from funds invested Note	e 6 14 835	18 689
	12 151	16 911
Net profit/loss for the year	0	0

# **BALANCE SHEET**

in thousands of Swedish Crowns	
	2006

2005

# ASSETS

Fixed assets

Tangible fixed assets	Note 7		
Buildings		4 756	7 829
Radar systems		11 480	22 296
Equipment and tools		1 966	2 390
		18 202	32 514
<u>Current assets</u>			
Receivables		1 183	326
Prepayments and accrued income	Note 8	581	511
Cash at bank and in hand	Note 9	28 395	25 238
		30 160	26 074
Total assets		48 362	58 589
CAPITAL AND LIABILITIES			
Capital		17 560	21.051
Funds invested	Note 10	17 568	31 851
Funds held on reserve	Note 11	18 289	14 887
		35 857	46 738
Long term liabilities			
Long term liabilities	Note 12	560	632
Current liabilities			
Liabilities, trade	Note 13	11 377	9 388
Provisions	Note 14	30	673
Other liabilities		539	1 158
		11 945	11 219
Total capital and liabilities		48 362	58 589
Pledged assets		560	632
Contingent liabilities		none	none

# **STATEMENT OF CASH FLOWS**

in thousands of Swedish Crowns		
	2006	2005
Operating activities		
Operating result before financial items	-10 590	-15 903
Transfer from funds invested	14 835	18 689
Interest received	798	288
Currency exchange rate changes	149	199
Extra ordinary income and cost	54	0
Increase/decrease of receivables	-857	142
Increase/decrease of prepayments and accrued income	-71	-290
Increase/decrease of creditors and liabilities	654	4 801
Cash flow from operations	4 973	7 927
Investment activities		
Investments in tangible assets	-1 815	-724
Cash flow from investment activities	-1 815	-724
Cash flow for the year	3 158	7 203
Liquid assets at the beginning of the year	25 238	18 035
Liquid assets at the end of the year	28 395	25 238

#### NOTES

### 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 10 - 50 years, Radar systems 3 - 20 years and Equipment and tools 3 - 5 years.

#### Note 2 Associate contributions

The present Associates contributed to the operation during the year according to a fixed percentage. A new Associate, the China Research Institute of Radiowave Propagation (P. R of China) enters the Association in 2007. The first payment from CRIRP, done already this year, will be used for investments.

		2006
CRIRP (P. R. of China)		2 556
CNRS (France)	23.25%	6 856
MPG (Germany)	23.25%	6 856
NIPR (Japan)	7.00%	2 064
PPARC (United Kingdom)	23.25%	6 856
RCN (Norway)	9.30%	2 742
SA (Finland)	4.65%	1 371
SRC (Sweden)	9.30%	2 742
	100.00%	32 045

Accumulated contributions status as of 2006-12-31

	<u> 1976 - 2006</u>
CRIRP (P. R. of China)	2 556
CNRS (France)	190 074
MPG (Germany)	183 405
NIPR (Japan)	62 563
PPARC (United Kingdom)	202 014
RCN (Norway)	117 346
SA (Finland)	48 249
VR (Sweden)	91 602
	897 807

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

The Association employs directly the Headquarters staff, currently seven positions, including the Directors. The Headquarters is located in Kiruna, Sweden.

The personnel working at the Kiruna (Sweden), Sodankylä (Finland), Svalbard and Tromsö (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 Tromsö University (Tromsö 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 Directors	2 138	2 117
Other personnel, employed and provided via site contracts	10 584	11 098
Social security contributions amounted to	4 352	4 648
of which for pension costs	2 516	2 603

Of the pension costs, 1 026 kSEK (926 kSEK) relates to the Directors. The Directors 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 do not receive remunerations from the Association. Travel expenses in connection with Council and committee meetings are paid by the different Associates and is then usually reimbursed from the Association, excluding the Japanese Associate who pays the travel cost for their own members.

Salaries and emoluments and average number of staff per country

Finland		
Salaries and emoluments	1 568	1 562
Average number of staff - men and women	4 + 0	4 + 0
Norway (including Svalbard)		
Salaries and emoluments	6 919	7 902
Average number of staff - men and women	10 + 3	12 + 3
Sweden		
Salaries and emoluments	4 2 3 4	3 751
Average number of staff - men and women	7 + 1	7 + 1

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

Board members (EISCAT Council)	12 + 5	14 + 3
Directors	2 + 0	2 + 0

### Note 4 Own reserves and funds

Transactions involving own reserves and funds.

Capital Operating reserve Budgeted transfer to the reserve Transfer from the reserve Investments made	-2 119 1 815 -1 844	-534 746 -746
Design study allocation For balancing the four-year project	116	-511
Equipment repair fund VHF klystron repair cost	436	283
Investment fund Transfer CRIRP contribution for later use	-2 556	0

	2006	2005
Spare parts reserve		
Budgeted transfer to the reserve	0	-29
Transfer from the reserve	85	68
Budgeted use of our own funds/reserves Surplus fund transfer	228	504
ESR klystron purchase re-allocation Via the surplus fund for use in 2006	1 277	-1 277
Sum own reserves and funds	-2 563	-1 495

### Note 5 Appropriations

The outcome for this year became a surplus relative to the budget amounting to 2 683 kSEK. The amount has been transferred to the surplus fund. The 2005 outcome resulted in a surplus (1 778 kSEK) and it was transferred to the restructuring reserve.

### Note 6 Transfer from funds invested

The depreciation cost is covered by funds from Capital - funds invested.

### Note 7 Tangible fixed assets

Changes in tangible fixed assets during 2006.

Buildings		
Opening acquisition value	42 204	42 204
Acquisitions during the year	0	0
Disposals during the year	0	0
Closing acquisition value	42 204	42 204
crossing acquisition value	72 207	72 207
Opening accumulated depreciation	-34 375	-31 199
Depreciations during the year	-3 073	-3 175
Disposals during the year	0	0
Closing accumulated depreciation	-37 448	-34 375
Closing residual value	4 756	7 829
Radar systems		
Opening acquisition value	243 624	243 624
Acquisitions during the year	757	0
Disposals during the year	0	0
Closing acquisition value	244 381	243 624
Opening accumulated depreciation	-221 328	-207 784
Depreciations during the year	-11 573	-13 544
Disposals during the year	0	0
Closing accumulated depreciation	-232 901	-221 328
Closing residual value	11 480	22 296
Equipment and tools		
Opening acquisition value	31 491	30 872
Acquisitions during the year	1 058	724
Disposals during the year	-646	-105
Closing acquisition value	31 902	31 491
Opening accumulated depreciation	-29 101	-27 235
Depreciations during the year	-189	-1 970
Disposals during the year	-646	104
Closing accumulated depreciation	-29 936	-29 101
Closing residual value	1 966	2 390
Sum tangible fixed assets	18 202	32 514

# 2006 2005

#### Note 8 Prepayments and accrued income

The main buildings and systems insurance for 2007 was paid in December.

Prepaid rents	85	76
Prepaid insurances	463	401
Other items	34	34
	581	511
Note 9 Bank balances status		
Nordea	28 394	25 237
Cash in hand	1	1
	28 395	25 238
Note 10 Funds invested status		
Buildings	4 122	7 166
Radar Systems	11 480	22 296
Equipment and Tools	1 966	2 390
	17 568	31 851

### Note 11 Funds held on reserve

436 kSEK was drawn from the equipment repair fund for the VHF klystron repair. 1 277 kSEK was used of the surplus fund for the purchase of eight additional klystrons to the Svalbard system (first four budgeted in 2005 but postponed into 2006). 116 kSEK was taken from the External Project Reserve to balance the four-year EISCAT\_3D design study project. The CRIRP contribution, 2 556 kSEK, was transferred to the new Investment fund. The surplus for this year was transferred to the surplus fund.

Capital operating reserve	1 933	1 629
Equipment repair fund	754	1 190
External projects reserve	394	511
Investment fund	2 556	0
Restructuring reserve	9 632	9 632
Spare parts reserve	336	421
Surplus fund	2 683	1 505
	18 289	14 887

#### Note 12 Long term liabilities

Refers to the Husbanken Norway loan concerning the owned flat on Svalbard. The loan is in NOK. 29 kSEK (22 kSEK) was amortized during the year.

#### Note 13 Liabilities, trade

Two EU-contracts are running, the EISCAT\_3D Design Study and the EISCAT\_USERS\_1 Transnational access project. The design study started 2005-05-01. The other project started 2006-01-01. Both projects work with pre-financing. Non released funds are accounted as liabilities.

Liabilities EU, EISCAT_3D pre-financing	3 603	3 7 3 7
Liabilities EU, USERS_1 pre-financing	1 528	0
Other liabilities, trade	6 246	5 651
	11 377	9 388

### Note 14 Provisions

The new EISCAT Agreement states that the Associates will pay for its own delegates attending EISCAT meetings. Associate travel provisions after 2006 will principally therefore no longer be needed.

Associate travel	30	539
Staff travel	0	134
	30	673

Nagoya 2007-05-31

Dr. Tomas Andersson

Prof. Jian Wu for Prof. Qing-sheng Dong



Prof. Ryoichi Fujii Ryoichi Fuji Iuomi Nghi

Prof. Tuomo Nygrén Deputy for Dr. Anna Kalliomäki

Prof. Anthony P. van Eyken Director

Our audit report was issued on 2007-06 - 13

Mrs. Annika Wedin Authorised Public Accountant

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Mr. Robert Barnden Authorised Public Accountant

# Öhrlings PriceWATerhOUsECOOPERS @

# Audit report

## To the council of EISCAT Scientific Association

Corporate identity number 897300-2549

We have audited the annual accounts, the accounting records and the administration of the council and the director of EISCAT Scientific Association for the year 2006. These accounts and the administration of the association and the application of the Annual Accounts Act when preparing the annual accounts are the responsibility of the council and the director. Our responsibility is to express an opinion on the annual accounts and the administration based on our audit.

We conducted our audit in accordance with generally accepted auditing standards in Sweden. Those standards require that we plan and perform the audit to obtain reasonable assurance that the annual accounts are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the accounts. An audit also includes assessing the accounting principles used and their application by the council and the director and significant estimates made by the council and the director when preparing the annual accounts as well as evaluating the overall presentation of information in the annual accounts. As a basis for our opinion concerning discharge from liability, we examined significant decisions, actions taken and circumstances of the association in order to be able to determine the liability, if any, to the council or the director. We 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. We believe that our audit provides a reasonable basis for our opinion set out below.

The annual accounts have been prepared in accordance with the Annual Accounts Act and give a true and fair view of the association's financial position and results of operations in accordance with generally accepted accounting principles in Sweden. The statutory administration report is consistent with the other parts of the annual accounts.

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

Stockholm 2007-06-13

Robert Barnden Authorized Public Accountant

Annika Wedin Authorized Public Accountant