

## 南極条約第7条5に基づく事前通告のための電子情報交換システム（EIES）について（案）

外務省地球環境課

### 1. 背景

(1) 南極条約第7条5は、各締約国に以下の活動についての通報を求めている。

「各締約国は、この条約がその国について効力を生じた時に、他の締約国に対し、次のことについて通報し、その後は、事前に通告を行う。

(a) 自国の船舶又は国民が参加する南極地域向けの又は同地域にあるすべての探検隊及び自国の領域内で組織され、又は同領域から出発するすべての探検隊

(b) 自国の国民が占拠する南極地域におけるすべての基地

(c) 第1条2に定める条件に従って南極地域に送り込むための軍の要員又は備品」

（参考：第1条2＝この条約は、科学的研究のため又はその他の平和的目的のために、軍の要員又は備品の使用を妨げるものではない。）

(2) これに基づき、南極条約協議国会議（ATCM）は2001年に「決議6」を採択し、事前に通報・通告すべき事項をとりまとめた。

(3) その後、通報のための共通フォーマットが「電子情報交換システム(Electronic Information Exchange System: EIES)としてATCMで2008年に合意された。各締約国がフォーマットに必要事項を入力、承認することで通報内容が公開される。

### 2 今回提出する資料

事前報告（Pre-season Information＝2017年～2018年に行う活動の事前の通告。）

ア 活動関連事項（1.1～1.2）

使用予定基地、観測船（しらせ）、観測用航空機、観測用ロケット、保護地域への立入りにつき報告

イ 科学関連事項（2.1）

実施予定の研究及び観測活動

なお、年次報告(Annual Report＝2016年4月～2017年3月に行った活動の事後報告)、常設報告(Permanent Information＝恒久的に設置されている設備などの報告)については、6月の第150回本部総会で承認済み。

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## 2017/2018 Pre-season Information

### 1.1 Operational information

#### 1.1.1 National Expeditions

##### *A. Stations*

Name: Syowa

Type: winter

Location: Higashi-Ongul To, Lützow-Holmbukta

Latitude: 69°00'25" S

Longitude: 39°35'01" E

Max. Population: 130

Medical Facilities: Minimum required surgical operation facilities and dental emergency

Remarks / Description:

Elevation: 28.9 m

Established: January 29, 1957

Major Field Activities: Biological and geophysical observations in Lützow-Holmbukta area

Name: Dome Fuji

Type: Seasonal

Location: On the top of Dronning Maud Land

Latitude: 77°19'01"S

Longitude: 39°42'12"E

Max. Population: 14

Medical Facilities: None

Remarks / Description:

Elevation: 3,810m

Established in January 29, 1995

There are 9 buildings below snow surface. 9 people can be accommodated.

Operating Period: from November to February

Major Field Activities: Glaciological survey

##### *B. Vessels*

Name : R/V Shirase

Country of registry: Japan

Maximum Crew: 179

Maximum Passengers: 80

Remarks: The Indian sector of the Southern Ocean (SO) and SO south of Australia will be visited.

Voyage Departure Date: 2, December, 2017

Voyage Departure Port: Fremantle, Australia

Voyage Arrival Date: 20 March, 18

Voyage Arrival Port: Sydney, Australia

Voyage Purpose : Transportation of cargo and personnel / Support of oceanographic and field observations

Site Name: Lützow-Holmbukta, Kronprins Olav Kyst

### *C. Aircraft*

Type: CH-101

Quantity: 2

Category: Local helicopter flights

Period From: December, 2017

Period To: February, 2018

Remarks: transportation of cargo and personnel / support of field observations

Flight Departure Date: December, 2017

Flight Purpose: Logistics

Type: AS350B2

Quantity: 1

Category: Local helicopter flights

Period From: December, 2017

Period To: February, 2018

Remarks: transportation of cargo and personnel / support of field observations

Flight Departure Date: December, 2017

Flight Purpose: Logistics

### *D. Research Rockets*

(Please see Table 1)

### *E. Military*

None

## **1.1.2 Non-governmental Expeditions**

### *A. Vessel-based Operations*

None

### *B. Land-based Operations*

None

*C. Aircraft Activities*

None

*D. Denial of Authorizations*

None

## **1.2 Visits to Protected Areas**

Area Type: ASPA

Area Number: 141 ('Yukidori Valley', Langhovde, Lützow-Holmbukta)

Permit Number 1710111

Period From: 7 December, 2017

Period To: 31 January, 2019

People Permitted: 73

Purpose: Research and management

Summary of Activities: Research and management

Event Project Name/Number: 59th Japanese Antarctic Research Expedition

## **2.1 Scientific Information**

### **2.1.1 Forward Plans**

(Please see Table 2)

**(END)**

## 2017/2018 Pre-season Information - Research Rocket

### 1.1 Operational information

#### 1.1.1 National Expeditions

##### D. Research Rockets

Location Launch	Date/Period/Frequency	Direction	Max. Altitude	Impact Area	Type	Specifications	Purpose	Project Title/Number
Syowa	Six times in the summer (January or February, 2018)	All directions, depending on wind	30,000 m	Within a radius of 100 km from the site	Rubber balloon	OPC (optical particle counter)	Aerosol measurement	Mechanism of variation in surface condition of the ice sheet and heat and moisture budget in east Antarctica
Syowa	4 times, throughout the year	All directions, depending on wind	30,000 m	Within a radius of 100 km from the site	Rubber balloon	Water vapor sonde	Water vapor measurement	Long-term observation of water vapor in the Antarctic stratosphere
Syowa	Twice daily, throughout the year and up to 4 times during the summer (January or February, 2018)	All directions, depending on wind	30,000 m	Within a radius of 200-300 km from the site	Rubber balloon	Radiosonde	Aerological observation	Meteorological observations
Syowa	1 to 2 times a week, throughout the year	All directions, depending on wind	30,000 m	Within a radius of 200-300 km from the site	Rubber balloon	ECC (Electrochemical Concentration Cell) Type Ozone sonde	Ozone vertical profile measurement	Meteorological observations

## Forward Plans (JARE59)

Project Name/Number:	Discipline: (ドキュメントカテゴリから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を記載。添付はpdfファイルで提出)
<p><b>Research Project (研究費助成)</b></p> <p><b>Prioritized Research Project: Investigation of changes in the Earth system from Antarctica (重点研究費助成: 南極から見る地球システム変動)</b></p> <p>A study on the global atmosphere system based on high-resolution observations of the Antarctic atmosphere</p> <p>南極大気精密観測から探る全球大気システム</p>	Earth and atmospheric sciences - other	Syowa	<p>Name: Masaki Surname: Tsutsumi Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0658 Email: tsutsumi@nipr.ac.jp</p>	Studies of various processes on the global atmospheric environmental change using Antarctic observations with (1) JIPANSY (Plan of Antarctic SYowa MST/IS) radar, a large atmospheric radar and (2) a resonance lidar, which are to be developed in this research period, as well as (3) various instruments such as MF and HF radars, OH spectrometers, Rayleigh lidar, millimeter wave spectrometer etc. operated/developed already during the V/Ilth term.	N	
<p>AJ0901</p> <p>9-J1-S</p> <p>東京大学 佐藤薫教授 堤准教授</p>						
<p>AJ0902</p> <p>9-J2-S</p> <p>北海道大学 青木准教授 田村助教</p>	Climate studies	Lützow-Holmbukta Shirase Glacier Cape Damley	<p>Name: Takeshi Surname: Tamura Job Title or Position: Assistant Professor, NIPR Phone: +81-42-512-0682 Email: tamura.takeshi@nipr.ac.jp</p>	Unmanned observations such as under-ice oceanographic, seafloor and cryospheric observations using ROV/AUVs, geodetic network, observations of ice/ocean motion and deformation using GPS/ GNSS, and oceanographic observations using tethered and moored profiling observation systems. These remote observation techniques will be applied to the new horizons such as Lützow-Holm Bay and Cape Damley regions for the understandings of the mechanisms of different ice-ocean interaction regimes.	N	
<p>AJ0903</p> <p>9-J3-SW</p> <p>川村准教授</p>	Environmental sciences	Syowa station, Dome Fuji, Droning Maud Land	<p>Name: Kenji Surname: Kawamura Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0684 Email: kawamura@nipr.ac.jp</p>	Inland traverse from S16 to Dome Fuji. Snow observations and sampling along the route and in the vicinity of Dome Fuji station. Around Dome Fuji, ice radar and other glaciological/meteorological observations. Transportation of the second Dome Fuji ice core samples on the return trip.	N	

EIES用番号 対応教員	Project Name/Number:	Discipline: (ドキュメントから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を 記載。添付はpdfファイル で提出)
AP0901 9-P01-SW 信州大学 宗像教授	Space weather study using cosmic ray observations at Syowa Station in Antarctica 南極昭和基地での宇宙線観測による宇宙天気研究の新展開	Astrophysics	Syowa Station	Name: Kazuki Surname: Munakata Job Title or Position: Professor, Shinshu University Phone: +81-263-47-2463 Email: kmunak00@shinshu-u.ac.jp	Install a pair of neutron monitor and muon detector and start new observations of cosmic rays at Syowa base. These observations will be used for better understanding the space weather, utilizing a unique location in Antarctica for cross-calibrating the different responses of two types of detectors to the variations of primary cosmic rays and the atmosphere.	N	N
AP0902 9-P02-SW 門倉教授	Large area network observation of auroral phenomena using unmanned system 無人システムを利用したオーロラ現象の広域ネットワーク観測	Earth and atmospheric sciences - other	Syowa Station to Amundsen Bay	Name: Akira Surname: Kadokura Job Title or Position: Professor, NIPR Phone: +81-42-512-0663 Email: kadokura@nipr.ac.jp	Low-power autonomous aurora observation system will be moved from Syowa Station to Amundsen Bay, and maintained.	N	N
AP0904 9-P04-SW 行松准教授	Study on polar upper atmosphere in possible grand minimum period and inner magnetosphere dynamics with SuperDARN radars SuperDARNレーダーを中心としたグラントミニマム期における極域超高層大気と内部磁気圏のダイナミクスの研究	Earth and atmospheric sciences - other	Syowa station Dome Fuji, Zhongshan South Pole stations	Name: Akira Sessai Surname: Yukimatu Job Title or Position: Associate Professor, NIPR Phone: Email:	With SENSU SuperDARN HF radars at Syowa station and auroral all-sky imager network at Dome Fuji, Zhongshan and South Pole stations under FOVs of the SENSU radars, simultaneous observation will be conducted to try to reveal M1 (magnetosphere-ionosphere) coupling associated with meso-scale (10 - several 100km) aurora in cusp, polar cap and aurora regions, and cross-scale coupling associated with these aurora and ionospheric disturbances, e.g., break-up type and pulsating aurora and surrounding 2-D electric field structure, and relationship between aurora streamer and initiation of auroral brightening.	N	N
AP0905 9-P05-W 北海道大学 大学院 佐藤准教授 門倉教授	Global lightning activities and atmospheric disturbances derived from electromagnetic wave and electric field measurements 電磁波・大気電場観測が明らかにする全球雷活動と大気変動	Earth and atmospheric sciences - other	Nishi-Ongul To (Island) Higashi-Ongul To (Island)	Name: Mitsuru Surname: Sato Job Title or Position: Associate Professor, Faculty of Science, Hokkaido University Phone: +81-14-706-2763 Email: msato@ep.sci.hokudai.ac.jp	Continuous measurements of ELF electromagnetic waves in the frequency range of 1-100Hz and atmospheric DC electric field will be carried out. At Nishi-Ongul To (Island), two horizontal induction magnetometer were installed for the ELF measurement, while the field mill sensor was installed at Higashi-Ongul To (Island) for atmospheric electric field measurement. From these data, it is possible to monitor global activities of lightning discharge and global electric circuit.	N	N

Project Name/Number:	Discipline: (ドキュメントカテゴリから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を記載。添付はpdfファイルで提出)
AP0907 EIES担当者 対応教員 9-P107-S 東京海洋大 学 北出教授 田村准教授	Oceanography	110°E line, off Vincennes Bay	Name: Yujiro Surname: Kihade Job Title or Position: Professor, Tokyo University of Marine Science and Technology Email: ykiade@kaiyodai.ac.jp	Moboring observations with MicroCat (CT- meter) and Hydrographic survey in the bottom water production area.		N
AP0908 富川准教授	Atmospheric sciences	Syowa	Name: Yoshihiro Surname: Tomikawa Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0660 Email: tomikawa@nipr.ac.jp	Balloon-borne observations of water vapor in the stratosphere will be performed at Syowa Station in 2017 together with ozonesonde, aerosol sonde, PANSY radar, Rayleigh lidar, and micro-pulse lidar observations.		N
AP0910 福岡大 学 林教授 塩原准教授	Atmospheric sciences	Along cruise track of RV Shirase Syowa	Name: Masahiko Surname: Hayashi Job Title or Position: Professor, Faculty of Science, Fukuoka University Phone: +81-871-6631 ex.6168 Email: mhayashi@fukuoka-u.ac.jp	Observation of optical property and aerosol concentration along cruise track of RV Shirase by ship borne instruments, skyradiometer, condensation particle counter, optical particle counter, nephelometer, aethalometer, ceilometer		N
AP0911 平沢助教	Climate studies	Syowa Droning Maud Land	Name: Naohiko Surname: Hirasawa Job Title or Position: Assistant Professor, NIPR Phone: +81-42-512-0685 Email: hirai.n@nipr.ac.jp	1) radiosonde, tethered balloon, UAV (unmanned aerial vehicle) and ground- based remote sensing at key stations for obtaining atmospheric circulation and the property such as water vapor, aerosols and clouds and 2) traverse around Droning Maud Land and installing AWS (Automatic Weather Station) for obtaining accumulation, snow samples, snow property data (grain size, impurity), surface- air property data (aerosols, water vapor and its stable isotopes) etc.		N
AP0913 金産准教授	Geophysics and seismology	Syowa Langhovde Skansnes Skallen Rundvågshella	Name: Masaki Surname: Kanao Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0713 Email: kanao@nipr.ac.jp	Multiple-sites arrayed observation of infrasound has been studied to reveal the energy transportation among the ionosphere, atmosphere, ocean, cryosphere, and geosphere in Antarctica. The target is to identify the infrasound generated by icequake, motion of icebergs and ice fields, blizzard, aurora, etc. by the arrayed observation. The infrasound, long- period barometric waves, might be a good proxy for studying climate changes.		N



EIES用番号 対応教員	Project Name/Number:	Discipline: (ドロップダウンリス トから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を 記載。添付はpdfファイル で提出)
AP0914	9-P14-S 山口 准教授 Search for extraterrestrial materials in Antarctica 南極における地球外物質探査	Planetary science	Dome Fuji	Name: Akira Surname: Yamaguchi Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0707 Email: yamaguchi@nipr.ac.jp	The purpose of this project is to collect surface snow near the Dome Fuji station which contains micrometeorites with very low degrees of terrestrial weathering.		N
AP0917	9-P17-S 青山助教 Study on the ice sheet changes and GIA by absolute gravity measurements and GNSS observations in Soya Coast and inland mountain area, Antarctica. 絶対重力測定とGNSS観測による南極氷床変動とGIAの研究 宗谷海岸およびセール・ロンダナーネ山地	Geomorphology	Soya Coast Sor Rondane	Name: Yuichi Surname: Aoyama Job Title or Position: Assistant Professor, NIPR Phone: +81-42-512-0712 Email: aoyama@nipr.ac.jp	We will carry out absolute gravity measurements and GNSS observations on several outcrops in Soya Coast and Prince Olav Coast to investigate crustal movements associated with Glacial Isostatic Adjustment.		N
AP0921	9-P21-S 工藤 准教授 Major succession/transition of terrestrial/lake ecosystems 露岩嶺と生物の変遷から探る生態系のメジャー・トランジション	Biological sciences – other	Soya Coast	Name: Sakae Surname: Kudo Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0739 Email: skudo@nipr.ac.jp	Limnological survey of lakes, biological sampling, and year-around environmental observations using automated equipments in Soya Kaigan.		N
AP0922	9-P22-S 高橋 准教授 Responses of marine predators to environmental change: year-round tracking approach 一年を運した生態計測で探る高次捕食動物の環境応答	Biological sciences – other	Langhovde	Name: Akinori Surname: Takahashi Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0741 Email: atak@nipr.ac.jp	The year-round tracking of foraging and fasting in Adelle penguins and wedge seals by using such biologind devices as geolocator, depth recorders, and CT recorders.		N
AP0923	9-P23-S 東京海洋大 学 茂木 准教授 小蓮 教授 Marine Ecosystem of the Indian Ocean Sector of the Southern Ocean 南大洋インド洋セクターにおける海洋生態系の統合的研究プログラム	Biological sciences – other	the Indian Ocean Sector of the Southern Ocean	Name: Masato Surname: Moteki Job Title or Position: Associate Professor, Tokyo University of Marine Science and Technology Email: masato@kaiyodai.ac.jp	Understanding of the ecosystem beneath sea ice is essential for ecological studies of both krill- and mysctophid-based food webs. The black box beneath the ice should be opened. Water collections at some depths and plankton collections as well as acoustic sounding are carried out at stations, including those in ice covered areas. The community compositions at various depths as well as the vertical distributions of temperature, salinity and nutrients are observed for elucidating the environmental changes of the Southern Ocean.		N
AP0924	9-P24-W 大野 客員教 授 渡邊 教授 Medical researches on Antarctic expeditioners under extreme environment 極限環境下における南極観測隊員の医学的研究	Biological sciences – other	Syowa	Name: Kentaro Surname: Watanabe Job Title or Position: Professor, NIPR Phone: +81-42-512-0646 Email: kentaro@nipr.ac.jp	Survey for Legionella in Antarctic environment / Study on dental health of expedition personnel.		N
<b>Exploratory Research Project (南極研究観測)</b>							

Project Name/Number:	Discipline: (ドキュメントから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を記載。添付はpdfファイルで提出)
AH0902 9-H02-W 平次助教	Other	Syowa Station	Name: Masahiko Surname: Hayashi Job Title or Position: Professor, Faculty of Science, Fukuoka University Phone: +81-871-6631 ex.6168 Email: mhayashi@fukuoka-u.ac.jp	Unmanned aerial vehicle (UAV) is rapidly getting to be an important platform of the polar activity. UAV provides a great variety of use in various fields. To satisfy the purposes, multiple types of UAV are needed. Aerial photography is one of common sensing for various fields in science and logistics. This study develops the technics of aerial photography by UAV for the polar region.		N
AH0903 9-H03-S 一橋大学 大坪教授 青山助教	Other	Syowa Station	Name: Toshimichi Surname: Ohtsubo Job Title or Position: Professor, Hitotsubashi University Phone: Email: totsutor@hit-u.ac.jp	We will observe weather condition and total cloud amount of Syowa Station to check observation feasibility of Satellite Laser Ranging.		N
<b>Preferential Observations (優先観測)</b>						
AMS0901 9-MS1-W 宮岡教授	Other	Syowa	Name: Hiroshi Surname: Miyaoaka Job Title or Position: Professor, NIPR Phone: +81-42-512-0652 Email: miyaoaka@nipr.ac.jp	Data acquisition of NOAA, DMSP, AQUA and TERRA satellites with J/S-X-band receiving system at Syowa Station.		N
AMU0901 9-MU1-W 門倉教授	Earth and atmospheric sciences - other	Syowa	Name: Akira Surname: Kadokura Job Title or Position: Professor, NIPR Phone: +81-42-512-0653 Email: kadokura@nipr.ac.jp	Auroras are monitored with all-sky electric imagers (EAI and PA) and a CCD camera from late February to early October at Syowa Station.		N
AMU0902 9-MU2-W 門倉教授	Earth and atmospheric sciences - other	Syowa	Name: Akira Surname: Kadokura Job Title or Position: Professor, NIPR Phone: +81-42-512-0653 Email: kadokura@nipr.ac.jp	Absolute geomagnetism is observed every month and relative observation is conducted continuously at Syowa Station.		N
AMU0903 9-MU3-W 門倉教授	Earth and atmospheric sciences - other	Syowa Nishi-Ongul To (Island)	Name: Akira Surname: Kadokura Job Title or Position: Professor, NIPR Phone: +81-42-512-0653 Email: kadokura@nipr.ac.jp	A riometer observation is conducted with two sets of antenna arrays all year-round at Syowa Station and on Nishi-Ongul To (Island). Natural electromagnetic waves are monitored all year-round on Nishi-Ongul To (Island), where artificial noise level is low.		N
AMP0901 9-MP1-W 後藤助教	Atmospheric sciences	Syowa	Name: Daisuke Surname: Goto Job Title or Position: Assistant Professor, NIPR Phone: +81-42-512-0673 Email: goto.daisuke@nipr.ac.jp	Monitoring of atmospheric CO <sub>2</sub> , CH <sub>4</sub> and CO is carried out all year-round at Syowa Station. Atmospheric O <sub>2</sub> is also monitored. Atmosphere is collected periodically and brought back to Japan for further analyses.		N

EIES用番号  
対応教員

Project Name/Number:	Discipline: (ドキュメントから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を記載。添付はpdfファイルで提出)
EIES月番号 対応教員 AMP0902 9-MP2-W 塩原准教授	Atmospheric sciences	Syowa	Name: Masataka Surname: Shobara Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0678 Email: shc@nipr.ac.jp	All-sky images are recorded every 10 minutes to monitor cloud cover at Syowa Station all year-round. Vertical distribution of cloud aerosols are monitored continuously with a micro-pulse lidar at Syowa Station. A sky radiometer is installed at Syowa Station to monitor solar radiation from mid-August to early May. Size distribution of aerosol is monitored continuously at Syowa Station all year-round as well as aethalometer observation.		N
AMP0903 9-MP3-W 本山教授	Glaciology	from Syowa Station to S16 site via Tottuki Misaki S16 site	Name: Hideaki Surname: Motoyama Job Title or Position: Professor, NIPR Phone: +81-42-512-0680 Email: motoyama@nipr.ac.jp	Monitoring sea ice thickness and depth of snow along a route from Syowa Station to S16 site via Tottuki Misaki is carried out as much as possible all year-round. Snow gauges at S16 site and route waypoints are measured during inland traverse, when implemented.		N
AMP0904 9-MP4-S 牛尾准教授	Oceanography	Along cruise track of RV Shirase, Near Syowa	Name: Shuki Surname: Ushio Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0676 Email: ushio@nipr.ac.jp	Measurements of sea ice thickness, ice concentration, water temperature/salinity profile, and water current profile. Monitoring of vessel movement during ice navigation.		N
AMG0901 9-MG1-W 土井准教授	Geomorphology	Syowa Nishi-Ongul	Name: Koichiro Surname: Doi Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0701 Email: doi@nipr.ac.jp	Monitoring of a fixed point location in Syowa Station is carried out with a DORIS antenna operating all year-round. Ground temperature is monitored all year-round at sites near the Zakuro Iike in Langhove and near the O-Ike in Nishi-Ongul To (Island). VLBI experiments are carried out 6-8 times a year using a multi-purpose 11 meter diameter dish and gravity is monitored with a super-conductivity gravimeter at Syowa Station. Tide is monitored near Syowa Station with a GPS buoy all year-round.		N
AMG0902 9-MG2-W 金尾准教授	Geophysics and seismology	Syowa Station and four sites on the Sôya Kaigan	Name: Masaki Surname: Kanao Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0676 Email: kanao@nipr.ac.jp	Seismometers are installed to monitor earthquakes at Syowa Station and four sites on the Sôya Kaigan all year-round.		N

Project Name/Number:	Discipline: (ドロップダウンリストから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を記載。添付はpdfファイルで提出)
EIES用番号 対応教員 9-MG3-S 野木教授 AMG0903	Geophysics and seismology	Along cruise track of RV Shirase	Name: Yoshitumi Surname: Nogi Job Title or Position: Professor, NIPR Phone: +81-42-512-0711 Email: nogi@nipr.ac.jp	Monitoring observations of fixed point coordinates in bare rock areas in the Lützow-Holmbukta and the Riser-Larsen Mountains areas are carried out with GPS receivers for about 24 hours each every summer. Ocean gravity and geomagnetism are measured on board the RV Shirase from Fremantle to Sydney. Sea bottom pressure is monitored with a pressure gauge installed, and recovered every summer on the sea bottom about 4000 meter deep in the Southern Ocean.		N
9-MG4-W 金屋准教授 AMG0904	Geophysics and seismology	Syowa	Name: Masaki Surname: Kanao Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0713 Email: kanao@nipr.ac.jp	Arrayed observation of infrasound has been carried out at Syowa Station all year-round.		N
9-MB1-W 高橋准教授 AMB0901	Biological sciences – other	Sōya Kaigan area	Name: Atsushi Surname: Takahashi Job Title or Position: Associate Professor, NIPR Phone: +81-42-512-0741 Email: atak@nipr.ac.jp	Census of Adelle penguins at rockeries in the Soya Kaigan area is carried out in mid-November and early December. Number of the penguins and the pairs are counted.		N
9-MB2-S 小蓮教授 AMB0902	Biological sciences – other	Along cruise track of RV Shirase	Name: Tsuneo Surname: Odate Job Title or Position: Professor, NIPR Phone: +81-42-512-0738 Email: odate@nipr.ac.jp	Oceanographic observations in the Southern Ocean along the cruise track of RV Shirase are carried out between Fremantle and Sydney. Surface water is pumped up to measure physical, chemical and biological parameters, including Chlorophyll a and pCO <sub>2</sub> concentrations. Water collections at some depths and plankton collections are carried out at stations, including those in ice covered areas.		N
9-TC1-S 海上保安庁 定常	Oceanography	Lützow-Holmbukta	Name: Yoshiharu Surname: Nagaya Job Title or Position: Director, Hydrographic Surveys Division, Hydrographic and Oceanographic Department, Japan Coast Guard Phone: + 81-3-3595-3606 Email: nanyokyu@jodc.go.jp	Bathymetric survey		N

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EIES用番号 対応教員  9-TC2-WS 海上保安庁	Oceanography	Syowa	Name: Yoshiharu Surname: Nagaya Job Title or Position: Director, Environmental and Oceanographic Research Division Hydrographic and Oceanographic Department, Japan Coast Guard Phone: +81-3-3585-3606 Email: nankyoku@jodc.go.jp	Tidal observation		N
9-TG1-S 国土地理院	Geomorphology	Syowa	Name: Osamu Surname: Akutsu Job Title or Position: Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6159 Email: antarctic@gsi.go.jp	Precise Geodetic Observations (GNSS Observation) Precise Geodetic Observations (Relative Gravity Survey) Precise Geodetic Observations (Geoid Survey) Leveling Precise Geodetic Observations (Absolute Gravity Survey)		N
8-TG2-S 国土地理院	Geomorphology	Syowa	Name: Osamu Surname: Akutsu Job Title or Position: Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6159 Email: antarctic@gsi.go.jp	Signal for aerial photography Aerial photography		N
9-TJM1-W 気象庁	Meteorology	Syowa	Name: Masato Surname: Fukuda Job Title or Position: Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp	Air Pressure Air Temperature Humidity Wind speed Wind direction Sunshine duration Global solar radiation		N
9-TJM2-W 気象庁	Meteorology	Syowa	Name: Masato Surname: Fukuda Job Title or Position: Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp	Radiosonde/ Atmospheric pressure, Air temperature, Humidity, Wind speed, Wind direction		N

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EIES用番号 対応教員  9-TJM3-W 気象庁  定常	Meteorology	Syowa	Name: Masato Surname: Fukuda Job Title or Position: Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp	Total ozone Unkkehr Surface ozone Ozonesonde/ Ozone amount, Atmospheric pressure		N
9-TJM4-W 気象庁  定常	Meteorology	Syowa	Name: Masato Surname: Fukuda Job Title or Position: Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp	Global solar radiation, Direct solar radiation, Diffuse solar radiation, Composite global solar radiation, Downward longwave radiation, Downward total radiation, UV-B radiation, Reflected solar radiation Upward longwave radiation, Upward total radiation, Atmospheric turbidity Surface spectral ultraviolet radiation		N
9-TJM5-W 気象庁  定常	Meteorology	Syowa	Name: Masato Surname: Fukuda Job Title or Position: Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp	Weather Conditions		N
9-TJM6-W 気象庁  定常	Meteorology	Syowa	Name: Masato Surname: Fukuda Job Title or Position: Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp	Automatic Weather Station observation		N
9-TN1-WS 情報通信研 究機構  定常	Earth and atmospheric sciences - other	Syowa	Name: Hideo Surname: Maeno Job Title or Position: Senior Research, Space Environment Laboratory, Applied Electromagnetic Research Institute, National Institute of Information and Communications Technology (NICT) Phone: +81-42-327-6096 Email: maeno@nict.go.jp	Ionospheric vertical sounding GPS scintillation monitoring		N

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9-TN2-WS 情報通信研究機構 宇宙天気予報に必要なデータ収集	Astrophysics	Syowa	Name: Hideo Surname: Maeno Job Title or Position: Senior Research, Space Environment Laboratory, Applied Electromagnetic Research Institute, National Institute of Information and Communications Technology (NICT) Phone: +81-42-327-6096 Email: maeno@nict.go.jp	Data acquisition of ionospheric vertical sounding, GPS scintillation monitoring, magnetic field variations, and cosmic noise absorption		N
<b>Others (その他)</b>						
9-K01-S 継続的国内外共同観測 対応教員: 牛尾准教授	Meteorology	Along cruise track of RV Shirase	Name: Joel Surname: Cabrie Job Title or Position: Team Leader, Marine Networks, Bureau of Meteorology, Australia Phone: +61 3 9669 4651 Email:	Surface drifting buoys will be deployed from the Australian Bureau of Meteorology. Location and sea surface data are transmitted to the satellite.		N
9-K02-S 継続的国内外共同観測 対応教員: 牛尾准教授	Oceanography	Along cruise track of RV Shirase	Name: Shigeki Surname: Hosoda Job Title or Position: Senior Research Scientist, JAMSTEC Phone: Email:	Profiling floats will be deployed from the icebreaker Shirase in the Southern Ocean. Temperature and salinity profiles measured by floats are to be transmitted via satellite systems.		N
9-O04-S 公開利用研究 対応教員: 牛尾准教授	Atmospheric sciences	Along cruise track of RV Shirase	Name: Makoto Surname: Kuji Job Title or Position: Professor, Nara Women's University Phone: +81-742-20-3044 Email: makato@ics.nara-wu.ac.jp	An all-sky camera, mounted on RV Shirase, is used to detect marine clouds. The cloud amount product is useful to validate that from the satellite remote sensing.		N
9-O05-S 公開利用研究 対応教員: 工藤教授	Biological sciences - other	Skvnsnas	Name: Shinpei Surname: Gotoh Job Title or Position: Assistant Professor, Tokyo University of Marine Science and Technology Phone: Email:	3D-images of the Antarctic lake bottom microbial assemblages will be remotely recorded by way of an underwater vehicle.		N
9-O05-S 公開利用研究 対応教員: 後藤助教	Atmospheric sciences	Along cruise track of RV Shirase	Name: Shinji Surname: Morimoto Job Title or Position: Professor, Tohoku University Phone: +81-22-795-5780 Email: mor@m.tohoku.ac.jp	Continuous measurements of the atmospheric O <sub>2</sub> /N <sub>2</sub> ratio and CO <sub>2</sub> will be conducted using fuel-cell oxygen analyzer and non-dispersive infrared analyzer onboard RV Shirase.		N

EIES用番号  
対応教員

定常

継続的国内外共同観測

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公開利用研究

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Project Name/Number:	Discipline: (ドキュメントから選択)	Location of Activities:	Contact Point	Details/Description:	Link (URL):	Additional information: (添付ファイルの有無を記載。添付はpdfファイルで提出)
EIES用番号 対応教員  9-O06-S 対応教員: 菊池助教	Psychology	Syowa, S17, and coastal area of Lützow-Holm bay.	Name: Shin Surname: Murakoshi Job Title or Position: Professor, Shizuoka University Phone: +81-54-238-4666 Email: murakoshi.shin@shizuoka.ac.jp	This study investigates practical knowledge to treat risk in extreme environment which might be obtained in experience of Antarctic research expedition. Participant observation of safety meeting and research and logistic activities in the field as well as a questionnaire survey will be conducted		N
公開 利用 研究						
9-O07-S 対応教員: 土井准教授	Other	Syowa Station	Name: Hiroshi Surname: Ikeda Job Title or Position: Associate Professor, University of Tsukuba Phone: Email: ikedabk.tsukuba.ac.jp	We will examine several operating parameters of refrigerating system of the superconducting gravimeter in Syowa Station to find the optimum operating conditions.		N
公開 利用 研究						
9-O08-S 対応教員: 平沢助教	Climate studies	S17	Name: Kouichi Surname: Nishimura Job Title or Position: Professor, Nagoya University Phone: Email: knishinagoya-u.jp	This study carries out a field campaign of observation focusing on blowing snow and the relevant surface deformation at S17 on the Antarctic ice-sheet near Syowa station. The major measurements are 1) the particle size distribution of blowing snow by a snow particle counter (SPC), 2) the surface shape by laser scanner for the snow surface, and automatic weather station (AWS).		N
公開 利用 研究						
9-G03-S 対応教員: 高橋准教授	Biological sciences - other	Signy Island	Name: Jean-Baptiste Surname: Thiebot Job Title or Position: Project Researcher, NPR Phone: +81-42-512-0768 Email: jthiebo@npr.ac.jp	We will compare foraging ecology of penguins between Signy Island and Syowa Station to better understanding environmental factors affecting their foraging behaviour, by using cancellation data loggers.		N
外国基地 派遣						
9-G04-S 対応教員: 門倉教授	Earth and atmospheric sciences - other	South Pole Station	Name: Yusuke Surname: Ebihara Job Title or Position: Associate Professor, Kyoto University Phone: +81-774-38-3346 Email: ebihara@ish.kyoto-u.ac.jp	We have operated all-sky imagers at South Pole Station to observe dynamics of high-latitude auroras. The purpose of this trip is to repair one of the imagers, and collect data from the imagers. In addition, we will make an inspection of related equipments in the station.		N
外国基地 派遣						