



Antarctic Treaty

Electronic Information Exchange System

Party: Japan
2014/2015 Annual Information

Scientific Information - Forward Plans

Science Plan/Program/Project:	8-B1111-W: Medical researches on Antarctic expeditioners under extreme environment		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Kentaro Watanabe	
Contact Point:	Job Title or Position:	Professor	
	Phone:	+81-42-512-0646	
	Email:	kentaro@nipr.ac.jp	
Details/Description:	Survey for Legionella in Antarctic environment / Study on dental health of expedition personnel.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-E01-S: A joint study on solid-earth, atmosphere, ocean and cryosphere interaction with Republic of Korea		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Masaki Kanao	
Contact Point:	Job Title or Position:	Associate Professor	
	Phone:	+81-42-512-0713	
	Email:	kanao@nipr.ac.jp	
Details/Description:	Deploy infrasound and seismic instruments around the Jang-Bogo Station, Terra Nova Bay, including Divid glacier and Mt. Melbourne in order to detect seismic and infrasound waves so as to identify seismicity, volcanic eruption, location of multi-sphere sources and their occurrence mechanism.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-E02-S: A feasible study to investigate a possibility to establish a telescope for future astronomical observations at Concordia Station		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Naomasa Nakai	

Contact Point:	Job Title or Position:	Professor, Physics, Graduate School of Pure and Applied Sciences, University of Tsukuba
	Phone:	+81-29-853-4281
	Email:	nakai@physics.px.tsukuba.ac.jp
	Details/Description:	The main point is to observe transportation system by sea and land through joining the French Antarctic Expedition to Concordia Station during 2015/16 season. The data obtained through this activity will be made full use of the budget request to the Japanese government for the FY 2016.
Link (URL):		
Additional Information:		
Discipline:		
		Areas of Activity

Science Plan/Program/Project:	8-G03-S: A collaborative study on high latitude dayside aurora at U.S. South Pole and McMurdo Stations in Antarctica	
Planned Operating Period:	From	To
	Organisation:	
	Name:	Yusuke Ebihara
Contact Point:	Job Title or Position:	Associate Professor, Research Institute for Sustainable Humanosphere, Kyoto University
	Phone:	+81-774-38-3844
	Email:	ebihara@rish.kyoto-u.ac.jp
Details/Description:	To observe high latitude dayside electron and proton auroras with all-sky monochromatic imagers at South Pole and McMurdo Stations in Antarctica.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-G04-S: Study on lake ecosystem in Nunatak with USA, Russia, Austria, and Canada	
Planned Operating Period:	From	To
	Organisation:	
	Name:	Yukiko Tanabe
Contact Point:	Job Title or Position:	Assistant Professor, NIPR
	Phone:	+81-42-512-0736
	Email:	ukko@nipr.ac.jp
Details/Description:	Benthic and planktonic microbial communities, sediment cores, lake water samples, photo-physiological data of the benthic phototrophs, limnological data of water column, and bathymetric data will be collected from Lake Untersee, Gruber Mountain.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-J1-W: Earth's environmental change revealed by observing the Antarctic middle and upper atmosphere	
Planned Operating Period:	From	To
	Organisation:	
	Name:	Takuji Nakamura
Contact Point:	Job Title or Position:	Professor, NIPR
	Phone:	+81-42-512-0656
	Email:	nakamura.takuji@nipr.ac.jp
Details/Description:	Studies of various processes on the global atmospheric environmental change using Antarctic observations with (1) PANSY (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 VIIth term.	
Link (URL):		
Additional Information:		

Discipline:

Areas of Activity

Science Plan/Program/Project:	8-J3-W: Present evaluation and future prediction of the global environment in the framework of glacial-interglacial cycle	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Hideaki Motoyama
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0680
	Email:	motoyama@nipr.ac.jp
Details/Description:	<p>'Antarctic cooling area' in the global climate system is composed of Antarctic Continent and Southern Ocean. A goal of this project is that the knowledge of the history of environmental change and the mechanism of its fluctuation during glacial - interglacial cycles should be advanced. And the accurate perspective to a future global environment change and necessary countermeasure based on the knowledge could be made.</p>	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-MB1-W: Population census of Adélie penguins	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Akinori Takahashi
Contact Point:	Job Title or Position: Associate Professor	
	Phone:	+81-42-512-0741
	Email:	atak@nipr.ac.jp
Details/Description:	<p>Census of Adélie penguins at rookeries in the Sôya Kaigan area is carried out in mid-November and early December. Number of the penguins and the pairs are counted.</p>	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-MB2-5-S: Marine ecosystem monitoring	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Tsuneo Odate
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0738
	Email:	odate@nipr.ac.jp
Details/Description:	<p>Oceanographic observations in the Southern Ocean along the cruise track of R/V Shirase are carried out between Fremantle and Sydney. Surface water is pumped up to measure physical, chemical and biological parameters, including Chlorophyll a and pCO2 concentrations. Water collections at some depths and plankton collections are carried out at stations, including those in ice covered areas.</p>	
Link (URL):		
Additional Information:		

Discipline:

Areas of Activity

Science Plan/Program/Project:	8-MG1-W: Monitoring study on changes in geosphere in Antarctica (winter)		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Koichiro Doi	
Contact Point:	Job Title or Position:	Associate Professor	
	Phone:	+81-42-512-0701	
	Email:	doi@nipr.ac.jp	
Details/Description:	<p>Monitoring of a fixed point location in Syowa Station is carried out with a DORIS antenna operating all year-round. Seismometers are installed to monitor earthquakes at Syowa Station and four sites on the Sôya Kaigan all year-round. Ground temperature is monitored all year-round at sites near the Zakuro Ike in Langhovde and near the Ô-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.</p>		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-MG2-S: Monitoring study on change in geosphere in Antarctica (summer)		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Yoshifumi Nogi	
Contact Point:	Job Title or Position:	Professor	
	Phone:	+81-42-512-0711	
	Email:	nogi@nipr.ac.jp	
Details/Description:	<p>Monitoring observations of fixed point coordinates in bare rock areas in the Lützow-Holmbukta and the Riiser-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 R/V 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.</p>		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-MP1-W: Monitoring of atmospheric greenhouse gases and related constituents		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Daisuke Goto	
Contact Point:	Job Title or Position:	Assistant Professor	
	Phone:	+81-42-512-0673	
	Email:	goto.daisuke@nipr.ac.jp?	
Details/Description:	<p>Monitoring of atmospheric CO₂, CH₄ and CO is carried out all year-round at Syowa Station. Atmospheric O₂ is also monitored. Atmosphere is collected periodically and brought back to Japan for further analyses.</p>		

Link (URL):

Additional Information:

Discipline:

Areas of Activity

Science Plan/Program/Project:	8-MP2-W: Surface-based remote-sensing observation of clouds and aerosol	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Masataka Shiobara
Contact Point:	Job Title or Position: Associate Professor	
	Phone:	+81-42-512-0678
	Email:	shio@nipr.ac.jp
Details/Description:	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.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-MP3-W: Observations of aerosol size distributions	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Masataka Shiobara
Contact Point:	Job Title or Position: Associate Professor	
	Phone:	+81-42-512-0678
	Email:	shio@nipr.ac.jp
Details/Description:	Size distribution of aerosol is monitored continuously at Syowa Station all year-round.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-MP4-W: Monitoring of Antarctic ice sheet mass balance	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Hideaki Motoyama
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0680
	Email:	motoyama@nipr.ac.jp
Details/Description:	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.	
Link (URL):		
Additional Information:		
Discipline:		

Science Plan/Program/Project:	8-MS1-W: Data Acquisition of Earth Observation Satellites in the Antarctic	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Hiroshi Miyaoka
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0662
	Email:	miyaoka@nipr.ac.jp
Details/Description:	Data acquisition of NOAA, DMSP, AQUA and TERRA satellites with L/S/X-band receiving system at Syowa Station.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-MU1-W: Optical observation of auroras	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Akira Kadokura
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0663
	Email:	kadokura@nipr.ac.jp
Details/Description:	Auroras are monitored with all-sky electric imagers (EAI and PAI) and a CCD camera from late February to early October at Syowa Station.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-MU2-W: Riometer Observation	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Akira Kadokura
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0663
	Email:	kadokura@nipr.ac.jp
Details/Description:	A riometer observation is conducted with two sets of antenna arrays all year-round at Syowa Station and on Nishi-Ongul To (Island).	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-MU3-W: Observation of natural electromagnetic waves		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Akira Kadokura	
Contact Point:	Job Title or Position:	Professor	
	Phone:	+81-42-512-0663	
	Email:	kadokura@nipr.ac.jp	
Details/Description:	Natural electromagnetic waves are monitored all year-round on Nishi-Ongul To (Island), where artificial noise level is low.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-MU4-W: Geomagnetism observation		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Akira Kadokura	
Contact Point:	Job Title or Position:	Professor	
	Phone:	+81-42-512-0663	
	Email:	kadokura@nipr.ac.jp	
Details/Description:	Absolute geomagnetism is observed every month and relative observation is conducted continuously at Syowa Station.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-006-S: Observation of the Southern Ocean using surface drifters -deployments of drifters from Shirase		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Graeme Ball	
Contact Point:	Job Title or Position:	Manager, Marine Operations Group, Bureau of Meteorology, Australia	
	Phone:	+61 3 9669 4203	
	Email:	g.ball@bom.gov.au	
Details/Description:	Surface drifting buoys will be deployed from the icebreaker Shirase in response to the request of the Australian Bureau of Meteorology. Location and sea surface data are transmitted to the satellite.		
Link (URL):	www.bom.gov.au		
Additional Information:			
Discipline:			
	Areas of Activity		



Science Plan/Program/Project:	8-008-S: Deployment of Argo floats (autonomous ocean observing subsurface buoys)		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Katsuro Katsumata	
Contact Point:	Job Title or Position:	Deputy Group Leader, Research and Development Center for Global Change, Japan Agency for Marine-Eart	
	Phone:	+81-46-867-9849	
	Email:	k.katsumata@jamstec.go.jp	
Details/Description:	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.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-009-S: Cloud fraction with an all-sky camera onboard R/V Shirase		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Makoto Kuji	
Contact Point:	Job Title or Position:	Professor, Nara Women University	
	Phone:	+81-742-20-3044	
	Email:	makoto@ics.nara-wu.ac.jp	
Details/Description:	An all-sky camera, mounted on the Research Vessel Shirase, is used to detect marine clouds. The cloud amount product is useful to validate that from the satellite remote sensing.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-O10-W: Effect of solar UV radiation on life in Antarctica, and psychrophile-origin cellulose		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Tetsuya Takahashi	
Contact Point:	Job Title or Position:	Professor, Shimane University	
	Phone:	+81-852-32-6350	
	Email:	ttetsuya@edu.shimane-u.ac.jp	
Details/Description:	Collagen sheets will be used in a unique evaluation method to examine skin damage caused by ultraviolet (UV) light of short wavelength during a season of the Antarctic ozone hole. Also the biosynthesis pathway of psychrophile-origin cellulose will be surveyed.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		



Science Plan/Program/Project:	8-O12-S: Monitoring for long term changes in primary productivity using fast repetition rate fluorometry (FRRf)		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Andrew McMinn	
Contact Point:	Job Title or Position:	University of Tasmania	
	Phone:	+61 3 6226 2980	
	Email:	Andrew.McMinn@utas.edu.au	
Details/Description:	To estimate temporal and spatial variability of phytoplankton physiology, parameters of primary production will be collected using FRRf.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-P07-W: Monitoring and satellite validation of ozone-depleting minor constituents and stratospheric water vapor and aerosols with FTIR infrared spectroscopy, water vapor sondes, and aerosol sondes at Syowa Station, Antarctica		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Hideaki Nakajima	
Contact Point:	Job Title or Position:	Director, Council for Science, Technology and Innovation, Cabinet Office, Government of Japan	
	Phone:	+81-3-6257-1337	
	Email:	nakajima@nies.go.jp	
Details/Description:	Antarctic ozone hole still continues to appear every austral spring, despite the regulation of emission of CFCs under the Montreal protocol. This project use the ground-based Fourier-transform infrared spectrometer (FTIR) data at Syowa Station, and balloon-borne ozonesonde, aerosolsonde, and hygrosonde data to study the detailed chemical/physical mechanism of ozone destruction over the Antarctic stratosphere. The feature of polar stratospheric clouds (PSCs) are simultaneously studied using micro-pulse lidar (MPL) data and PANSY radar data at Syowa Station.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-P09-S: The atmospheric circulation and transport of moisture and aerosols in the Antarctic coastal region in summer season		
Planned Operating Period:	From	To	
	Organisation:	NIPR	
	Name:	Naohiko Hirasawa	
Contact Point:	Job Title or Position:	Assistant Professor	
	Phone:	+81-42-512-0685	
	Email:	hira.n@nipr.ac.jp	
Details/Description:	Moisture exchange processes between the Antarctic coastal icesheet and atmosphere and the transportation processes of coastal-marine-origin aerosols are investigated. This study carries out three major observations as follows; (1) Radiosondes launched at R/V Shirase, at Syowa station and at S17 station on the icesheet, (2) tethered balloon suspending meteorological sensors at Syowa		

	and S17 stations, and (3) unmanned aerial vehicle (UAV) mounting meteorological sensors lunched at Syowa station.
Link (URL):	
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-P34-S: Direct observation of the outflow of Antarctic Bottom Water and sea-ice thickness		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Yasushi Fukamachi	
Contact Point:	Job Title or Position:	Associate Professor, Institute of Low Temperature Science, Hokkaido University	
	Phone:	+81-11-706-7432	
	Email:	yasuf@lowtem.hokudai.ac.jp	
Details/Description:	Mooring observations with Ice Profiling Sonar, ADCP, and MicroCat (CT-meter). Hydrographic and topographic survey in the bottom water production area.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-P35-W: Study on ionospheric perturbation observed by monitoring VLF transmitter signals in Syowa		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Yasuhide Hobara	
Contact Point:	Job Title or Position:	Professor, Graduate School of Informatics and Engineering, The University of Electro-Communications	
	Phone:	+81-42-443-5154	
	Email:	hobara@ee.uec.ac.jp	
Details/Description:	Observations on ionospheric perturbations (D and E regions) using the magnetic signal amplitude and phase will be carried out for statistical studies on ionosphere from (1) energetic particle precipitation from the magnetosphere, (2) global thunderstorm activities, and (3) high energy astronomical events etc.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-P36-S: Ionosphere-Atmosphere-Ocean-Cryosphere-Geosphere interaction by infrasonic observations		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Masa-yuki Yamamoto	
Contact Point:	Job Title or Position:	Associate Professor, Kochi University of Technology	
	Phone:	+81-887-57-2112	
	Email:	yamamoto.masa-yuki@kochi-tech.ac.jp	
Details/Description:	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 icesheets 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.		
Link (URL):			

Additional Information:

Discipline:

Areas of Activity

Science Plan/Program/Project:	8-P37-W: Longitudinal displacement of conjugate auroras as observed by low-power autonomous aurora observation system	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Akira Kadokura
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0663
	Email:	kadokura@nipr.ac.jp
Details/Description:	Unmanned magnetometer network along Dome Fuji traverse route, Sør Rondane Mountains, Amundsen Bay, and Lützow-Holmbukta area is maintained.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-P38-W: Fine structure observations of polar stratospheric and mesospheric clouds at Syowa Station	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Yoshihiro Tomikawa
Contact Point:	Job Title or Position: Associate Professor	
	Phone:	+81-42-512-0660
	Email:	tomikawa@nipr.ac.jp
Details/Description:	In order to clarify fine-scale structures of polar stratospheric clouds, intensive balloon-borne hygrometer observations will be performed at Syowa Station in 2016 together with ozonesonde, aerosol sonde, PANSY radar, Rayleigh lidar, micro-pulse lidar, and FTIR observations.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-P39-W: Study on magnetosphere-ionosphere coupling processes with SuperDARN radars and ground-based optical observations	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Akira Sessai Yukimatsu
Contact Point:	Job Title or Position: Associate Professor	
	Phone:	
	Email:	kokusai@nipr.ac.jp
Details/Description:	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 M-I (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.	
Link (URL):		

Additional Information:

Discipline:

Areas of Activity

Science Plan/Program/Project:	8-P40-S: Sea ice and hydrographic observations onboard R/V Shirase and in Lützow-Holmbukta	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Shuki Ushio
Contact Point:	Job Title or Position: Associate Professor	
	Phone:	+81-42-512-0676
	Email:	ushio@nipr.ac.jp
Details/Description:	Measurements of sea ice thickness, ice concentration, water temperature/salinity profile, and water current profile. Monitoring of vessel movement during ice navigation.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-P41-W: Study on Global Lightning and Global Circuit Activities and Their Relation to Climate Changes Monitored from Polar Region	
Planned Operating Period:	From	To
	Organisation:	Hokkaido University
	Name:	Mitsuteru Sato
Contact Point:	Job Title or Position: Lecturer, Faculty of Science	
	Phone:	+81-11-706-2763
	Email:	msato@ep.sci.hokudai.ac.jp
Details/Description:	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.	
Link (URL):		
Additional Information:		
Discipline:		
	Areas of Activity	

Science Plan/Program/Project:	8-P43-W: Study on conjugacy of auroral activities during the maximum to descending phase of solar activity cycle	
Planned Operating Period:	From	To
	Organisation:	NIPR
	Name:	Akira Kadokura
Contact Point:	Job Title or Position: Professor	
	Phone:	+81-42-512-0663
	Email:	kadokura@nipr.ac.jp
Details/Description:	Conjugate observations of auroral phenomena between Iceland and Syowa Station by using auroral imagers, Scanning photometer, magnetometers, VLF and ULF wave receivers, and riometers.	
Link (URL):		
Additional Information:		

Discipline:

Areas of Activity

Science Plan/Program/Project:	8-P47-S: Study on the material cycle over the Southern Ocean and Antarctic coast		
Planned Operating Period:	From	To	
	Organisation:	Fukuoka University	
	Name:	Masahiko Hayashi	
Contact Point:	Job Title or Position:	Professor, Faculty of Science	
	Phone:	+81-871-6631 ex.6168	
	Email:	mhayashi@fukuoka-u.ac.jp	
Details/Description:	1) Observation of optical property and aerosol concentration along cruise track of R/V Shirase by ship borne instruments, skyradiometer, condensation particle counter, optical particle counter, nephelometer, aethalometer, ceilometer 2) Observation of aerosol size distribution up to 30 km in altitude over Syowa Station by balloon borne optical particle counter. 3) measurement of optical absorption coefficient of aerosol at Syowa Station by an aethalometer.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-P48-S: Precise monitoring for ice flows of Antarctic ice sheet and ice stream with GPS		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Yuichi Aoyama	
Contact Point:	Job Title or Position:	Assistant Professor, NIPR	
	Phone:	+81-887-57-0712	
	Email:	aoyama@nipr.ac.jp@kochi-tech.ac.jp	
Details/Description:	To measure the temporal and spatial variations in the ice flows of Antarctic ice sheet, glacier, and ice stream around Lützow-Holmbukta by the network of several unmanned GPS units.		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-TC1-S: Bathymetric survey		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Yo Iwabuchi	
Contact Point:	Job Title or Position:	Director, Hydrographic Surveys Div., Hydrographic and Oceanographic Dpt., JCG	
	Phone:	+81-3-5500-7120	
	Email:		
Details/Description:	Bathymetric survey		
Link (URL):			
Additional Information:			
Discipline:			

Science Plan/Program/Project:	8-TC2-WS: Tidal observation		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Hiroyuki Yoritaka	
Contact Point:	Job Title or Position:	Director, Environmental and Oceanographic Research Div., Hydrographic and Oceanographic Dpt., JCG	
	Phone:	+81-3-5500-7120	
	Email:		
Details/Description:	Tidal observation		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-TG1-S: Geodetic observations		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Takuya Nojiri	
Contact Point:	Job Title or Position:	Deputy Director, Planning Dpt., GSI	
	Phone:	+81-29-864-6264	
	Email:	antarctic@gsi.go.jp	
Details/Description:	Precise Geodetic Observations (GNSS Observation), Precise Geodetic Observations (Relative Gravity Survey), Precise Geodetic Observation (Geoid Survey), Leveling, Precise Geodetic Observations (Absolute Gravity Survey)		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		

Science Plan/Program/Project:	8-TG2-S: Geodetic survey		
Planned Operating Period:	From	To	
	Organisation:		
	Name:	Takuya Nojiri	
Contact Point:	Job Title or Position:	Deputy Director, Planning Dpt., GSI	
	Phone:	+81-29-864-6264	
	Email:	antarctic@gsi.go.jp	
Details/Description:	Signal for aerial photography, Aerial photography		
Link (URL):			
Additional Information:			
Discipline:			
	Areas of Activity		



Science Plan/Program/Project:	8-TJM1-W: Surface synoptic observation
Planned Operating Period:	From To
	Organisation: Japan Meteorological Agency
	Name: Masato Fukuda
Contact Point:	Job Title or Position: Head, Office of Antarctic Observations, Observations Department
	Phone: +81-3-3211-8409
	Email: antarctic@met.kishou.go.jp
Details/Description:	Air Pressure, Air Temperature, Humidity, Wind speed, Wind direction, Sunshine duration, Global solar radiation
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-TJM2-W: Upper-air observation
Planned Operating Period:	From To
	Organisation: Japan Meteorological Agency
	Name: Masato Fukuda
Contact Point:	Job Title or Position: Head, Office of Antarctic Observations, Observations Department
	Phone: +81-3-3211-8409
	Email: antarctic@met.kishou.go.jp
Details/Description:	Radiosonde/ Atmospheric pressure, Air temperature, Humidity, Wind speed, Wind direction
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-TJM3-W: Ozone observations
Planned Operating Period:	From To
	Organisation: Japan Meteorological Agency
	Name: Masato Fukuda
Contact Point:	Job Title or Position: Head, Office of Antarctic Observations, Observations Department
	Phone: +81-3-3211-8409
	Email: antarctic@met.kishou.go.jp
Details/Description:	Total ozone, Umkehr, Surface ozone, Ozonesonde / Ozone amount, Atmospheric pressure
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-TJM4-W: Radiation observation
Planned Operating Period:	From To
	Organisation: Japan Meteorological Agency
	Name: Masato Fukuda
Contact Point:	Job Title or Position: Head, Office of Antarctic Observations, Observations Department
	Phone: +81-3-3211-8409
	Email: antarctic@met.kishou.go.jp
Details/Description:	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
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-TJM5-W: Weather analysis
Planned Operating Period:	From To
	Organisation: Japan Meteorological Agency
	Name: Masato Fukuda
Contact Point:	Job Title or Position: Head, Office of Antarctic Observations, Observations Department
	Phone: +81-3-3211-8409
	Email: antarctic@met.kishou.go.jp
Details/Description:	Weather Conditions
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-TJM6-W: Another observation
Planned Operating Period:	From To
	Organisation: Japan Meteorological Agency
	Name: Masato Fukuda
Contact Point:	Job Title or Position: Head, Office of Antarctic Observations, Observations Department
	Phone: +81-3-3211-8409
	Email: antarctic@met.kishou.go.jp
Details/Description:	Weather robot observation
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Discipline:	
	Areas of Activity



Science Plan/Program/Project:	8-TN1-WS: Ionospheric observations
Planned Operating Period:	From To
	Organisation:
	Name: Tsutomu Nagatsuma
Contact Point:	Job Title or Position: Research Mgr, Applied Electromagnetic Research Institute, NICT
	Phone: +81-42-327-6095
	Email: tnagatsu@nict.go.jp
Details/Description:	Ionospheric vertical sounding, GPS scintillation monitoring
Link (URL):	http://wdc.nict.go.jp/ionog/10c_viewer/o_index.html
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-TN2-WS: Data acquisition for monitoring space weather conditions
Planned Operating Period:	From To
	Organisation:
	Name: Tsutomu Nagatsuma
Contact Point:	Job Title or Position: Research Mgr, Applied Electromagnetic Research Institute, NICT
	Phone: +81-42-327-6095
	Email: tnagatsu@nict.go.jp
Details/Description:	Data acquisition of ionospheric vertical sounding, GPS scintillation monitoring, magnetic field variations, and cosmic noise absorption
Link (URL):	http://wdc.nict.go.jp/ionog/10c_viewer/o_index.html
Additional Information:	
Discipline:	
	Areas of Activity

Science Plan/Program/Project:	8-TN3-S: Mobile ionospheric observations
Planned Operating Period:	From To
	Organisation:
	Name: Tsutomu Nagatsuma
Contact Point:	Job Title or Position: Research Mgr, Applied Electromagnetic Research Institute, NICT
	Phone: +81-42-327-6095
	Email: tnagatsu@nict.go.jp
Details/Description:	The phase and field strength of LF standard time and frequency signals along cruise track of R/V Shirase
Link (URL):	http://wdc.nict.go.jp/ionog/10c_viewer/o_index.html
Additional Information:	
Discipline:	
	Areas of Activity

Scientific Information - Science Activities in Previous Year

Project Name/Number:	8-B1111-W: Medical researches on Antarctic expeditioners under extreme environment
Discipline:	Bioscience
Principal Investigator:	Kentaro Watanabe, Professor, NIPR Phone: +81-42-512-0646 Email: kentaro@nipr.ac.jp
Main Activity/ Remarks:	Survey for Legionella in Antarctic environment / Study on dental health of expedition personnel / Study on seasonal variation of stress on overwintering expeditioners
Link (URL):	
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Syowa
	Aboard R/V Shirase

Project Name/Number:	8-G01-S: Limnological and ecological studies on Byer Penninsula in Livingston Island with Spanish Antarctic Research Expedition
Discipline:	Bioscience
Principal Investigator:	Sakae Kudoh, Associate Professor, NIPR Phone: +81-42-512-7739 Email: skudoh@nipr.ac.jp
Main Activity/ Remarks:	Limnological and ecological survey with Spanish scientists was carried out around lakes on Byer Peninsula in Livingston Island.
Link (URL):	
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Byers peninsula in Livingston Island

Project Name/Number:	8-G02-S: Japan-Korea collaborative study on foraging habitat of penguins by bio-logging approaches
Discipline:	Bioscience
Principal Investigator:	Nobuo Kokubun, Assistant Professor Phone: +81-42-512-0704 Email: kokubun@nipr.ac.jp
Main Activity/ Remarks:	Foraging scene of chinstrap and gentoo penguins were investigated by new type of animal-borne video camera with accelerometers. Foraging locations of these penguins were investigated by GPS loggers with accelerometers. Nest number and breeding success of the penguins were monitored.
Link (URL):	
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Barton Peninsula, King George Island

Project Name/Number:	8-J1-WS: Earth's environmental change revealed by observing the Antarctic middle and upper atmosphere
Discipline:	Space and upper atmospheric sciences, Meteorology and glaciology
Principal Investigator:	Takuji Nakamura, Professor, NIPR Phone: +81-42-512-0602 Email: nakamura.takuji@nipr.ac.jp
Main Activity/ Remarks:	PANSY(Program of Antarctic Syowa MST/IS) radar observation, Rayleigh/Raman lidar observation of temperature, density and clouds up to the mesosphere, Millimeter spectrometer observation of minor constituents in the stratosphere and the mesosphere, All-sky airglow observations of the mesosphere and the thermosphere, Mesopause temperature measurement by OH airglow, Medium

Frequency (MF) radar observation of the mesospheric winds, Balloon-borne CO2 observations in the troposphere and the lower stratosphere	
Link (URL):	
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
Syowa	

Project Name/Number:	8-J2-S: Responses of Antarctic marine ecosystems to global environmental changes with carbonate systems	
Discipline:	Marine biogeochemistry and ecology	
Principal Investigator:	Hiroshi Sasaki, Professor, Ishinomaki Senshu University Phone: +81-225-22-7716 Email: sasaki@isenshu-u.ac.jp	
Main Activity/ Remarks:	Mooring observations using a surface drifter system and a bottom-tethered system in the Antarctic Ocean, Biological oceanographic observations on phytoplankton and zooplankton in the Antarctic Ocean, Temporal and spatial variability in carbonate systems in the seasonally ice covered and fast ice regions	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Along cruise track of R/V Shirase		
Syowa		

Project Name/Number:	8-J3-S: Present evaluation and future prediction of the global environment in the framework of glacial-interglacial cycle	
Discipline:	Meteorology and glaciology, Geoscience	
Principal Investigator:	Hideaki Motoyama, Professor, NIPR Phone: +81-42-512-0680 Email: motoyama@nipr.ac.jp	
Main Activity/ Remarks:	Submarine glacial landform surveys using a multibeam echo-sounder with vessel	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Lützow-Holmbukta		

Project Name/Number:	8-MB1-W: Population census of Adélie penguins	
Discipline:	Bioscience	
Principal Investigator:	Akinori Takahashi, Associate Professor, NIPR Phone: +81-42-512-0741 Email: atak@nipr.ac.jp	
Main Activity/ Remarks:	Census of Aedile penguin populations	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Benten Jima		
Rumpa		
Ytre hovdeholmen		
Mizukuguri Ura		
Fukuro Ura		
Nekkelholmane		
Sigaren		
Ongulkalven		

Torinosu Wan
Mame Jima

Project Name/Number:	8-MB4-S: Marine ecosystem monitoring		
Discipline:	Bioscience		
Principal Investigator:	Tsuneo Odate, Professor, NIPR Phone: +81-42-512-0738 Email: odate@nipr.ac.jp		
Main Activity/ Remarks:	Observation of plankton and marine environmental parameters		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
			Areas of Operation
	Along cruise track of R/V Shirase between Fremantle and Syowa		
	Along cruise track of R/V Shirase between Syowa and Fremantle		

Project Name/Number:	8-MB6-S: Monitoring study on Antarctic terrestrial ecosystem		
Discipline:	Bioscience		
Principal Investigator:	Satoshi Imura, Professor, NIPR Phone: +81-42-512-0737 Email: imura@nipr.ac.jp		
Main Activity/ Remarks:	Environmental parameters of lakes in the Skarvsnes area were monitored. Flora and environmental parameters were monitored at fixed points along the Yukidori Zawa in Langhovde. Soil samples for analyzing the biomass of bacterial were collected at fixed points near Syowa Station.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Syowa		
	Langhovde		

Project Name/Number:	8-MG04-W: Gravity measurement by a superconducting gravimeter		
Discipline:	Geoscience		
Principal Investigator:	Koichiro Doi, Associate Professor, NIPR Phone: +81-42-512-0701 Email: doi@nipr.ac.jp		
Main Activity/ Remarks:	Continuous measurement of temporal gravity change was carried out by a superconducting gravimeter.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Syowa Station		

Project Name/Number:	8-MG05-W: Ground truth observations for satellite remote sensing data validation		
Discipline:	Geoscience		
Principal Investigator:	Koichiro Doi, Associate Professor, NIPR Phone: +81-42-512-0701 Email: doi@nipr.ac.jp		
Main Activity/ Remarks:	Some GPS observations were carried out at one site on sea ice and one site on ice sheet.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	S19		
	Nisi-no-ura (Cove)		

Project Name/Number:	8-MG07-S: Broad-band and short-period seismic monitoring observation at Syowa Station, East Antarctica		
Discipline:	Geoscience		
Principal Investigator:	Masaki Kanao, Associate Professor, NIPR Phone: +81-42-512-0713 Email: kanao@nipr.ac.jp		
Main Activity/ Remarks:	Structure and dynamics of the Earth, as viewed from Antarctica, together with seismicity and characteristics of wave propagation were investigated by using both broad-band seismometer (STS-1) and short-period seismometer (HES) at Syowa Station.		
Link (URL):			

Additional Information:

Operating Period:

From: To:

Areas of Operation

Syowa Station

Project Name/Number:	8-MG08-W: VLBI experiment		
Discipline:	Geoscience		
Principal Investigator:	Koichiro Doi, Associate Professor, NIPR Phone: +81-42-512-0701 Email: doi@nipr.ac.jp		
Main Activity/ Remarks:	International VLBI experiments were carried out at 6 times in JARE55 at Syowa Station.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
Syowa			

Project Name/Number:	8-MG09-WS: GPS measurement in bare rock areas		
Discipline:	Geoscience		
Principal Investigator:	Yuichi Aoyama, Assistant Professor, NIPR Phone: +81-887-57-0712 Email: aoyama@nipr.ac.jp@kochi-tech.ac.jp		
Main Activity/ Remarks:	Coordinates of fixed points in bare rock areas around the Lützow-Holmbukta and in the Riiser-Larsen Mountains areas were monitored by 24 hours GPS measurements every summer or year-round unmanned GPS measurement systems.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
Padda			
Skallen			
Rundvågshetta			
Tottsuki Misaki			
Ongulgalten			
Skarvsnes			
Langhovde			
Mukai Iwa			

Project Name/Number:	8-MG10-S: Broad-band seismic monitoring observation at the Lützow-Holmbukta Region, East Antarctica		
Discipline:	Geoscience		
Principal Investigator:	Masaki Kanao, Associate Professor, NIPR Phone: +81-42-512-0713 Email: kanao@nipr.ac.jp		
Main Activity/ Remarks:	Structure and dynamics of the Earth, as viewed from Antarctica, together with seismicity and characteristics of wave propagation were investigated by using portable broad-band seismometer (CMG-40T) at the Lützow-Holmbukta Region, East Antarctica.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
Rundvågshetta			
S16			

Skallen

Langhovde

Project Name/Number:	8-MG11-S: Marine geophysical obseravations		
Discipline:	Geoscience		
Principal Investigator:	Yoshifumi Nogi, Professor, NIPR Phone: +81-42-512-0711 Email: nogi@nipr.ac.jp		
Main Activity/ Remarks:	Ocean gravity and geomagnetism were measured on board the R/V Shirase. Sea bottom pressure was monitored with a pressure gauge installed and recovered every summer on the sea bottom about 4000 meter deep in the Southern Ocean.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
			Areas of Operation
Along cruise track of R/V Shirase between Fremantle and Syowa			

Project Name/Number:	8-MG12-S: Monitoring of ground temperature.	
Discipline:	Geoscience	
Principal Investigator:	Hideki Miura, Associate Professor, NIPR Email: miura@nipr.ac.jp	
Main Activity/ Remarks:	Data of ground temperatures below 2m depth were collected periodically every 1 hour all year-round at Nishi-Ongul To and Langhovde.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
	Langhovde	
	Nishi-Ongul To	

Project Name/Number:	8-MG13-W: DORIS observation	
Discipline:	Geoscience	
Principal Investigator:	Koichiro Doi, Associate Professor, NIPR Phone: +81-42-512-0701 Email: doi@nipr.ac.jp	
Main Activity/ Remarks:	Monitoring of a fixed point location in Syowa Station was carried out with a DORIS antenna operating all year-round.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
	Syowa	

Project Name/Number:	8-MP1-W: Monitoring of atmospheric greenhouse gases and related constituents	
Discipline:	Atmospheric Science	
Principal Investigator:	Daisuke Goto, Assistant Professor, NIPR Phone: +81-42-512-0673 Email: goto.daisuke@nipr.ac.jp	
Main Activity/ Remarks:	Monitoring of atmospheric CO ₂ , CH ₄ , CO and O ₂ concentrations was carried out all year-round at Syowa Station. Whole air samples were collected periodically for subsequent analyses in Japan.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
	Syowa	

Project Name/Number:	8-MP2-W: Surface-based remote-sensing observation of clouds and aerosol	
Discipline:	Meteorology and glaciology	
Principal Investigator:	Masataka Shiobara, Associate Professor, NIPR Phone: +81-42-512-0678 Email: shio@nipr.ac.jp	
Main Activity/ Remarks:	All-sky images were recorded every 10 minutes to monitor cloud cover at Syowa Station all year-round. Vertical distribution of clouds and aerosols were monitored continuously with a micro-pulse lidar at Syowa Station. A sky radiometer was installed at Syowa Station to monitor solar radiation and aerosol optical properties from mid-August to early May.	
Link (URL):	http://mplnet.gsfc.nasa.gov/	
Additional Information:		

Operating Period:	From:	To:	
			Areas of Operation
Syowa			

Project Name/Number:	8-MP3-W: Observations of aerosol size distributions	
Discipline:	Meteorology and glaciology	
Principal Investigator:	Masataka Shiobara, Associate Professor, NIPR Phone: +81-42-512-0678 Email: shio@nipr.ac.jp	
Main Activity/ Remarks:	Size distribution of aerosols was continuously monitored by an optical particle counter and a condensation nucleus counter at Syowa Station all year-round.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
	Syowa	

Project Name/Number:	8-MP4-W: Monitoring of Antarctic ice sheet mass balance	
Discipline:	Glaciology	
Principal Investigator:	Hideaki Motoyama, Professor, NIPR Phone: +81-42-512-0680 Email: motoyama@nipr.ac.jp	
Main Activity/ Remarks:	Sea ice thickness and snow depth measurements along a route from Syowa Station to S16 site via Tottuki Misaki (Point) in winter	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
	Syowa to S16 site	

Project Name/Number:	8-MS1-W: Acquisition of Earth Observation Satellite Data in the Antarctic	
Discipline:	Inter-disciplinary	
Principal Investigator:	Hiroshi Miyaoka, Professor, NIPR Phone: +81-42-512-0662 Email: miyaoka@nipr.ac.jp	
Main Activity/ Remarks:	NOAA, DMSP, AQUA, TERRA, METOP-1 and NPP satellites data have been routinely received and stored with L/S/X-band TeraScan System at Syowa Station.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
	Syowa	

Project Name/Number:	8-MU1-W: Optical observation of auroras	
Discipline:	Space and upper atmospheric sciences	
Principal Investigator:	Akira Kadokura, Professor, NIPR Phone: +81-42-512-0631 Email: kadokura@nipr.ac.jp	
Main Activity/ Remarks:	Optical auroral 2-dimensional activities were monitored with the following five all-sky imagers during March to October at Syowa Station: 1. EAI (Electron Auroral Imager), monochromatic digital CCD imager, 427.8 nm 2. EAI-2 (Electron Auroral Imager), monochromatic digital CCD imager, 557.7 nm 3. PAI (Proton Auroral Imager), monochromatic digital CCD imager, 485.0 nm 4 PAI-2 (Proton Auroral Imager), monochromatic digital CCD imager, 480.5 nm 5. CDC (Color Digital Camera), full color	
Link (URL):		
Additional Information:		

Operating Period:	From:	To:	
			Areas of Operation
Syowa			

Project Name/Number:	8-MU2-W: Monitoring of Cosmic Noise Absorption (CNA)
Discipline:	Space and upper atmospheric sciences
Principal Investigator:	Hisao Yamagishi, Professor, NIPR Email: yamagisi@nipr.ac.jp
Main Activity/ Remarks:	CNA observation with broad-beam riometer has been continued at 30MHz. Imaging riometer at 38.2MHz has been suffered from EMI from the nearby radar since 2012. We have been trying to reduce the EMI by changing the sampling rate of the receiver and blanking the noise with the radar transmitter pulse.
Link (URL):	
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Syowa
	Nishi-Ongul To

Project Name/Number:	8-MU3-WS: Monitoring of natural ULF/ELF/VLF emissions
Discipline:	Space and upper atmospheric sciences
Principal Investigator:	Hisao Yamagishi, Professor, NIPR Email: yamagisi@nipr.ac.jp
Main Activity/ Remarks:	Natural ULF and ELF/VLF electromagnetic waves have been observed with 3-axis search coil magnetometer and 10m delta loop antennas, respectively. A new ELF/VLF receiving system was installed in 2013/2014 and it has been tested in parallel with the old one.
Link (URL):	
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Nishi-Ongul To

Project Name/Number:	8-MU4-W: Geomagnetism observation
Discipline:	Space and upper atmospheric sciences
Principal Investigator:	Akira Kadokura, Professor, NIPR Phone: +81-42-512-0631 Email: kadokura@nipr.ac.jp
Main Activity/ Remarks:	Following geomagnetic observations were carried out at Syowa Station through the year: 1. Absolute value measurement of geomagnetic field, once per month 2. Three-component magnetic field variation measurement, continuous
Link (URL):	
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Syowa

Project Name/Number:	8-006-S: Observation of the Southern Ocean using surface drifters -deployments of drifters from Shirase
Discipline:	Physical oceanography and meteorology
Principal Investigator:	Graeme Ball, Manager, Marine Operations Group, Bureau of Meteorology, Australia Phone: +61 3 9669 4203 Email: g.ball@bom.gov.au
Main Activity/ Remarks:	Seven surface drifting buoys were deployed from R/V Shirase in response to the request of the Australian Bureau of Meteorology. Location and sea surface data for each buoy has been transmitted to the satellite.

Link (URL):	
Additional Information:	
Operating Period:	From: To:
Areas of Operation	
Shirase	

Project Name/Number:	8-008-S: Study of ocean variability in the Southern Ocean by Argo floats	
Discipline:	Physical oceanography	
Principal Investigator:	Toshio Suga, Team Leader, Japan Agency for Marine-Earth Science and Technology Phone: +81-46-867-9845 Email: hiranom@jamstec.go.jp	
Main Activity/ Remarks:	One profiling float was deployed from R/V Shirase in the Southern Ocean. Temperature and salinity profiles measured with floats has been acquired via ARGOS system.	
Link (URL):	http://www.jamstec.go.jp/ARGO/argo_web/argo/index_e.html	
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Shirase		

Project Name/Number:	8-009-S: Cloud fraction with an all-sky camera onboard R/V Shirase	
Discipline:	Physical oceanography	
Principal Investigator:	Makoto Kuji, Nara Women's University Phone: +81-8742-20-3044 Email: makato@ics.nara-wu.ac.jp	
Main Activity/ Remarks:	An all-sky camera, mounted on R/V Shirase, was used to detect marine clouds. The cloud amount product is useful to validate that from the satellite remote sensing.	
Link (URL):	http://www.jamstec.go.jp/J-ARGO/index_e.html	
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Along cruise track of R/V Shirase		

Project Name/Number:	8-O10-S: Effect of solar UV radiation on life in Antarctica, and psychrophile-origin cellulose	
Discipline:	Bioscience	
Principal Investigator:	Tetsuya Takahashi, Professor, Shimane University Phone: +81-852-32-6350 Email: ttetsuya@edu.shimane-u.ac.jp	
Main Activity/ Remarks:	Collagen sheets were used in a unique evaluation method to examine skin damage caused by ultraviolet (UV) light of short wavelength during a season of the Antarctic ozone hole.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Syowa		

Project Name/Number:	8-O11-S: Observation on spatial and temporal variability of primary productivity in the Kerguelen plateau, Southern Ocean using ARGO float	
Discipline:	Bioscience	
Principal Investigator:	Tsuneo Odate, Professor, NIPR Phone: +81-42-512-0738 Email: odate@nipr.ac.jp	
Main Activity/ Remarks:	To estimate temporal and spatial variability of chlorophyll a and primary production using ARGO float, ARGO float was deployed near Kerguelen plateau. The estimated observation period is about two years.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:

Project Name/Number:	8-O12-S: Monitoring for long term changes in primary productivity using fast repetition rate fluorometry (FRRf)	
Discipline:	Bioscience	
Principal Investigator:	Andrew McMinn, University of Tasmania Phone: +61 3 6226 2980 Email: Andrew.McMinn@utas.edu.au	
Main Activity/ Remarks:	To estimate temporal and spatial variability of phytoplankton physiology, parameters of primary production were collected using FRRf.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Along cruise track of R/V Shirase between Fremantle and Syowa		
Along cruise track of R/V Shirase between Syowa and Fremantle		

Project Name/Number:	8-O13-S: Analysis of the trajectory of air mass in the Antarctic troposphere and stratosphere by means of 7Be sampling	
Discipline:	Meteorology and glaciology	
Principal Investigator:	Shigeki Tasaka, Professor, Gifu University Phone: +81-58-293-2055 Email: tasaka@gifu-u.ac.jp	
Main Activity/ Remarks:	The air sampling for detection of 7Be was carried out on R/V Shirase between Australia and Syowa station, Antarctica. The results will provide a new information about the transportation of the atmospheric constituents.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Along cruise track of R/V Shirase		
S17		
Syowa		

Project Name/Number:	8-P09-S: The atmospheric circulation and transport of moisture and aerosols in the Antarctic coastal region in summer season	
Discipline:	Meteorology and glaciology	
Principal Investigator:	Naohiko Hirasawa. Assistant Professor, NIPR Phone: +81-42-512-0685 Email: hira.n@nipr.ac.jp	
Main Activity/ Remarks:	1. Free-lift meteorological sonde (Syowa, S17, Shirase) 2. Tethered meteorological sonde and aerosol counter (Syowa, S17) 3. UAV-borne meteorological sonde and aerosol counter (S17) 4. H2O isotope measurement (Shirase)	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Along cruise track of R/V Shirase		
S17		
Syowa		

Project Name/Number:	8-P30-S: Researches on the succession of the Antarctic terrestrial ecosystem through the analyses of the matter cycles and physiological responses of biota
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Discipline:	Bioscience		
Principal Investigator:	Sakae Kudoh, Associate Professor, NIPR Phone: +81-42-512-0739 Email: skudoh@nipr.ac.jp		
Main Activity/ Remarks:	Limnological survey of lakes, biological sampling, and environmental observations using automated equipments in Sôya Kaigan (Coast)		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
			Areas of Operation
Sôya Kaigan			

Project Name/Number:	8-P34-S: Direct observation of the outflow of Antarctic Bottom Water and sea-ice thickness	
Discipline:	Physical oceanography, Sea ice physics	
Principal Investigator:	Yasushi Fukamachi, Associate Professor, Institute of Low Temperature Science, Hokkaido University Phone: +81-11-706-7432 Email: yasuf@lowtem.hokudai.ac.jp	
Main Activity/ Remarks:	A mooring deployed during JARE54 was successfully recovered, but the two shallowest moorings deployed during JARE52 were not recovered.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Off Cape Darnley		

Project Name/Number:	8-P35-S: Study on ionospheric perturbation observed by monitoring VLF transmitter signals in Syowa	
Discipline:	Space and upper atmospheric sciences	
Principal Investigator:	Yasuhide Hobara Professor, Department of Communication Engineering and Informatics, Graduate School of Informatics and Engineering, The University of Electro-Communications Phone: +81-42-443-5154 Email: hobara@ee.uec.ac.jp	
Main Activity/ Remarks:	The cross-loop magnetic antenna with pre- and main amplifiers and data acquisition system were installed in Syowa and started test observations. Observations on ionospheric perturbations (D and E regions) using the magnetic signal amplitude and phase were carried out for statistical studies on ionosphere from (1) energetic particle precipitation from the magnetosphere, (2) global thunderstorm activities, and (3) high energy astronomical events etc.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Syowa		

Project Name/Number:	8-P36-S: Ionosphere-Atmosphere-Ocean-Cryosphere-Geosphere interaction by infrasonic observations	
Discipline:	Geoscience, Atmospheric science	
Principal Investigator:	Masa-yuki Yamamoto, Associate Professor, Kochi University of Technology Phone: +81-887-57-2112 Email: yamamoto.masa-yuki@kochi-tech.ac.jp	
Main Activity/ Remarks:	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 icesheets 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.	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Rundvågshetta		
S16		
Skallen		
Syowa		
Langhovde		

Project Name/Number:	8-P37-WS: Longitudinal displacement of conjugate auroras as observed by low-power autonomous aurora observation system		
Discipline:	Space and upper atmospheric sciences		
Principal Investigator:	Hisao Yamagishi, Professor, NIPR Phone: +81-42-512-0657 Email: yamagisi@nipr.ac.jp		
Main Activity/ Remarks:	Automated magnetometers at Mizuho Station, H68 and Skallen were maintained.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
Skallen			
Mizuho			
H68			

Project Name/Number:	8-P39-W: Study on magnetosphere-ionosphere coupling processes with SuperDARN radars and ground-based optical observations		
Discipline:	Space and upper atmospheric sciences		
Principal Investigator:	Akira Sessai Yukimatu, Associate Professor, NIPR Phone: +81-42-512-0657		
Main Activity/ Remarks:	With SENSU SuperDARN HF radars at Syowa station and auroral all-sky imager network at Zhongshan and South Pole stations under FOVs of the SENSU radars, simultaneous observation was conducted to reveal M-I (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.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	South Pole		
	Syowa		
	Zhongshan		

Project Name/Number:	8-P40-WS: Sea ice and hydrographic observations onboard R/V Shirase and in Lützow-Holmbukta		
Discipline:	Physical oceanography, Sea ice physics		
Principal Investigator:	Shuki Ushio, Associate Professor, NIPR Phone: +81-42-512-0676 Email: ushio@nipr.ac.jp		
Main Activity/ Remarks:	Measurements of sea ice thickness, ice concentration, water temperature/salinity profile, and water current profile. Monitoring of vessel movement during ice navigation.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Along cruise track of R/V Shirase		
	Near syowa		

Project Name/Number:	8-P41-W: Study on Global Lightning and Global Circuit Activities and Their Relation to Climate Changes Monitored from Polar Region		
Discipline:	Atmospheric electricity Space and upper atmosphere sciences		
Principal Investigator:	Mitsuteru Sato, Faculty of Science, Hokkaido University Phone: +81-11-706-2763 Email: msato@ep.sci.hokudai.ac.jp		
Main Activity/ Remarks:	Continuous measurements of ELF electromagnetic waves in the frequency range of 1-100Hz and atmospheric DC electric field were 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.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Syowa for for ELF observation		
	Syowa for DC electric field obs		

Project Name/Number:	8-P42-S: Development of infrared and terahertz astronomy at Antarctica		
Discipline:	Astronomy		
Principal Investigator:	Naomasa Nakai, Professor, Physics, Graduate School of Pure and Applied Sciences, University of Tsukuba Phone: +81-29-853-4281 Email: nakai@physics.px.tsukuba.ac.jp		
Main Activity/ Remarks:	Inclination of the tower at which a telescope will be installed was continuously measured. Automatic power supply, PLATO-F, and solar cells was used to operate the measurement system.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
			Areas of Operation
			Dome Fuji

Project Name/Number:	8-P43-W: Study on conjugacy of auroral activities during the maximum to descending phase of solar activity cycle		
Discipline:	Space and upper atmosphere sciences		
Principal Investigator:	Akira Kadokura, Professor, NIPR Phone: +81-42-512-0631 Email: kadokura@nipr.ac.jp		
Main Activity/ Remarks:	Conjugate observations of auroral phenomena between Iceland and Syowa Station by using auroral imagers, scanning photometer, magnetometers, VLF and ULF wave receivers, and riometers.		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Syowa		

Project Name/Number:	8-P47-WS: Study on the material cycle over the Southern Ocean and Antarctic coast by ship-born, air-born, and ground based aerosol observations		
Discipline:	Atmospheric sciences		
Principal Investigator:	Masahiko Hayashi, Professor, Faculty of Science, Fukuoka University Phone: +81-871-6631 ex.6168 Email: mhayashi@fukuoka-u.ac.jp		
Main Activity/ Remarks:	1) Observation of optical property and aerosol concentration along cruise track of R/V Shirase by ship borne instruments, skyradiometer, condensation particle counter, optical particle counter, nephelometer, aethalometer, ceilometer, albedo monitor, extinction coefficient monitor, 2) Observation of aerosol size distribution up to 30 km in altitude over Syowa Station by balloon borne optical particle counter, 3) Measurement of optical absorption coefficient of aerosol at Syowa Station by an aethalometer, 4) Observation of meridional distribution of aerosol size distribution and ozone concentration around tropopause by balloon soundings, 5) Observation of aerosol and sampling using tethered balloon and UAV		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Along cruise track of R/V Shirase		
	S17		
	Launched from R/V Shirase		
	Syowa		

Project Name/Number:	8-P48-S: Precise monitoring for ice flows of Antarctic ice sheet and ice stream with GPS		
Discipline:			
Principal Investigator:	Yuichi Aoyama, Assistant Professor, NIPR Phone: +81-887-57-0712 Email: aoyama@nipr.ac.jp@kochi-tech.ac.jp		
Main Activity/ Remarks:	The temporal and spatial variations in the ice flows of Honnør Hyôga (Glacier) and Skallen Hyôga (Glacier) were measured with network of six unmanned GPS units in the summer season. A year-round unmanned GPS unit was installed on Shirase Hyôga (Glacier).		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Honnør Hyôga (Glacier)		
	Shirase Hyôga (Glacier)		
	Skallen Hyôga (Glacier)		

Project Name/Number:	8-TC1-S: Bathymetric survey	
Discipline:	Oceanography	
Principal Investigator:	Yo Iwabuchi, Director, Hydrographic Surveys Division, Hydrographic and Oceanographic Department, Japan Coast Guard Phone: +81-3-5500-7120	
Main Activity/ Remarks:	Bathymetric survey	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
	Lützow-Holmbukta	

Project Name/Number:	8-TC2-WS: Tidal observation		
Discipline:	Oceanography		
Principal Investigator:	Hiroyuki Yoritaka, Director, Environmental and Oceanographic Research Division Hydrographic and Oceanographic Department, Japan Coast Guard Phone: +81-3-5500-7120		
Main Activity/ Remarks:	Tidal observation		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	Langhovde		
	Syowa		

Project Name/Number:	8-TG1-S: Geodetic observations		
Discipline:	Geodesy		
Principal Investigator:	Takuya Nojiri, Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6264 Email: gsi-antarctic@ml.mlit.go.jp		
Main Activity/ Remarks:	Precise Geodetic Observations (Absolute Gravity Survey)		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	IAGBN(A)		

Project Name/Number:	8-TG1-S: Geodetic observations		
Discipline:	Geodesy		
Principal Investigator:	Takuya Nojiri, Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6264 Email: gsi-antarctic@ml.mlit.go.jp		
Main Activity/ Remarks:	Leveling		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
	No.2316		
	No.2315		
	No.1029		
	No.1028		
	No.1027		
	No.1025		
	No.4601		
	No.2317		
	No.1030		

Project Name/Number:	8-TG1-S: Geodetic observations	
Discipline:	Geodesy	
Principal Investigator:	Takuya Nojiri, Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6264 Email: gsi-antarctic@ml.mlit.go.jp	
Main Activity/ Remarks:	Precise Geodetic Observations (Relative Gravity Survey)	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
No.SN-1		
No.4619		
No.5601		
No.5602		
No.5603		
IAGBN(A)		

Project Name/Number:	8-TG1-S: Geodetic observations	
Discipline:	Geodesy	
Principal Investigator:	Takuya Nojiri, Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6264 Email: gsi-antarctic@ml.mlit.go.jp	
Main Activity/ Remarks:	Precise Geodetic Observations (GNSS Observation)	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
No.SN-1		
No.5601		
SYOG (IGS)		
Langhovde		
No.5602		
No.5603		
No.3		

Project Name/Number:	8-TG1-S: Geodetic observations	
Discipline:	Geodesy	
Principal Investigator:	Takuya Nojiri, Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6264 Email: gsi-antarctic@ml.mlit.go.jp	
Main Activity/ Remarks:	Precise Geodetic Observations (Geoid Survey)	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
No.LG-SUII		

Project Name/Number:	8-TG2-S: Geodetic Survey	
Discipline:	Geodesy	
Principal Investigator:	Takuya Nojiri, Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6264 Email: gsi-antarctic@ml.mlit.go.jp	
Main Activity/ Remarks:	Aerial photography	
Link (URL):		
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Higashi-Ongul To area		
Nishi-Ongul To area		

Project Name/Number:	8-TG2-S: Geodetic Survey	
Discipline:	Geodesy	

Principal Investigator:	Takuya Nojiri, Deputy Director of International Affairs Div., Planning Dept., Geospatial Information Authority of Japan Phone: +81-29-864-6264 Email: gsi-antarctic@ml.mlit.go.jp		
Main Activity/ Remarks:	Signal for aerial photography		
Link (URL):			
Additional Information:			
Operating Period:	From:	To:	
			Areas of Operation
No.5602			

Project Name/Number:	8-TJM1-W: Surface synoptic observation
Discipline:	Meteorology
Principal Investigator:	Masato Fukuda, Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp
Main Activity/ Remarks:	Air Pressure, Air Temperature, Humidity, Wind speed, Wind direction, Sunshine duration, Global solar radiation
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Syowa

Project Name/Number:	8-TJM2-W: Upper-air observation
Discipline:	Meteorology
Principal Investigator:	Masato Fukuda, Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp
Main Activity/ Remarks:	Radiosonde/ Atmospheric pressure, Air temperature, Humidity, Wind speed, Wind direction
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Syowa

Project Name/Number:	8-TJM3-W: Ozone observations
Discipline:	Meteorology
Principal Investigator:	Masato Fukuda, Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp
Main Activity/ Remarks:	Total ozone, Umkehr, Surface ozone Ozonesonde/ Ozone amount, Atmospheric pressure
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Syowa

Project Name/Number:	8-TJM4-W: Radiation observation
Discipline:	Meteorology
Principal Investigator:	Masato Fukuda, Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp
Main Activity/ Remarks:	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
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Operating Period:	From: To:

Project Name/Number:	8-TJM5-W: Weather analysis
Discipline:	Meteorology
Principal Investigator:	Masato Fukuda, Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp
Main Activity/ Remarks:	Weather Conditions
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	Syowa

Project Name/Number:	8-TJM6-W: Another observation
Discipline:	Meteorology
Principal Investigator:	Masato Fukuda, Head, Office of Antarctic Observation, Observation Department, Japan Meteorological Agency (JMA) Phone: +81-3-3211-8409 Email: antarctic@met.kishou.go.jp
Main Activity/ Remarks:	Weather robot observation
Link (URL):	http://www.jma.go.jp/jma/indexe.html
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	S17

Project Name/Number:	8-TN1-WS: Ionospheric observations
Discipline:	Ionospheric Research
Principal Investigator:	Tsutomu Nagatsuma, Research Manager, Applied Electromagnetic Research Institute, National Institute of Information and Communications Technology Phone: +81-42-327-6095 Email: tnagatsu@nict.go.jp
Main Activity/ Remarks:	Ionospheric vertical sounding, GPS scintillation monitoring
Link (URL):	http://wdc.nict.go.jp/ionog/10c_viewer/o_index.html
Additional Information:	
Operating Period:	From: To:
	Areas of Operation
	SYO1
	SYO2
	Syowa
	SYO3

Project Name/Number:	8-TN2-WS: Data acquisition for monitoring space weather conditions
Discipline:	Space Weather
Principal Investigator:	Tsutomu Nagatsuma, Research Manager, Applied Electromagnetic Research Institute, National Institute of Information and Communications Technology Phone: +81-42-327-6095 Email: tnagatsu@nict.go.jp
Main Activity/ Remarks:	Data acquisition of ionospheric vertical sounding, GPS scintillation monitoring, magnetic field variations, and cosmic noise absorption

Link (URL):	http://wdc.nict.go.jp/ionog/10c_viewer/o_index.html		
Additional Information:			
Operating Period:	From:	To:	
	Areas of Operation		
Syowa			

Project Name/Number:	8-TN3-S: Mobile ionospheric observations	
Discipline:	Ionospheric Research	
Principal Investigator:	Tsutomu Nagatsuma, Research Manager, Applied Electromagnetic Research Institute, National Institute of Information and Communications Technology Phone: +81-42-327-6095 Email: tnagatsu@nict.go.jp	
Main Activity/ Remarks:	The phase and field strength of LF standard time and frequency signals along cruise track of R/V Shirase	
Link (URL):	http://wdc.nict.go.jp/ionog/10c_viewer/o_index.html	
Additional Information:		
Operating Period:	From:	To:
	Areas of Operation	
Along cruise track of R/V Shirase		

Operational Information – National Expeditions - Stations

Name:	Syowa Station
Type:	Wintering
Location:	Site Name: Syowa Station Lat: 69° 00´ 25´´ S Long: 39° 35´ 01´´ E
Maximum Population:	130
Medical Facilities:	Minimum required surgical operation facilities and dental emergency facilities are equipped. One or two medical doctors stay at the station.
Remarks / Description:	Location: Higashi-Ongul To (Island), Lützow-Holmbukta, Elevation: 28.9m, Established: January 29, 1957, Major Field Activities: Oversnow traverse to Dome Fuji Station / Biological and geophysical observations in Lützow-Holmbukta area

Operational Information – National Expeditions - Vessels

Name:	R/V Shirase
Country of Registry:	Japan
Number of Voyages:	0
Maximum Crew:	179
Maximum Passengers:	80
Remarks:	Departure date: November 30, 2014, Port of Departure: Fremantle, Australia, Arrival Date: March 9, 2015, Port of Arrival: Fremantle, Australia Areas of Operation: Lützow-Holmbukta, Purpose: Transportation of cargo and personnel / Support of oceanographic and biological observations

Operational Information – National Expeditions - Aircraft

Type:	AS350B2 (chartered by a New Zealand Company)
Category:	
Period From:	23/12/2014
Period To:	15/02/2015
Remarks:	transport cargos and personnel / support scientific field operations

Type:	Bell212 (chartered by a New Zealand Company)
Category:	
Period From:	16/12/2014
Period To:	15/02/2015
Remarks:	transport cargos and personnel / support scientific field operations

Type:	CH-101 (on board Shirase)
Category:	
Period From:	16/12/2014
Period To:	03/02/2015
Remarks:	transport cargos and personnel / support scientific field operations

Operational Information – National Expeditions - Research Rockets

Location Launch:	Site Name: Along cruise track of R/V Shirase Lat: Long:
Date/Period/Frequency:	20 times in December, 2014 and in February, 2015
Direction:	All directions, depending on wind
Max. Altitude:	25000
Impact Area:	Within a radius of 100km from the site
Type:	Rubber balloon
Specifications:	Radiosonde
Purpose:	Atmospheric circulation measurement
Project Title/Number:	Study on the material cycle over the Southern Ocean and Antarctic coast by ship-born, air-born, and ground based aerosol observations

Location Launch:	Site Name: S17 Lat: 69° 01´ 30´´ S Long: 40° 04´ 00´´ E
Date/Period/Frequency:	50 times in January, 2015
Direction:	All directions, depending on wind
Max. Altitude:	25000
Impact Area:	Within a radius of 100km from the site
Type:	Rubber balloon
Specifications:	Radiosonde
Purpose:	Atmospheric circulation measurement
Project Title/Number:	Study on the material cycle over the Southern Ocean and Antarctic coast by ship-born, air-born, and ground based aerosol observations

Location Launch:	Site Name: Along cruise track of R/V Shirase Lat: Long:
Date/Period/Frequency:	3 times during December, 2014
Direction:	All directions, depending on wind
Max. Altitude:	30000
Impact Area:	Within a radius of 100km from the site
Type:	Rubber balloon
Specifications:	OPC (optical particle counter)
Purpose:	Aerosol measurement
Project Title/Number:	Study on the material cycle over the Southern Ocean and Antarctic coast by ship-born, air-born, and ground based aerosol observations

Location Launch:	Site Name: Syowa Station Lat: 69° 00 ' 22 ' ' S Long: 39° 35 ' 24 ' ' E
Date/Period/Frequency:	30 times from December, 2014 to January, 2015
Direction:	All directions, depending on wind
Max. Altitude:	25000
Impact Area:	Within a radius of 100km from the site
Type:	Rubber balloon
Specifications:	Radiosonde
Purpose:	Atmospheric circulation measurement
Project Title/Number:	Study on the material cycle over the Southern Ocean and Antarctic coast by ship-born, air-born, and ground based aerosol observations

Location Launch:	Site Name: Syowa Station Lat: 69° 00 ' 22 ' ' S Long: 39° 35 ' 24 ' ' E
Date/Period/Frequency:	4 times, throughout the year
Direction:	All directions, depending on wind
Max. Altitude:	30000
Impact Area:	Within a radius of 100km from the site
Type:	Rubber balloon
Specifications:	OPC (optical particle counter)
Purpose:	Aerosol measurement
Project Title/Number:	Study on the material cycle over the Southern Ocean and Antarctic coast by ship-born, air-born, and ground based aerosol observations

Location Launch:	Site Name: Syowa Lat: 69° 00 ' 19 ' ' S Long: 39° 34 ' 52 ' ' E
Date/Period/Frequency:	Once or twice a week, throughout the year
Direction:	All directions, depending on wind
Max. Altitude:	30000
Impact Area:	Within a radius of 200-300km from the site
Type:	Rubber balloon
Specifications:	ECC (Electrochemical Concentration Cell) Type Ozone sonde
Purpose:	Ozone vertical profile measurement
Project Title/Number:	Meteorological observations

Location Launch:	Site Name: Syowa Lat: 69° 00´ 19´´ S Long: 39° 34´ 52´´ E
Date/Period/Frequency:	Twice daily, throughout the year
Direction:	All directions, depending on wind
Max. Altitude:	30000
Impact Area:	Within a radius of 200-300km from the site
Type:	Rubber balloon
Specifications:	Radiosonde
Purpose:	Aerological observation
Project Title/Number:	Meteorological observations

Operational Information – Non Governmental Expeditions - Vessel-Based Operations

No new information have been provided during the reported period.

Operational Information – Non Governmental Expeditions - Land-Based Operations

No new information have been provided during the reported period.

Environmental Information - Waste Disposal and Waste Management (Waste Management Plans)

Title:	Waste Management Guide
Fixed Site/Field Camp/Ship:	Station and Field
Objective:	Management of field Wastes, Station Wastes
Implementation Report:	Disposal of wastes in the stations and fields is implemented in accordance with Annex III of the Protocol on Environmental Protection to the Antarctic Treaty and the relevant national legislation. Sewage and gray water from summer accommodation are treated by non-biological method (Coagulation-Sedimentation Method), and Sewage and gray water from winter accommodation are treated by contact aeration process and the treated water is discharged into the sea. All the wastes are sorted and treated properly. Combustible wastes are disposed of by a two-stage incinerator. The ash is taken back to Japan. Wet food waste is treated by a dehydrating instrument. The residue is directly taken back to Japan or incinerated and its ash is also taken back to Japan. The other waste is taken back to Japan.
	Organisation:
	Name: Yutaka Katsuta
Contact Point:	Job Title or Position: Head of Logistics Section, National Institute of Polar Research
	Phone: +81-42-512-0779
	Email: ykatsuta@nipr.ac.jp

Environmental Information - Waste Disposal and Management (Inventory of Past Activities)

Activity Type:	Scientific observation
Location:	Site Name: Asuka Lat: 71° 31 ' 29 ' ' S Long: 24° 07 ' 50 ' ' E
Description of Activity:	It was established on March 26, 1985 and had been occupied to 1991. It is now temporarily closed.
Period of Activity:	Date Begin: Date End:
Remaining Equipment or Facilities:	Five huts including diesel generators, communication antennas and a small wind turbine.

Activity Type:	Scientific observation, Logistics
Location:	Site Name: Mizuho Lat: 70° 41 ' 58 ' ' S Long: 44° 16 ' 52 ' ' E
Description of Activity:	It was established on July 21, 1970 and had been occupied until 1986. It is now temporarily closed.
Period of Activity:	Date Begin: Date End:
Remaining Equipment or Facilities:	Five huts including diesel generators, communication antennas and an observation tower.

Environmental Information - Area Protection and Management (Permit, Visit and Activities)

No new information have been provided during the reported period.

Environmental Information - Area Protection and Management (Change or Damage)

No change or damage was observed during this reporting period.

Other Information - Relevant National Legislation

No new information have been provided during the reported period.