

MEMBER COUNTRY:	France					
National Report to SCAR for year: 2013-2014						
Activity	Contact Name	Address	Telephone	Fax	Email	web site
Committee						
CNFRA - Comité National Français des Recherches Arctiques et Antarctiques	SOLIGNAC Amaury (General Secretary)	TAAF-IPEV, 34 Bd de Sébastopol, 75004 PARIS, FRANCE	33 [0]6 61 98 14 46	33 (0)9 56 31 03 57	amaury.solignac@ice-berg.fr	www.cnfra.org
SCAR Delegates						
1) Delegate	SCHLICH Roland	EOST, 5 rue René Descartes, 67084 STRASBOURG cedex, France	33 (0)3 88 45 01 91	33 (0)3 88 60 38 87	Roland.Schlich@unistra.fr	
2) Alternate Delegate	RACCURT Mireille	Laboratoire d'Ecologie des Hydrosystèmes Naturels et Antropisés - LEHNA, Université Claude Bernard Lyon1, 43 boulevard du 11 novembre 1918, 69622 VILLEURBANNE Cedex, France	33 (0)6 63 73 82 47		mireille.raccurt@univ-lyon1.fr	
Standing Scientific Groups						
Life Sciences						
1)	BACHELARD Claude	TAAF-IPEV, 34 Bd de Sébastopol, 75004 PARIS, FRANCE	33 (0)1 56 91 50 30	33 (0)1 56 91 50 35	bachelard.claude@gmail.com	
2)	HULLÉ Maurice	INRA-UMR IGEPP, B.P. 35327, 35653 Le Rheu Cedex, France	33(0)2 23 48 51 67		maurice.hulle@rennes.inra.fr	
3)	KOUBBI Philippe	Unité Biologie des organismes et écosystèmes aquatiques (BOREA, UMR 7208), Sorbonne Universités, Muséum national d'Histoire naturelle, Université Pierre et Marie Curie, Université de Caen Basse-Normandie, CNRS, IRD; CP26, 57 rue Cuvier 75005 Paris, France.	33 (0)1 40 79 30 95		philippe.koubbi@upmc.fr	

4)	ROPERT-COUDERT Yan	IPHC-DEPE - CNRS, 23 rue Becquerel, 67087 Stasbourg Cedex, France	33 (0)3 88 10 69 36	33 (0)3 88 10 69 44	docyaoude@gmail.com	
Geosciences						
1)	BASCOU Jérôme	Université Jean Monnet - UMR CNRS 6524 "Magmas et Volcans" 23 rue du Dr Paul Michelon, 42023 St-Etienne	33 (0)4 77 48 51 24	33 (0)4 77 48 51 08	jerome.bascou@univ-st-etienne.fr	
2)	CHAMBODUT Aude	EOST, 5 rue René Descartes , 67084 Strasbourg Cedex, France	33 (0)3 68 85 00 81	33 (0)3 68 85 01 25	aude.chambodut@unistra.fr	
3)	MAGGI Alessia	EOST, 5 rue René Descartes, 67084 Strasbourg Cedex, France	33 (0)3 68 85 50 28	33 (0)3 68 85 01 25	alessia.maggi@unistra.fr	
4)	Vacant to be nominated					
Physical Sciences						
1)	FAVIER Vincent	LGGE CNRS, 54 rue Molière, BP96, 38402 St. Martin d'Hères Cedex, France	33 (0)4 76 82 42 68	33(0)4 76 82 42 01	favier@lgge.obs.ujf-grenoble.fr	
2)	FOSSAT Eric	Laboratoire Lagrange, Observatoire de la Côte d'Azur, CS 34229, 06304 Nice Cedex 4, France	33 (0)4 92 00 19 71		Eric.Fossat@oca.eu	
3)	RITZ Catherine	LGGE CNRS, 54 rue Molière, BP96, 38402 St. Martin d'Hères Cedex, France	33 (0)4 76 82 42 34	33 (0)4 76 82 42 01	catherine.ritz@lgge.obs.ujf-grenoble.fr	
4)	SULTAN Emmanuelle	Université Pierre et Marie Curie, LOCEAN-IPSL Case 100, 4 place Jussieu, 75005 PARIS, France	33 (0)1 44 27 75 32		esulod@locean-ipsl.upmc.fr	

Activity	Contact Name	Address	Telephone	Fax	Email	web site
Scientific Research Program						
ITASE						http://www2.umaine.edu/ita/se/
1)	FILY Michel	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	33 (0)4 76 82 42 39	33 (0)4 76 82 42 01	fily@lgge.obs.ujf-grenoble .fr	
2)	FAVIER Vincent	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	33 (0)4 76 82 42 68	33 (0)4 76 82 42 01	favier@lgge.obs.ujf-grenoble.fr	
3)	MAGAND Olivier	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	33 (0)4 76 82 42 32	33(0)4 76 82 42 01	magand@lgge.obs.ujf-grenoble.fr	
ISMSS						http://www.climate-cryosphere.org/activities/groups/ismass
1)	RITZ Catherine (Chairman)	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	33 (0)4 76 82 42 34	33 (0)4 76 82 42 01	catritz@lgge.obs.ujf-grenoble.fr	
EBA (AntEra and AntEco)						
						http://eba.ag/
1)	LEBOUVIER Marc (member of the steering committee)	UMR 6553 CNRS-Univ. Rennes 1, Station Biologique, 35380 Paimpont, France	33 (0)2 99 61 81 75	33 (0)2 99 61 81 87	marc.lebouvier@univ-rennes1.fr	
2)	RENAULT David	UMR 6553 CNRS-Univ. Rennes 1, Campus de Beaulieu, 35042 Rennes, France	33 (0)2 23 23 66 27	33 (0)2 23 23 50 26	david.renault@univ-rennes1.fr	
3)	HULLE Maurice	INRA-UMR IGEPP, B.P. 35327, 35653 Le Rheu cedex, France	33 (0)2 23 48 51 67		maurice.hulle@rennes.inra.fr	
SERCE						
1)	ROGISTER Yves	IPGS-EOST, 5 rue Rene Descartes, 67084 Strasbourg Cedex			Yves.rogister@unistra.fr	

Activity	Contact Name	Address	Telephone	Fax	Email	web site
Scientific Research Program (continued)						
AAA						NIR@ANT
1)	TAO Charling (Working Group D)	Centre de Physique des Particules de Marseille, 163 avenue de Luminy, Case 902, 13288 Marseille cedex 09			tao@cprm.in2p3.fr	
2)	TILQUIN Andre (Working group D)	Centre de Physique des Particules de Marseille, 163 avenue de Luminy, Case 902, 13288 Marseille cedex 09			tilquin@cprm.in2p3.fr	
3)	LANGLOIS Maud (Working group D)	CNRS - CENTRE DE RECHERCHE ASTROPHYSIQUE DE LYON, 9 avenue Charles André, 69561 Saint Genis Laval, France	33 04 78 86 83 97		maud.langlois@univ-lyon1.fr	
4)	VAUGLIN Isabelle (working group D)	CNRS - CENTRE DE RECHERCHE ASTROPHYSIQUE DE LYON, 9 avenue Charles André, 69561 Saint Genis Laval, France	33 04 78 86 85 21		isabelle.vauglin@univ-lyon1.fr	
5)	MORETTO Gilberto (Working group D)	IPNL/IN2P3/CNRS, Domaine scientifique de la Doua, Batiment Paul Dirac, 4, rue Enrico Fermi, 69622 Villeurbanne Cedex	33 (0)4 72 43 11 08		Gil.Moretto@ipnl.in2p3.fr	
6)	ABE Lyu (Steering committee member)	Université de Nice-Sophia Antipolis, UMR 7293 Lagrange/CNRS, Observatoire de la Côte d'Azur, 06357 Nice Cedex 2	33 (0)4 92 07 65 93		lyu.abe@unice.fr	

Activity	Contact Name	Address	Telephone	Fax	Email	web site
ACTION GROUPS						
1)						
insert others as needed						
EXPERT GROUPS						
BAMM (Birds and Marine Mammals group)						
1)	Ropert-Coudert Yan (secretary)	IPHC-DEPE, CNRS, 23 rue Becquerel, 67087 Strasbourg Cedex, France	33 (0)3 88 10 69 36	33 (0)3 88 10 69 44	docyaounde@gmail.com	
2)	Charassin Jean-Benoit (member)	Muséum National d'Histoire Naturelle, 43 rue Cuvier, 75231 Paris cedex 05, France	33 (0)3 40 79 31 64	33 (0) 40 79 57 56	jbc@mnhn.fr	
ABI (Antarctic Biodiversity Information Facility)						
1)	Ropert-Coudert Yan (member of the steering committee)	IPHC-DEPE, CNRS, 23 rue Becquerel, 67087 Strasbourg Cedex, France	33 (0)3 88 10 69 36	33 (0)3 88 10 69 44	docyaounde@gmail.com	
GIANT (Geodetic Infrastructure for Antarctica)						
1)	ROGISTER Yves	IPGS-EOST, 5 rue Rene Descartes, 67084 Strasbourg Cedex			yves.rogister@unistra.fr	
SCADM						
1)						
SCAGI						
1)						
SCATS (Standing Committee on the Antarctic Treaty System)						
1)	Ropert-Coudert Yan (member)	IPHC-DEPE, CNRS, 23 rue Becquerel, 67087 Strasbourg Cedex, France	33 (0)3 88 10 69 36	33 (0)3 88 10 69 44	docyaounde@gmail.com	
DATA CENTRE						
French Antarctic metadata are under the administration of IPEV	LEMAIRE Thierry	IPEV- Institut Polaire Français Paul-Emile Victor Technopôle Brest-Iroise, CS 60 075, 29280 Plouzané, FRANCE	33(0)2 98 05 65 00	33(0)2 98 05 65 55	thierry.lemaire@ipev.fr	http://gcmd.gsfc.nasa.gov/KeywordSearch/Home.do?Portal=amd_fr&MetadataType=0
SCAR DATABASE						
Our metadata database and the portal are integrated into the (Global Change Master Directory) GCMD. Data from the Antarctic are accessible via this portal: (Global Change Master Directory).	LEMAIRE Thierry	IPEV - Institut Polaire Français Paul-Emile Victor Technopôle Brest-Iroise - CS 60 075 29280 Plouzané FRANCE	33(0)2 98 05 65 00	33(0)2 98 05 65 55	thierry.lemaire@ipev.fr	http://gcmd.gsfc.nasa.gov/KeywordSearch/Home.do?Portal=amd_fr

A BRIEF SUMMARY OF SCIENTIFIC HIGHLIGHTS*:
Life Sciences programs

Acronym	Coordinator	Institution/Adress	Objectives and scientific highlights	Email	Web site
ORNITHOECO (IPEV Prog 109)	WEIMERSKIRCH Henri	Centre d'Etudes Biologiques de Chizé, 79360 Beauvoir sur Niort	The program uses seabirds and marine mammals as indicators of global changes in the marine ecosystems of the southern ocean. Through a network of 4 sub-antarctic and antarctic observatories, 25 species of the marine top predators and their distribution at sea are monitored since 50 years	henri.weimerskirch@cebc.cnrs.fr	http://www.cebc.cnrs.fr/
ECOPHY (IPEV Prog 137)	LE MAHO Yvon	IPHC-DEPE, CNRS, 23 rue Becquerel, 67087 Strasbourg Cedex, France	Adaptive strategies and population dynamics of penguins under environmental constraints. The program determine the extent to which penguins are able to cope with seasonal and interannual climatic changes and their consequence on the localization and abundance of their marine resources. Ashore automatically tracking and biologging at sea allow us to determine the feeding performance of the birds in relation to their individual experience and fitness, i.e. immunocompetence and body condition.	yvon.lemaho@iphc.cnrs.fr	http://www.iphc.cnrs.fr/
ECONERGIE (IPEV Prog 119)	ROBIN Jean Patrice	IPHC-DEPE, CNRS, 23 rue Becquerel, 67087 Strasbourg Cedex, France	Our research program ECONERGY is devoted to a better understanding of how king penguin (<i>Aptenodytes patagonicus</i>) adults and chicks cope with environmental and energy constraints in their colonial environment. Using a multi-disciplinary approach, it focuses primarily on physiological, energetic, behavioural, and evolutionary aspects of reproduction in adults and on the extraordinary long growth period and the irregular feeding rates of chicks during the winter. The present studies aim to understand the mechanistic (physiological) determinants of quality, how those relate to individual performances in a crowded and aggressive social context, how performances are signalled to conspecifics, and what the fitness consequences of variation in quality are. The proposed research builds upon a highly integrative framework to better understand the proximate basis and ultimate consequences of individual quality.	jean-patrice.robin@iphc.cnrs.fr	http://www.iphc.cnrs.fr/
PHYSIO-ENERGY (IPEV Prog 131)	ROUSSEL Damien	UMR 5023 - LEHNA, Bâtiment, R Dubois, Université Claude Bernard Lyon 1- 69622 Villeurbanne Cedex, France	THE MAIN OBJECTIVE of the research project PHYSIONERGY is to investigate the cellular and molecular bioenergetics processes developed by skeletal muscles of Antarctic and Sub-Antarctic penguins to overcome metabolic challenges at some critical steps of their living. We will keep our original cellular and molecular expertise, enriched the last years by the development of in vitro approaches using ultra-high sensitive respirometer. The present program is divided into four complementary work-packages: WP1 investigates the complex stimuli that instruct in fine muscle plasticity in response to energetic challenges such the passage from shore to marine life in king penguin juveniles or the fasting periods in chicks either during the winter or while undergoing protein breakdown during the molt or in phase III of fast. WP2 studies the dynamic of muscular bioenergetics development in growing Adélie and king penguin chicks. WP3 investigates molecular and cellular pathways that trigger the regulation of muscle mass during growth, molt and fast. WP4 evaluates whether ornamental colors might be a proxy of bioenergetics quality of individuals for sexual selection in relation to oxidative stress and hormonal status.	damien.rousseau@univ-lyon1.fr	http://umr5023.univ-lyon1.fr/

<p>SUBANTECO (IPEV Prog 136)</p>	<p>RENAULT David</p>	<p>Université de Rennes 1 UMR CNRS 6553 Ecobio 263 Avenue du Gal Leclerc CS 74205 35042 Rennes Cedex</p>	<p>Subantarctic biodiversity, effects of climate change and biological invasions on terrestrial biota. Within the latitudinal belt 45-54°S, the Southern Ocean contains a number of dots of land, almost all of which are volcanic in origin. These subantarctic islands are remote, and host low plant and invertebrate diversities. These fascinating islands are characterized by impoverished terrestrial ecosystems with highly reduced or absent functional redundancy. In Ipev 136 program, we study the terrestrial biodiversity (fauna and flora) in the French subantarctic islands and the environmental factors shaping the geographical repartition of the species. The dispersal-related trade-offs in invertebrate species and the cost-driven trade-off between reproduction and dispersion in invertebrate species are considered. In addition, we address the interactions between alien and native species and study the effects of climate change on the original subantarctic biotas.</p>	<p>david.renault@univ-rennes1.fr</p>	<p>http://ecobio.univ-rennes1.fr</p>
<p>POPCHAT (IPEV Prog 279)</p>	<p>PONTIER Dominique</p>	<p>UMR CNRS 5558 - LBBE, "Biométrie et Biologie évolutive", UCB Lyon 1 - Bât. Grégor Mendel, 43 bd du 11 novembre 1918, 69622 VILLEURBANNE cedex, France</p>	<p>Assessing the anatomy of predator-prey relationships to manage reliably cat populations in the ecosystem of Kerguelen</p>	<p>Dominique.Pontier@univ-lyon1.fr</p>	<p>http://lbbe.univ-lyon1.fr</p>
<p>ETHOTAAF (IPEV Prog 354)</p>	<p>BONADONNA Francesco</p>	<p>CEFE-CNRS-UMR 5175, Centre d'Ecologie Fonctionnelle et Evolutive, 1919 route de Mende, 34293 Montpellier Cedex 05, France</p>	<p>Behavioural ecology of subantarctic birds. Interaction between individuals and between organisms and environment, pass through cues and clues that modify the behaviour of the receiver. Animals broadcast a wide range of information through calling, colour displays, postures and odours. In the environment, colours, odours, magnetic cues may indicate a source of food or a direction during a displacement. Our project focalises on signals : 1) olfactory cues, 2) visual cues and 3) acoustic cues, in petrels, albatros and penguins.</p>	<p>francesco.bonadonna@cefe.cnrs.fr</p>	<p>http://www.cefe.cnrs.fr/</p>
<p>OISEAUX PLONGEURS (IPEV Prog 394)</p>	<p>BOST Charles André</p>	<p>Centre d'études biologiques de Chizé- CEBC CNRS - Centre d'Études Biologiques de Chizé 79360 Villiers-en-Bois France</p>	<p>The objectives is to study how some diving predators may be used to access the effects of the climatic variability at short and long term on the pelagic food webs of the Southern Ocean. The program focused on the at sea ecology and energetic of key diving pulomanry predators (penguins, cormorans, diving petrels (Crozet, Kerguelen, Polar frontal zone) and Adelie land (Antarctic).</p>	<p>bost@cebc.cnrs.fr</p>	<p>http://www.cebc.cnrs.fr</p>
<p>I'AMMER (IPEV prog 1091)</p>	<p>Ropert-Coudert Yan</p>	<p>IPHC-DEPE, CNRS, 23 rue Becquerel, 67087 Strasbourg Cedex, France</p>	<p>Scientific Highlights: In the season 2013/14 we recorded the first "zero year" in terms of breeding success for the Adelie penguin colony of Dumont d'Urville, with known of the 35 000 pairs producing a single chick during their breeding attempt. This was due to a combination of extensive sea ice and episodes of rain and snow in this normally dry desert. This extreme event illustrates the rapidly changing environment in the Antarctic. Moreover, our monitoring of the movements at sea of the penguins highlight the importance on a year-to-year basis of the sea-ice extent and conditions and serve as a scientific foundation for the evaluation of the relevance of the proposed MPA for the D'Urville Sea region.</p>	<p>docyaounde@gmail.com</p>	<p>http://www.iphc.cnrs.fr/</p>

HEnergES (IPEV prog 1037)	GILBERT Caroline	UMR 7179, CNRS/MNHN, Ecole nationale vétérinaire d'Alfort, Ethologie, Bâtiment Blin, 7 avenue du Général de Gaulle, 94704 Maisons-Alfort cedex, France	<p><u>Huddling Energetics of moulting Elephant Seals</u> This project aims at investigating the behavioural and physiological adjustments of Southern Elephant seals along their moult, energetically costly, on their colony. Using various methods of measurements (infra-red thermography, GPS locations, body temperature measurements, climatic parameters, ethological observations), we aim at exploring the effects of climate and body condition on their aggregative patterns on land.</p>	cgilbert@vet-alfort.fr	http://www.mabiodiv.cnrs.fr/RubriquesEnFrancais/FichiersIndividuelles/Gilbert.html
RENKER (IPEV prog 1081)	LOISON Anne	Alpine Ecology Laboratory (LECA) Université de Savoie F-73376 LE BOURGET DU LAC Cedex	<p>Our project aims to assess ecosystem effects of reindeer on Kerguelen in order to evaluate different management policies. We will: estimate the distribution and habitat use of reindeer on Ile Kerguelen using a combination of faeces counts and helicopter transects, collect simple demographic indices such as calves/females ratio and age of carcasses to compare this predator-free population to e.g. South Georgia, assess if these indices can be validated using marked individuals, estimate plant composition and biomass and relate it to reindeer habitat use and presence of other herbivores using an approach developed in subarctic-alpine ecosystems, establish exclosures in different habitats to assess short-term responses of vegetation to reindeer grazing.</p>	anne.loison@univ-savoie.fr	http://www.leca.univ-savoie.fr/tmp/
POLARIS (IPEV prog 1102)	HOURDEZ Stéphane	Station de Biologie marine de Roscoff, Place Georges Teissier 29680 ROSCOFF , FRANCE	<p>The objective is to study the effect of very stable temperatures on the selection process and its effect on the resulting intra-population adaptive polymorphism. It will be developed over 3 campaigns at Dumont d'Urville. The first year, we have sampled populations of two sets of closely related species for two different families of polychaetes (total of 4 species) and evaluated the level of polymorphism for each. The second and third year will be dedicated to an experimental approach that will determine whether some alleles (or levels of polymorphism) are associated with better survival of a species to warming: TL50 will be determined, compared, and genotypes determined for the animals on either side of the TL50. Similar experiments will be carried out on populations of species close to the Antarctic ones in a temperate area (Roscoff) for comparison with a fluctuating regime of temperatures. Genotyping will use a RAD-Tag approach: primers tagged for each individual specimen will be used to amplify the cDNA (or genomic DNA if introns are short) and the resulting tagged fragments will be used for 454 pyrosequencing. The selection regime will be evaluated for each studied gene using coalescence approaches and the underlying tests (Tajima, HKA, MK) used in population genetics.</p>	hourdez@sb-roscoff.fr	http://mission-polaris.over-blog.com

<p>PROTEKER (IPEV prog 1044)</p>	<p>FERAL Jean Pierre</p>	<p>institut Méditerranéen de Biodiversité et d'écologie marine et continentale - IMBE</p>	<p>In the current context of climate changes, variations of the sea level and of marine biodiversity [particularly benthic], (extinction, shifts, replacements, "exotic" and invading species) will affect the Southern Islands, particularly in coastal waters. Sites explored during past ocean cruises or by diving around Kerguelen, having given place to collections and research tasks, will be revisited during cruises of "La Curieuse". The observations and the examination of these new collections will be compared with those carried out since the Seventies. All the data, old and new, will be captured in existing or compatible databases associated with a GIS. Certain species of which the genetic structure is known will be selected for a genetic monitoring and the determination of sensitive areas. The whole will bring the scientific bases to the determination of zones to be protected (site, area and optimum distances between the protected zones) and managed.</p>	<p>Jean-pierre.feral@imbe.fr</p>	<p>http://www.proteker.net</p>
<p>REVOLTA (IPEV Prog 1124)</p>	<p>ELEAUME Marc GALLUT Cyril</p>	<p>Unité Biologie des organismes et écosystèmes aquatiques (BOREA, UMR 7208), Sorbonne Universités, Muséum national d'Histoire naturelle, Université Pierre et Marie Curie, Université de Caen Basse-Normandie, CNRS, IRD; CP26, 57 rue Cuvier 75005 Paris, France.</p>	<p>Ecological Resources and valorisation using an Long Term Observatory in Terre Adélie. Radiations EVOLutives marines en Terre Adélie. For the moment Eastern antarctica is poorly affected by climate change and human activities. Biodiversity is exceptionnally high there comparing with arctic benthic fauna and the faunal assemblages described to date make this area a really unique patchwork of ecosystems. This area is therefore appropriate to establish a spot of reference to measure the biotic and abiotic parameters on the long run, which will allow to measure the structure and variability of an ecosystem in « normal » situations. The data obtained will be of great importance for managing protected marine areas.</p>	<p>eleaume@mnhn.fr</p>	<p>http://borea.mnhn.fr/</p>
<p>IMMUNOTOXKER (IPEV Prog 409)</p>	<p>BETOULLE Stephane</p>	<p>UMR-I 02 INERIS-URCA-ULH SEBIO Unité Stress Environnementaux et BIOSurveillance des milieux aquatiques UFR Sciences Exactes et Naturelles, Campus du Moulin de la Housse, BP 1039 51687 REIMS cedex 2, France</p>	<p>Subantarctic hydrosystems of kerguelen Islands constitute a natural field laboratory to study the eco-toxicological effets related to global change. In this context, our objective is : to better understand the sensitivity of model species (mytilidae/salmonidae), and thus their vulnerability to targeted stressors by an approach combining observation and experimentation; to provide to the scientific community and environmental managers a toolkit for assessing biological effects on marine and freshwater life of the combined action of the main anthropogenic stressors of aquatic environments, pollution and climatic changes. The project will focus on the continuum freshwater to marine environment.</p>	<p>stephane.betouille@univ-reims.fr</p>	<p>http://www.univ-reims.fr</p>
<p>ICO²TAKS (IPEV Prog 1142)</p>	<p>KOUBBI Philippe</p>	<p>Unité Biologie des organismes et écosystèmes aquatiques (BOREA, UMR 7208), Sorbonne Universités, Muséum national d'Histoire naturelle, Université Pierre et Marie Curie, Université de Caen Basse-Normandie, CNRS, IRD; CP26, 57 rue Cuvier 75005 Paris, France.</p>	<p>Integrated Costal Ocean Observations in Terre Adélie, Kerguelen and other sectors of the Southern Ocean. This project gathers spatial and long-term information on the composition of marine biota in various sectors of the Southern Ocean through a multidisciplinary effort. The main aims will be to complete the pelagicecoregionalisation of these areas, to study the pelagic trophic food web and to determine which indicators should be monitored to assess changes in relation to environmental forcing. The Indian part of the Southern Ocean is studied, specially the D'Urville Sea in East Antarctica and the Kerguelen coastal zone. Three French laboratories are involved, BOREA (Paris), LOV (Villefranche sur mer) and LOG (Wimereux) in cooperation with different international teams.</p>	<p>philippe.koubbi@upmc.fr</p>	<p>http://borea.mnhn.fr, http://www.lov.obs-vlfr.fr, http://log.univ-littoral.fr</p>

MDCPR	KOUUBI Philippe	Unité Biologie des organismes et écosystèmes aquatiques (BOREA, UMR 7208), Sorbonne Universités, Muséum national d'Histoire naturelle, Université Pierre et Marie Curie, Université de Caen Basse-Normandie, CNRS, IRD; CP26, 57 rue Cuvier 75005 Paris, France.	The Continuous Plankton Recorder (CPR) has been used in the Southern Ocean for many years under the umbrella of the SO-CPR programme of SCAR (Scientific Committee on Antarctic Research). This project spatially covered most of the Indian part of the Southern Ocean except the area between Crozet and Kerguelen where operates the R/V « Marion Dufresne ». However, this area is essential to integrate in this project due to its hydrological characteristics because of the joining of subtropical and subantarctic fronts and the proximity of the Northern branch of the Antarctic Polar Front. Also, near Crozet, the influence of the Agulhas Front is important at the North of the subantarctic zone. Since 2013, we carry out a yearly survey to study the zooplankton distribution during the journey of the R/V « Marion Dufresne » around the French subantarctic islands. These studies will allow to model plankton communities and to study the consequences of the modifications of frontal zones on them.	philippe.koubbi@upmc.fr	http://borea.mnhn.fr
ZATA, Lter France (INEE CNRS)	LEBOUVIER Marc, ROPERT-COUDERT Yan	Université de Rennes 1 UMR CNRS 6553 Ecobio, OSUR Station Biologique 35380 Paimpont, France	In the French Southern and Antarctic Territories, the LTER ZATA (<i>Zone Atelier Antarctique et Subantarctique</i>) covers four sites on a vast territory which stretches from the Antarctic (Adélie Land) to the subtropical waters of the Indian Ocean (Saint Paul and Amsterdam Islands) through two groups of sub-Antarctic islands (Crozet Archipelago and Kerguelen Islands). The research sites are dedicated to long-term monitoring in terrestrial and marine environments. The monitoring refers to the changes occurring in organisms, populations and ecosystems due to the combined impact of human activities and climate changes. The LTER ZATA gathers 15 programs funded by the French Polar Institute IPEV.	marc.lebouvier@univ-rennes1.fr , yan.ropert-coudert@c-strasbourg.fr	http://za-antarctique.univ-rennes1.fr/

Geosciences programs

SISMOLOGIE/OBS (IPEV prog 133)	ALESSIA Maggi	EOST, 5 rue René Descartes, 67084 STRASBOURG Cedex, France	The main objective of the "SEISMOLOGY/OBS" program is the continuous, broad-band, high-resolution observation of ground motion, especially high latitudes of the southern hemisphere, which are still insufficiently sampled despite the improvements of the past few years. Recorded and quality controlled data are freely distributed to the international scientific community both in real- and delayed-time. Our data contribute equally to global and regional tomographic studies, toseismicity studies, and to studies of microseismic noise. Real-time data from our sub-Antarctic stations are used for tsunami warning alerts in the Indian Ocean, for which they are particularly valuable. Our goals are to maintain or improve the quality of the data, to improve the robustness of the data recording and distribution procedures, and to increase their national and international utilization.	alessia.maggi@unistra.fr	http://eost.unistra.fr/
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GEOMAGNETISME (IPEV Prog 139)	CHAMBODUT Aude	EOST, 5 rue René Descartes , 67084 Strasbourg Cedex, France	The permanent magnetic observatories of Amsterdam, Crozet, Dumont D'Urville, Concordia/DomeC and Kerguelen are fulfilling the intermagnet (INTERnational Real-time MAGnetic observatory NETwork) standards. In these observatories, the Earth's magnetic field is continuously recorded with sampling rates of 1s. Absolute measurements of the magnetic field components are also performed regularly (every day) throughout the year. The data processing and dissemination, to the World Data centers (W.D.C. for geomagnetism) across the intermagnet network, are quasi realtime thanks to the recent acquisition system integrating daily shipment protocols.	aude.chambodut@unistra.fr	http://eost.unistra.fr/
TALISKER (IPEV 1077)	GUILLAUME Damien	Géosciences Environnement Toulouse, Observatoire Midi-Pyrénées, 14 Avenue Edouard Belin, 31400 Toulouse, France	TALISKER will focus on the characterization of fluid circulations across the lithosphere of Kerguelen, from the upper mantle to the surface and their migrations to the Southern Ocean. The three approaches are - characterization of the fluid paleocirculations within mantle rocks or associated to the emplacement of plutonic rocks, - characterization of the present-days hydrothermal discharges and the fluid-rock-biosphere interactions, - quantification of the chemical fluxes from land to the ocean.	damien.guillaume@get.obs-mip.fr	http://www.get.obs-mip.fr/
PALAS (IPEV Prog 1094)	SABATIER Pierre	EDYTEM Environnements, DYnamiques et TErritoires de la Montagne Université de Savoie Laboratoire EDYTEM - UMR5204 Bâtiment « Pôle Montagne » F-73376 LE BOURGET DU LAC Cedex	This project is a joint proposal of EDYTEM (CNRS, université de Savoie) and the Department of Earth science, University of Bergen. The objective of this project is to perform at least Holocene-long sediment cores from Kerguelen lakes in order to do high resolution continuous reconstructing of past climate fluctuations with sedimentological and geochemical proxies. The proposal is connected to an ongoing project at University of Bergen where similar sites in Northern Hemisphere and in the Southern Atlantic Ocean are investigated. In this proposal focused on Kerguelen Archipelago, two complementary approaches will be applied: i) in Lake Armor, a lake with no glacier in its catchment area, erosion fluxes will be used to reconstruct past precipitation patterns; ii) in lakes with a glacier in their catchment area (Lake Guynemer area and Lake Aphrodite area), erosion fluxes will be used to reconstruct past glacier fluctuations. In a second time, this two records will be associated to reconstruct the past shift or changes in intensity of the Southern Westerly Wind. Finally, those approaches will be completed by Holocene sea-salt aerosols reconstructions from element geochemistry.	pierre.sabatier@univ-savoie.fr	http://edytem.univ-savoie.fr
CRACICE (IPEV prog 1050)	LEGRESY Benoît	Laboratoire d'Etudes en Géophysique et Océanographie Spatiales - LEGOS/CNES, Université de Toulouse 3, 18, av. Edouard Belin, 31401 Toulouse cédex 9, France	We intend to follow the evolution of the Mertz, Ninnis and Cook glaciers. We first concentrate on the Mertz glacier to follow its ice tongue calving. The survey will use GPS beacons setup along the ice tongue and around the main rift which might free a 70*25 km iceberg.	benoit.legresy@cnes.fr	http://www.legos.obs-mip.fr

GRAVITE (IPEV prog 337)	ROGISTER Yves	Institut de Physique du Globe de Strasbourg - Université de Strasbourg, IPGS-EOST, 5 rue René Descartes, 67084 STRASBOURG Cedex, France	Absolute gravity measurements are necessary to build models of the geoid. Repeat measurements are complementary to precise positioning measurements in providing tools to constrain both the ice-mass variations over the polar regions and the post-glacial rebound. We propose to initiate or repeat absolute gravity observations in the polar regions. In Antarctica, measurements will be performed at the O'Higgins, Palmer and Rothera Stations in the Antarctic Peninsula and at the McMurdo Station, Scott Base, Mario Zucchelli Station in the Ross Sea Embayment and Dumont d'Urville Station in Terre Adelie.	yves.rogister@unistra.fr	http://eost.unistra.fr
NIVMER (IPEV Prog 688)	TESTUT Laurent	Laboratoire d'Etudes en Géophysique et Océanographie Spatiales - LEGOS/CNES, Université de Toulouse 3, 18, av. Edouard Belin, 31401 Toulouse cedex 9, France	The NIVMER program of the ROSAME tide gauge network - http://www.legos.obs-mip.fr/en/observations/rosame/ - is complementing several national research programs using in situ sea level variation observations, in the peri-antarctic area of the Indian Ocean. These programs are related to tsunami warning system, satellite altimetry processing and validation, Antarctic Circumpolar Current monitoring and secular mean sea level trends. This tide gauges network is part of the GLOSS global network.	laurent.testut@legos.obs-mip.fr	http://www.legos.obs-mip.fr

Physical sciences programs

GLACIOLOGIE (IPEV Prog 902)	RITZ Catherine	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	Recovering a 1.5 million years record of climate and greenhouse gases from Antarctica is a major objective of the ice core community (associated in IPICS, International Partnerships in Ice Core Science) and there is an agreement that such Oldest Ice could be found in the plateau area of the East Antarctic Ice Sheet. The region around the permanent station of Concordia (East Antarctica) is among the few spots possible. The aim of this project is to improve our ability to detect regions where ice could be very old. The approach is based on the association of various types of observations and ice flow/thermal modelling. This combination will help to: Test our ability to predict the thermal type of ice-bed interface and infer geothermal heat flux ; Validate ice flow models ; Determine badly known characteristics such as the mechanical properties of ice in these very cold and slow regions. The new observations planned are essentially radar measurements and borehole logging. We will also take advantage of information obtained in the EPICA ice core. Because of this link with the EPICA ice core, this project also involves sampling of the EPICA archive left at Concordia and some management of the ice core storage.	catherine.ritz@lgge.obs-ujf-grenoble.fr	http://lgge.osug.fr/
GLACIOCLIM-SAMBA (IPEV Prog 411)	FAVIER Vincent	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	This is the Antarctic component of the CLACIOCLIM ORE:SO, to detect, monitor and understand climate and mass balance variability and change in the glacial environment. The program maintains a surface mass balance network at Cap Prud'homme (CP, summer and winter surveys), along a 150 km transept (1 survey/year), and at Concordia (1 survey /year or more). Meteorological instruments are also be deployed near CP and special meteorological and glaciological observing periods are organized.	favier@lgge.obs-ujf-grenoble.fr	http://www-lgge.ujf-grenoble.fr/ServiceObs/contexte.htm

GLACIOCLIM-KESAACO (IPEV Prog 1048)	FAVIER Vincent	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	This program is the exploratory step for Kerguelen Component of the CLACIOCLIM observatory. It is essential to study the climate/glacier relationship to describe the main factors that induced the current dramatic retreat of the Cook icecap. The current project plans to deploy and maintain a surface mass balance network, and meteorological instruments on and around the glacier according to glacioclim protocols.	favier@lgge.obs.ujf-grenoble.fr	http://www-lgge.ujf-grenoble.fr/ServiceObs/con texte.htm
DACOTA (IPEV prog 1053)	LEMEUR Emmanuel	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	The program aims at a perennial and extended survey of the test zone of glacier de l'Astrolabe (Adelie Land). Not only such a pannel of observations allows for a better characterization of the glacier dynamics (the role of these outlet glaciers on the overall mass balance of large parts of the ice sheet is crucial) but it also proves necessary for properly running and validating an ice flow model in order to produce realistic forecasts of the future of these glaciers and the consequences on sea level.	Emmanuel.Lemur@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr/
CALVA (IPEV prog 1013)	GENTHON Christophe	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	The program is designed to acquire field data in Adelie Land and at the Dome C to better verify, validate or improve meteorological and climate modeling at the process scale and satellite retrieval over the Antarctic region. This project takes over the IPY-CONCORDIASI project for the IR and meteorological modeling and it is the field component of the "surface mass balance uncertainties" workpackage of the FP7 European project ICE2SEA started in 2010	Christophe.Genthon@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr/
SUNITE DC (IPEV prog 1011)	SAVARINO Joël	Laboratoire de Glaciologie et Géophysique de l'Environnement, Chimie atmosphérique, Neige, Glace (CHANG), 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	For this renewal, the SUNITE DC will follow the same scientific objectives fixed during the previous program, i.e. document and use of the sulfate and nitrate stable isotopes in the context of an anticipated ozone hole recovering to put new constrains on the sources, transformations and transports of these species into polar regions where there are archived in ice for hundred thousand of years. However, the methodologies and approaches will evolve toward monitoring activities instead of intensive summer campaigns. The scientific activities will concentrate on the monitoring of the aerosol and surface snow isotope composition year-round with the double objectives of allowing the comparison of long isotope series with the recovering and dynamic of the stratospheric ozone and to secure continuous monitoring in case a major event will occur (e.g. major volcanic eruption, solar proton event, major ENSO etc.) .	jsavarino@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr/
NDACC-Antarctica (IPEV prog 209)	JUMELET Julien	Latmos, Tour 45, couloir 45-46, 3e et 4e étages, Boite 102, Université Pierre et Marie Curie, 4 Place Jussieu, 75252 Paris Cedex 05, France	This program is the Antarctic and sub-antarctic component of the NDACC-France Observing Service which is the French contribution to the international NDACC (Network for Detection of Atmospheric Composition Changes). This network aims to the monitoring of upper troposphere-low stratosphere (UTLS) chemical composition, in order to detect trends and variability, as well as climatic interactions. NDACC contributes to feed decision processes in the frame of the Montreal Protocole.	Julien.Jumelet@latmos.ipsl.fr	http://www.latmos.ipsl.fr/
RAYCO (IPEV prog 227)	KLEIN Karl Ludwig	LESIA, Observatoire de Paris, Section de Meudon, 5, place Jules Janssen, 92195 MEUDON Cedex, France	Observation of the nucleonic cosmic ray component 1/as the french contribution to the international network of neutron monitors; 2/ to study relativistic proton acceleration in solar flares; 3/ to improve the understanding of cosmic ray propagation in the heliosphere; 4/ to provide the data for, and to improve the models used by the Sievert System (DGAC-French Civil Aircraft Authority).	ludwig.klein@obsppm.fr	http://lesia.obsppm.fr/

SUPERDARN KER (IPEV prog 312)	MARCHAUDON Aurélie	Laboratoire de Physique et Chimie de l'Environnement et de l'espace, 3A, avenue de la Recherche Scientifique 45071 ORLEANS Cedex 2	The SuperDARN (Super Dual Auroral Radar Network) network of coherent High-Frequency (HF) radars is dedicated to global observations of the convection of the ionospheric plasma in the high-latitude regions: auroral zones and polar cap. The french SuperDARN Kerguelen radar is conjugate with the english Hankasalmi radar and with the incoherent scatter radars, ESR and EISCAT, all located in Scandinavia. This configuration greatly enhances the capabilities of the whole SuperDARN project on most of the scientific objectives, but more particularly on those centred on magnetic conjugacy between hemispheres. It will allow to understand the nature and the limits of magnetic conjugacy. Moreover, the SuperDARN network gives also complementary measurements to experiments onboard satellites, bringing a better understanding of the whole solar wind-magnetosphere-ionosphere system, particularly its evolution with time.	aurelie.marchaudon@cnr-orleans.fr	http://pce.cnr-orleans.fr
HAMLET (IPEV prog 1007)	WROBEL Frédéric	Institut d'Electronique du Sud UMR5214, RADIAC, Université Montpellier 2 - cc/084, Place Eugène Bataillon, 34095 Montpellier CEDEX 5, France	Cosmic rays continuously reach the Earth atmosphere which lead to various dysfunctions in electronic components and systems. These dysfunctions are critical for applications dealing with security, transport or health... In this context, the knowledge of the atmospheric radiation environment is crucial. Data can be obtained either by detection of natural particles in the atmosphere or by directly observing their effects on electronic devices. Locations with high altitude and high latitude are particularly of interest since particule fluxes are harsh.	frederic.wrobel@ies.univ-montp2.fr	http://www.ies.univ-montp2.fr/index.php?option=com_content&view=article&id=77&Itemid=101&lang=en
CESOA/ORE (IPEV prog 414)	LEGRAND Michel	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	The atmospheric Sulfur cycle at mid and high southern latitudes: interannual variability of marine DMS emissions (sea-ice, ocean temperature, oceanic DMS content, chlorophyll a, short-term climatic event such as ENSO) and future response to global climate change. That includes a year-record study of DMS and sulfur aerosol at DDU, Amsterdam and Concordia Station, DMS in seawater collected during ship traverses between different stations.	Michel.Legrand@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr/
CHIMIE ATMO DC (IPEV prog 903)	LEGRAND Michel	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	The program 903 is aimed to study the coupling between dynamic and chemistry on the high antarctic plateau at Concordia Station. Long term monitoring of ozone and other acidic trace gases is proposed, in association with the development of vertical measurements of atmospheric chemical species and their links with dynamical processes. Implications for the incorporation and depositions of impurities in Dôme C ice cores will be studied.	Michel.Legrand@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr/
AEROTRACE (IPEV prog 415)	SCIARE Jean	Laboratoire des Sciences du Climat et de l'Environnement, LSCE-Orme, point courrier 129,CEA-Orme des Merisiers, 91191 GIF-SUR-YVETTE CEDEX, France	The main objective of this program is to better document the role of reactive (short-lived) atmospheric species (gases and aerosols) in the Austral Ocean. Long term observations of aerosol properties are performed at 3 monitoring stations (Amsterdam Island, Crozet Island, Cape Point) for that purpose in order to better document spatial and temporal variability of aerosol sources and better characterize their contribution to the radiative forcing of aerosols in the Austral Ocean.	Jean.Sciare@lsce.ipsl.fr	http://www.lsce.ipsl.fr

RAMCES-AMS/ORE (IPEV prog 416)	WASTINE Benoit	Laboratoire des Sciences du Climat et de l'Environnement, LSCE-Orme, point courrier 129,CEA-Orme des Merisiers, 91191 GIF-SUR-YVETTE CEDEX, France	The objective of the RAMCES-AMS program is the long term monitoring of greenhouse gases (CO ₂ , CH ₄ , N ₂ O, SF ₆). To properly characterize the air masses we are also performing continuous measurements of Radon-222 and meteorological parameters, and weekly air sample to analyze CO, H ₂ and CO ₂ isotopes. The atmospheric measurements performed at Amsterdam enables a quantification of the oceanic carbon sink, and the trace gases emissions from Southern Africa. During the 4 years project we will upgrade the Amsterdam observatory in order to integrate this station to the European Research Infrastructure ICOS.		https://icos-atc-demo.lsce.ipsl.fr/node/31
HAMSTRAD (IPEV prog 910)	RICAUD Philippe	Laboratoire d'Aérodologie, CNRS - Université Toulouse 3 - O.M.P., 14 avenue Edouard Belin, 31400 -TOULOUSE, France	The instrument named HAMSTRAD (H ₂ O Antarctica Microwave Stratospheric and Tropospheric Radiometers) has been automatically measuring in the microwave domain water vapour (183 GHz) and temperature (60 GHz) from 0 to 10 km above Dome C (Antarctica) since January 2010. The aim of the programme is the study of the long-term evolution of water vapour and temperature from the planetary boundary layer to the tropopause and its impact on climate change. In addition to the long-term trends, the diurnal cycles, the seasonal variabilities and some specific case studies are intended to be analyzed. The HAMSTRAD measurements will be compared to the space-borne measurements (IASI, AIRS), in-situ sensors along the 45-m high tower, daily radiosondes, ECMWF analyses/forecasts, and the Météo-France climate model outputs. Along with the polar process studies, the project will also participate to the validation of space-borne sensors, model outputs and ECMWF analyses/forecasts. ECMWF.	philippe.ricaud@aero.obs-mip.fr	http://www.aero.obs-mip.fr/
PaLaTIO (IPEV Prog 1065)	MICHEL Elisabeth	Laboratoire des Sciences du Climat et de l'Environnement/ IPSL, UMR 8212, F-91198 GIF-SUR-YVETTE CEDEX, FRANCE	In the Southern Ocean (SO) – a key player in global oceanic and atmospheric circulation - intermediate and bottom waters form, and wind driven upwelling connects the deeper ocean with the atmosphere. The centennial to millennial scale climate changes that occurred since the last glacial maximum (LGM) may have been the result of ocean circulation changes, with associated modification of ocean heat transport, and/or of rapid atmospheric circulation changes. We aim to document the climate history and circulation changes during the Last termination and the Holocene, along a latitudinal transect in the Indian Ocean sector of the SO. Well-dated terrestrial records from Iles Kerguelen and Ile Amsterdam will be combined with marine high resolution records from the south Indian Ocean. A precise time scale will be created for these multi-proxy records, using volcanic events and 14C dating in order to construct a common marine-terrestrial chronology. The integration of terrestrial multi-proxy records and marine records will result in qualitative as well as quantitative reconstructions of environmental and climatic parameters, such as temperature, precipitation and wind intensity, as well as oceanic and atmospheric circulation changes.	elisabeth.michel@lsce.ipsl.fr	http://www.lsce.ipsl.fr

MAKER (IPEV prog 1061)	PARK Young -Hyang	Laboratoire d'Océanographie et du Climat (LOCEAN) MNHN, Université Pierre et Marie Curie, LOCEAN-IPSL Case 100, 4 place Jussieu, 75005 PARIS, France)	The Kerguelen Plateau is the largest near-meridional submarine plateau in the Southern Ocean (SO) and constitutes a major topographic barrier for the eastward flowing Antarctic Circumpolar Current (ACC). Under the changing climate of the earth, identification and monitoring of the changes in location and intensity of the ACC and associated MOC (meridional overturning circulation) are among the key objectives of the SO oceanographic community. Located close to the high eddy activity associated with the powerful Subantarctic Front north of the plateau and hugged east of the islands by a swift and narrow branch of the Polar Front (PF), the area east of the Kerguelen Islands provides with an ideal place to conduct systematic observations of the ACC and associated eddies. The main objectives of the present project are thus to 1) monitor the time and space variability of the vertical structure of the PF and 2) estimate the vertical and horizontal eddy diffusivities of the area, which are climatologically critical parameters for determining the structure and strength of the SO-MOC. A cost-effective and safe on board operation is proposed using XCTD (expandable conductivity-temperature-depth) castings from the La Curieuse, a near-coast operating small boat at the Kerguelen Islands.	yhpark@mnhn.fr	https://www.locean-ipsl.upmc.fr
SAWFPHY-Concordia (IPEV prog 1098)	HERTZOG Albert	Laboratoire de Météorologie Dynamique - LMD (CNRS, Université Paris 6, IPSL, Ecole Normale Supérieure), 45, rue d'Ulm / 29, rue d'Ulm / 24 rue Lhomond, 75230 Paris cedex 05, France	The SAWfPHY-Concordia project is aimed at making new measurements of atmospheric moisture at the Concordia polar station during winter. These measurements will use the new surface acoustic wave SAWfPHY hygrometer, currently developed at LMD in the frame of the Stratéole Phase 2 balloon project. The observations collected at Concordia will serve on the one hand to validate the recent developments of the hygrometer in conditions close to those encountered in the stratosphere, and will be used on the other hand to characterize surface moisture on the Antarctic Plateau, as well as humidity gradient in the polar boundary layer.	albert.hertzog@lmd.polytechnique.fr	http://www.lmd.jussieu.fr/
CHICTABA (IPEV Prog 1115)	MAGAND Olivier	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	Initiated by the Australian Antarctic Division (AAD), and in close collaboration with Denmark, USA and France, this project of intermediate ice core drilling (400 m) is planned in the Aurora Basin North (ABN, East Antarctica) from November, 2013 till March, 2014. The site is located at the former AWS meteorological station GC41 (71°36'10, 111°15'46). It is located 1250 km from DDU, 600 km from Casey and 550 km from DMC. It appears ideal to collect an ice core covering about 2000 years of climatic recordings. with a quasi-annual resolution (annual accumulation rate estimated at 10 cm of water). The first field season (2013-14) was entirely dedicated to science traverse and ABN ice cores, (samples collected during the science traverse have been stored at DMC for analysis.	magand@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr/

GMOstral (IPEV prog 1028)	DOMMERGUE Aurélien	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	The GMOstral is initiated by a European project GMOS (Global Mercury Observation System), which aims at developing a coordinated global observation system for the global pollutant, atmospheric mercury (Hg). This will then provide high quality data for the validation and application of regional and global scale atmospheric models, to give a firm basis for future policy development and implementation. In this context we propose to implement three Hg monitoring stations in sub-Antarctic and Antarctic sites in order to document and monitor the atmospheric Hg trends in remote places of the southern hemisphere and to study the almost unknown reactivity of Hg in those regions, in particular diurnal cycling, deposition, and reemission trends in Antarctica.	Aurelien.Dommergue@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr/
NIVOLOGIE (IPEV Prog 1110)	PICARD Ghislain	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	The interactions between the snow on the surface and the atmosphere are very strong and are responsible for important feedback loops in the climate system, especially in snow-cover areas like in Antarctica. NIVO project aims to better quantify these interactions and improve their prediction by physically-based snow evolution models. For this, the project implements automated instruments and conducts manual measurements to monitor the evolution of snow physical properties at Concordia and Cap Prudhomme stations in East Antarctica. These observations related to thermal variables, the radiation balance or the surface state, will allow to better understand the evolution of the snowpack, to calibrate the observations acquired by satellites and validate snow evolution models to, in fine, suggest improvements. In the field, NIVO will deploy and calibrate new instruments developed in the framework of the ANR "MONitoring SNOW in a changing climate " (spectrum of snow optical properties, snow grain size profile, ...).	ghislain.picard@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr
SUBGLACIOR (IPEV Prog 1119)	CHAPPELLAZ Jérôme	Laboratoire de Glaciologie et Géophysique de l'Environnement, 54 rue Molière, BP 96, 38402 St Martin d'Hères, France	The IPEV SUBGLACIOR project makes the logistical counterpart of the following scientific projects already funded : (1) the European ERC Advanced grant project ICE&LASERS 2012-2017 (coordinator : J. Chappellaz), (2) the French ANR "Blanc" project SUBGLACIOR 2012-2016 (coordinator : O. Alemany), (3) the sponsoring of the BNP Paribas foundation (SUBGLACIOR 2011-2013, coordinator : J. Chappellaz), and (4) one of the components of the Equipex project CLIMCOR (coordinator : D.D. Rousseau, INSU/C2FN). These joint projects (or component) aim at building a revolutionary probe to measure as a function of depth, inside the glacier and in real time, the water isotopic composition (climatic signal) and the concentration of greenhouse gases (methane, and eventually carbon dioxide), without bringing an ice core at the surface. Ultimately, the probe will allow us to rapidly test the pertinence of an Antarctic site for a new deep drilling operation, similar to EPICA, to study the link between climate and greenhouse gases through the main climatic transition of the mid-Pleistocene one million years ago.	jerome@lgge.obs.ujf-grenoble.fr	http://lgge.osug.fr

ALBION (IPEV prog 452)	HOUSSAIS Marie Noëlle	Laboratoire d'Océanographie et du Climat: Expérimentations et approches numériques, Unité Mixte de Recherche 7159 CNRS / IRD / Université Pierre et Marie Curie/MNHN. Institut Pierre Simon Laplace, Boîte 100 - 4, place Jussieu 75252 PARIS Cedex 05,	The ALBION project, launched in 2006, aims at documenting the formation of the Adélie Land Bottom Water, the third source of Antarctic Bottom Water formed on the eastern Antarctic shelf off the George V Land / Adélie Land Coast. Regular summer hydrographic and sediment coring surveys together with continuous monitoring of the key formation and export areas should help understanding the general circulation on the shelf, its link to the sediment dynamics and its impact on the interannual variability of the dense water export. ALBION is part of a French-Australian collaboration between CSIRO (Hobart) and LOCEAN, bearing on data sharing and joint operations at sea.	marie-noelle.houssais@locean-ipsl.upmc.fr	https://www.locean-ipsl.upmc.fr
ASTEP (IPEV prog 1066)	GUILLOT Tristan	Laboratoire Lagrange, Université de Nice Sophia-Antipolis/Observatoire de la Côte d'Azur/ CNRS, B.P. 4229, 06304 Nice Cedex 4, France	ASTEP is an astronomy program designed to monitor photometrically the dome C sky. Its aims are (1) to assess precisely the photometric quality of the Concordia site (2) to discover and characterize exoplanets transiting in front of their stars and (3) to prepare future ambitious campaigns for the characterization of super-Earths. The ASTEP program has been operating since 2009-2010 and until the end of 2013. The program has been put in stand-by mode with the ASTEP 400 telescope sent back to France for major maintenance. The program could be reactivated as part as a more ambitious project, for example to combine visible and infrared monitoring of stellar fields (see the AST-3 collaboration below).	tristan.guillot@oca.eu	https://www.oca.eu/michel/GroupePlaneto.html
MICROMETEORITES (IPV Prog 1120)	DUPRAT Jean	Centre de Sciences Nucléaires et de Sciences de la Matière - CSNSM - IN2P3-CNRS, Université Paris SUD Bâtiments 104 et 108 91405 ORSAY CAMPUS (FRANCE)	The general framework of the present project is the astrophysical context of the solar system formation and its evolution during the first millions of years after the gravitational collapse of the proto-Sun. The 2013-2014 campaign has been devoted to the collection of micrometeorites in a 5 meter deep trench at the vicinity of the CONCORDIA station (<3 kms). The aim is to melt and sieve about 40 m3 of snow in ultra-clean conditions. This new collection should provide us with about 5000 new particles with sizes ranging from 20 up to 500 micrometers. This would allow us to double the number of particles available in the CONCORDIA collection. This new collection should contain about ten new UCAMMs that will provide unique informations on the colder and most remote part of the solar system (i.e. the cometary reservoir).	jean.duprat@csnsm.in2p3.fr	http://www.csnsm.in2p3.fr/
CAMISTIC (IPEV prog 1040)	DURAND Gilles	Astrophysique (Sap), Instrumentation et modélisation AIM Commissariat à l'Energie Atomique (CEA) Centre d'études de Saclay Orme des Merisiers, Bat 709 91191 GIF SUR YVETTE, FRANCE	Camistic is a Sub-millimetre / Thz camera with goal of site testing at Concordia by measuring the transmission and stability of the atmosphere. This camera placed on the 0.8m telescope IRAIT will explore the Thz domain in preparation of sub-millimetre astronomy experiments with larger telescopes at dome C. Astronomy goals are the study of star formation and the early stages of the universe. The program includes both the site testing, the characterization of the polar constraints and the build up of a camera that withstands these conditions.	durandgs@cea.fr	http://irfu.cea.fr/Sap/

PAIX & EXPLORER (IPEV Prog 1099)	MERIEME Chadid	OCA, Université Nice Sophia-Antipolis, Parc Valroses, 06108 NICE Cedex, France	<p>Our proposal aims 1) to modify the current PAIX (Photometer Antarctic eXtinction) photometer status from Astro-Concordia program to a new and purely astrophysical status. 2) to perform and install a new instrument, a high resolution spectrograph EXPLORER (EXoplanets, PuLsatiOn & high REsolution spectRoscropy). PAIX photometer takes benefit from the most striking Dome C properties where long and continuous time-series observations are possible during 150 « days », allowing unprecedented frequency resolution which have been only attained by space mission such as CoRoT or Kepler. Several rank A publications have been issued thanks to PAIX. EXPLORER spectrograph is a new instrumental program which will also take benefit of continuous and uninterrupted spectroscopic observations linked to excellent transparency skies which can be found only at Dome C. EXPLORER will complete and challenge the space mission GAIA. EXPLORER will make a major contribution in stellar pulsation and evolution in resolving some enigmas connected to Blazhko modulations, hydrodynamical and loss-mass phenomena in evolved stars (pulsation period more than 100 days) which remains a great mystery, and to complement PAIX in studies of the pulsation mode detection of P-mode in red giant stars.</p>	chadid@unice.fr	http://www.oca.eu/
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Human and social sciences

Turnover TA (IPEV Prog 1046)	VILLEMAIN Aude	U.F.R. SCIENCES ET TECHN ACTIVITES PHYSIQUES ET SPORTIVES, Campus du Moulin de La Housse, Chemin des ROULIERS, BP 1036, 51687 REIMS Cedex 2, France	Psychological difficulties during wintering affect both interpersonal relationships and operative adaptation (i.e. discrepancy between expected situations and real situations). This study aims at investigating the regulation and knowledge transfer between two dyads of colleagues during the turnover. The results could allow to identify the processes used during the turnover in order to facilitate knowledge transfer, and to optimize the winterers' preparation (training and technical support) to wintering.	aude.villemain@univ-reims.fr	http://www.univ-reims.fr/site/laboratoire-labellise/ea-4298-laboratoire-de-psychologie-appliquee-lpa,10030.html?
SICKVEST (IPEV prog 1117)	BESNARD Stéphane	UMR-S 1075 - Mobilités : Attention, Orientation et Chronobiologie (COMETE) Université de Caen Basse-Normandie, UFR de Médecine Campus, 5 Avenue de la côte de nacre, 14032 CAEN Cedex 5, France	Motion sickness is present in about 80% of the passengers during missions onboard the Astrolabe with sometimes a very significant risk of dehydration. Our unit specializes in the fundamental study of the vestibular system (inner ear), the sensory organ responsible of visual-vestibular conflict inducing this syndrome, and also provides medical support in parabolic flights (flight reproducing weightlessness) where this syndrome is also strongly present. Since the Astrolabe is a strong and reproducible stimulus triggering seasickness, we would like to characterize the strongest component of the elicitation of motion sickness (psychological component, types of boat movements) and to test 4 protocols of treatment of motion sickness with medical supervision (1 protocol per year), during turnaround missions of the Astrolabe. This work will be conducted in collaboration with the unit INSERM U 1075 (France) and the military research laboratory VIPER (Royal Military Academy, Belgium) specialized in extreme environments.	Besnard-s@phycog.org	http://www.unicaen.fr/medecine/

<p>FOLLOW UP (IPEV Prog 1113)</p>	<p>WAWRZYNIAK Michel</p>	<p>Université de Picardie, UFR sciences humaines, sociales et philosophie, Chemin du Thil 80025 AMIENS Cedex 1, France</p>	<p>The objective of the study is to refine the understanding of individual and collective psychological phenomena occurring during long duration polar missions, and reunion after the mission has ended. This psychological study consists in a longitudinal follow-up of winterover teams -working and living together in Adélie Land, at the scientific outpost of Dumont d'Urville- but also of their relatives: partners, children, or parents. These cohorts would be followed in parallel from the preparation of the mission before departure, and until after the homecoming period. Individual and group interviews as well as questionnaires would be used to explore the practices, representations and emotions of those individuals, who experience an unusual voluntary separation, a topic seldom studied in the polar context, as in most extreme environments. Beyond polar missions, such research could bear fruit in other contexts, including long-duration space missions and submarine patrols, which involve a similar remoteness from relatives and from the usual environment.</p>	<p>michel.wawrzyniak@u-picardie.fr</p>	<p>https://www.u-picardie.fr/</p>
<p>ICE-Q (IPEV Prog 1136)</p>	<p>NICOLAS Michel</p>	<p>UFR des Sciences et Techniques des Activités Physiques et Sportives (STAPS), CAMPUS MONTMUZARD, BP 27877, 21078 DIJON CEDEX, France</p>	<p>The aim of the program is to study social, occupational, environmental and psychological variables which are among the most important determinant in adaptation to Isolated and Confined Environments, the so-called ICES. The evolution and the relationships between these variables will be investigated. Furthermore, in an interdisciplinary approach, we propose to analyze the relationships between psychological and medical data available in order to evaluate the relevance of the psychological measures. This program aims to gather data in order to construct standardized tools that will help evaluating individual and collective adaptation in ICES which would facilitate both recruitment and follow-up of the implicated crews.</p>	<p>Michel.Nicolas@u-bourgogne.fr</p>	<p>http://www.u-bourgogne.fr</p>