



World Meteorological Organization

Regional Training Centre (RTC)

Self-Assessment Questionnaire

Date: __11__/_10__/_2016__

RTC Country	Argentina		
Name of RTC Component	Departamento de Ciencias de la Atmosfera y los Océanos - UBA		
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Signature of the RTC Director or Coordinator: _____

(Coordinator in the case of multiple components, Director in the case of single component RTCs)

Signature of Permanent Representative: _____

The following criteria are required to be met by each RTC component, or in collaboration with other RTC components, as referenced in EC-66, Resolution 15. Indicate in the space provided whether the RTC Meets, Partially meets, or Does not meet the criteria. Also provide key evidence in the form of descriptions and documentation as suggested. Some suggestions for possible evidence are given for each criterion, but you are free to provide whatever evidence you think is most appropriate. Be specific when describing examples. Attach the most significant evidence to this self-assessment, preferably in e-document format, but retain the full evidence for the Review Team. If evidence can be used for more than one criterion, simply reference it in the second usage. (For example, "See 1.x...")

1. Identifying learning needs				
	Meets	Partially Meets	Does Not Meet	Comments
1.1 The RTC component has processes in place to gain information about the education and training needs of the Region.	X			
<p>Provide evidence of how you meet the criterion. If the criterion is only partially met or not met, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.</p> <p>Within the Faculty of Exact and Natural Sciences of the University of Buenos Aires the <i>Department of Atmospheric and Oceanic Sciences</i> (Departamento de Ciencias de la Atmósfera y los Océanos, DCAO) is responsible for five educational programmes:</p> <ol style="list-style-type: none"> 1. Licentiate in Atmospheric Sciences 2. Licentiate in Oceanography 3. Bachelor in Atmospheric Sciences (with 4 specializations) 4. PhD in Atmospheric Sciences 5. PhD in Oceanography <p>Each year all five programmes are open to argentine and foreign students. The curriculum and the specific courses syllabus are available in our web page http://www.at.fcen.uba.ar/planes.php</p> <p>The WMO Basic Instruction Packages for Meteorologist (BIP-M) is covered by programme 1 although its training <i>exceeds</i> in depth and duration the basic OMM requirements for this level, since it takes students about 6 years to graduate (including the Licentiate Thesis). Programme 3 is in-between the BIP-M level and the BIP-MT level, and it takes 3 years and a half to be completed. The design of the current curricula allows graduated Bs in Atmospheric Sciences to continue their studies and obtain a Licentiate degree, since some subjects are common to both programmes and others are recognized equivalent by the Licentiate programme.</p> <p>Both programmes have been active since 1989 which has provided enough time and experience to detect learning need to be addressed. The main points identified are:</p>				

- i. The extension of the Bachelor programme is too long and graduates are overqualified to carry out technical activities necessary at the NWS
- ii. The completion of the Licentiate programme requires a student many years and contents in the curricula should be reorganized to avoid repetition

These learning needs were identified by the DCAO Curricula Committee after carrying out different activities including analysis of BIP-M WMO guidelines, Atmospheric Science curricula at other Universities, surveys among meteorologists and technicians. These activities are documented in our "Memoria 2009" and survey results were made available for all the DCAO community (<http://www.atmo.at.fcen.uba.ar/encu/encuestas.htm>).

Compared with other Universities in the region, graduate programmes of the University of Buenos Aires have no tuition fees. This applies to both, Argentine and foreign students. We consider that this policy is crucial to aid in the training and education of students from every country of the region. However, in spite of this great benefit, the number of students inscribed each year in each of the programmes mentioned above is quite low and the number of graduates per year is lower still, not enough to cover in particular the technical posts in the NWS. This identifies a third learning need

- iii. Increase the visibility of the Atmospheric and Ocean Sciences

The number of yearly inscriptions and graduates in each of the programmes are documented in each yearly DCAO "Memoria". A summary is presented in Annex A

The DCAO is also involved in interdisciplinary graduate and postgraduate programmes:

- Licentiate in Paleontology (coordinated by the Dept. of Geology)
- Licentiate in Biology (coordinated by the Dept. of Biology)
- Master in Environmental Sciences (co-sponsored by our dept. and several Faculty departments)
- Master in Agrometeorology (co-sponsored by our department and the Faculty of Agronomy)

This last programme started in 1989, as the first Master co-sponsored by two UBA Faculties, and after 6 years, in 1995, it was discontinued. In 2011 a number of meteorologists from DCAO and researchers from the Faculty of Agronomy reorganized the programme. The new version started in 2013 and is open to Argentine and foreign students. Courses are also open to be taken individually. Up to the moment two Latin American students are finishing their Master thesis and there are 9 foreign Spanish speaking candidates for 2017. However, monetary issues are a constant dilemma since UBA Masters are paid programmes where the incomes are mainly used to cover staff costs.

Possible Evidence:

- **Planning documents indicating how learning needs were determined**
- **Regional needs assessment reports, including data collection methods used**

- Description of learning needs assessment procedures utilized by the RTC
- Requests to RA President or RA Management Group ETR Focal Point regarding regional learning needs
- Evaluation sheets from previous international students that indicate learning needs

2. Designing the learning service

	Meets	Partially Meets	Does Not Meet	Comments
2.1 The RTC component selects methods of learning that respond to the aims and requirements of the curriculum and learning outcomes, and are appropriate for the learners.	x			

Provide evidence of how you meet the criterion. . If the criterion is only **partially met** or **not met**, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.

Possible evidence:

- Descriptions of learning solutions or modes used (e.g., classroom courses, field work, distance learning, etc.) and how decisions are made regarding their use
- Reports available on the implementation of new learning solutions (such as DL, new classroom approaches, etc.)
- Estimated costs per student for implementation of training using the various learning solutions (including staff costs)
- Examples of course descriptions that include specification of learning outcomes
- Examples of the range of learning activities used by the RTC, such as lectures, practical sessions, projects, self-paced DL, OJT, discussion groups, field trips, etc.

Learning need *iii*) identified above, was presented by the Research Secretary of the UBA and DCAO authorities to the Ministry of Science, Technology and Innovative Production in 2009. The result was the creation of a Human Resources Training Programme which finances each year a number of scholarships. Students from other faculties and/or Public Universities in Argentina who have completed the physics-mathematics nucleus can apply to be considered as a candidate to graduate as Bachelor and presently as Licentiate in Atmospheric Sciences. This new incorporation of students brought some new demands on the availability of subjects. Traditionally, most of the subjects in either the Licentiate or Bachelor Programme are dictated once a year. However, given the urgency of technicians by the NWS, at first there were scholarships granted twice a year, meaning that a first group would start the programme in February and a second one in July. Since the students of the Human Resources Programme have a limited time to graduate many subjects were made available twice a year, increasing the demand on the staff.

In an attempt to economize time, the first course students of the Human Resources Programme take, General Meteorology, was implemented as an intensive course, the topics which are generally taught on an 8 hour weekly basis over 16 weeks were delivered in 4 weeks, with daily 8

hour classes 4 times a week, which did not result to be the best solution. A new solution was presented: the creation of the subject as a DL course.

2.2 The RTC component ensures that its courses of instruction and other activities (e.g., delivering/developing e-learning, running off-site activities, providing advice/support) are carried out in a way that is consistent with the standards and guidance material issued by WMO. (e.g., WMO-No. 1083, WMO-No. 1114)

X

Provide evidence of how you meet the criterion. If the criterion is only **partially met** or **not met**, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.

Considering learning needs i) and ii) identified, the Curricula Committee of the DCAO has been working during the past 8 years in the design of a new Licentiate programme and a Technical programme which will replace the present Bachelor programme.

After many meetings, discussions within areas (synoptic, dynamics, climatology, etc), within the different cloisters (professors, graduates, students) and at department level where different options for the new Licentiate were presented and the Curricula contents were analyzed and updated, the new programme was presented for Faculty and University approval. Suggestions and corrections were made by both institutions and the final version answering these points was presented in September 2016. In all this process the recommendations of the WMO N°258 and 1083 Guidelines were closely followed to elaborate the content of the graduate an optional courses in the new programme.

The Curricula Committee is still working on the 3-year Technical programme following a similar method and expects it will be ready to be presented for approval by the Faculty and University before the end of the year.

In 2011 the University of Buenos Aires created the UBA-TIC Programme “Potenciar la enseñanza en el nivel superior a través de las nuevas tecnologías”. Our Faculty presented the project “El uso de las TIC en la educación universitaria en ciencias exactas y naturales” to this programme. DCAO was invited to participate and our proposal was to create the Distance Learning course Meteorología General. The financial support provided by the programme was used hire: a) designers to design and create the Course in the Faculty Moodle Platform and b) distance learning and didactic specialists to work with meteorologists in the elaboration and writing of the reading material and activities to be used throughout the course. The team worked over more than a year with help from many DCAO members to complete the project which was based on the contents of the face-to-face course.

Possible evidence:

- **Description of new course planning processes**
- **Examples of training development project plans used by the institution (project plans for course offerings)**
- **Evidence of mapping of curricula against WMO guidance, such as the BIP-M and MT (WMO 1083), or appropriate Competency**

Frameworks from WMO-49

- **Outcomes of internal and/or external reviews of course content**

2.3 The RTC component provides courses and other resources and activities that address the expressed education and training needs of the Region.

X

Provide evidence of how you meet the criterion. If the criterion is only **partially met** or **not met**, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.

Possible evidence:

- **List of courses and/or other activities with links to regional and other needs assessments**
- **Lists of courses offered in the form of annual reports (if not already provided)**

Training needs are identified through specific requirements that we receive from our National Weather Service, through our graduate students and through our staff, who is involved in a wide variety of professional and research activities at national and international levels. The participation of our staff in many Panels (VAMOS, WCRP, LPB, and IPCC among others) provides a critical feedback to keep our programmes updated.

There are many Continuous Education and Training (CET) activities at our department, the most popular ones, even for foreign participants, being the PhD Programmes (with 7 foreign students at the moment), the Master in Environmental Sciences (this year, this Ms has 6 foreign students among 12) and Master in Agrometeorology (2 at the moment and 9 candidates for 2017). It should also be mentioned that there are at least 4 postgraduate courses given at each semester that can be attended by any graduate student (being an official PhD student is not mandatory). In addition, our graduate courses are open to students from our Faculty and also to students from other institutions. The list of optional/postgraduate courses (with their contents) is also available in our web page, as an example we list here a few of them:

Hydrology, Mesometeorology, Statistical Methods in Atmospheric Sciences (II), Agro-meteorology (I and II), Advanced topics in Synoptic Meteorology, Advanced topics in Dynamics, Advanced topics in Statistical Methods, Numerical Modeling of the Atmosphere, Principles of Remote Sensing and their application to Meteorology, Waves in the Ocean, among others

This year the DL course, Meteorologia General is also offered as a postgraduate course for non meteorology students from different Universities. 9 students have inscribed in July 2016.

In the last self Assessment, 2009, DCAO proposed a Course on Aeronautical Meteorology to meet national, regional and international requirements in this special area. The course is motivated by a) Joint Interest of DCAO and National Weather Service as components of the Regional III – WMO and b) Attend OACI and WMO requirements. The proposal presented to stages: i) **First Stage** involved a **face to face** courses and ii) **Second Stage** considered “**distance learning**” modality. The first stage was fulfilled; the course was created and dictated at DCAO in 2013 with 10 students, repeated in 2015 and is programmed for next year.

Particularly focusing in recent international training and workshop activities hosted or co-hosted by our Department and Faculty, we would like to highlight:

- ✓ “Statistics of Extremes in Climate Change” Buenos Aires, 2nd October 2009
- ✓ “Radares Meteorológicos”. Buenos Aires, November 23rd - December 4th 2009
- ✓ “Short course on convectively coupled equatorial waves”. Buenos Aires, February 24th- March 12th 2010
- ✓ “The 2010 south-western hemisphere workshop series on climate change: CO₂, the biosphere and climate”. Buenos Aires, March 23rd - April 15th 2010
- ✓ “Agrometeorología y desarrollo sustentable”, Buenos Aires, 1-15 September 2010
- ✓ “Elementos de un modelo climático acoplado” Buenos Aires, 1st term 2011
- ✓ “Ocean circulation: theory and models” Buenos Aires, 5-16 December 2011
- ✓ “¿Quién controla el cambio climático en el hemisferio sur: calentamiento global o la reducción de ozono?” Buenos Aires, 1st term 2012
- ✓ “Training Workshop on Nowcasting Techniques” Buenos Aires, 5- 16 August 2013
- ✓ “Radares de doble polarización: principios y aplicaciones” Buenos Aires, March 30th – April 28th 2015
- ✓ “Pronostico en Meteorologia Espacial”, Buenos Aires, 9-13 June 2015

3. Delivering the learning service				
	Meets	Partially Meets	Does Not Meet	Comments
3.1 The RTC component demonstrates that, during the previous four years, it has made a contribution to meeting the education and training needs identified by the Region [Regional Association].	X			
Provide evidence of how you meet the criterion. If the criterion is only partially met or not met , describe what the gap that exists and what action is planned to meet it. Include attachments if necessary. Possible evidence: <ul style="list-style-type: none"> Statistics on courses and regional or other international students served (from Annual Reports) and links to Regional Needs “¿Quién controla el cambio climático en el hemisferio sur: calentamiento global o la reducción de ozono?” 2012. (3 Foreign students, Spain, Mexico, Brazil) “Training Workshop on Nowcasting Techniques” Buenos Aires, 5- 16 August 2013. 11 foreign students (Uruguay, Brasil, Perú, Chile, Venezuela) “Radares de doble polarización: principios y aplicaciones” Buenos Aires, March 30th – April 28th 2015 (1 foreign student, Germany) “Pronostico en Meteorología Espacial”, Buenos Aires, 9-13 June 2015. 4 Foreign students (Ecuador) “Meteorología General” DL, August-November 2015. 4 Foreign students (Ecuador) 				
3.2a The RTC component delivers training with competent instructors in terms of their scientific/technical ability and training expertise.	x			
3.2b The RTC component delivers training in an environment which is conducive to learning with adequate learning resources, buildings, ICT systems and training facilities.	x			
Provide evidence of how you meet the criterion. If the criterion is only partially met or not met , describe what the gap that exists and what action is planned to meet it. Include attachments if necessary. Possible evidence: <ul style="list-style-type: none"> Information on the (a) academic qualifications, (b) teaching qualifications, and (c) operational experience of training staff and how they keep current Curriculum Vitae of key faculty members Description of physical and IT infrastructure of the centre and plans for development 				

The skill of DCAO staff is very high. All professors are PhDs, many have post-docs outside Argentina and most teaching assistants also have PhD-education level (CV can be found here: <http://www-atmo.at.fcen.uba.ar/personal2.php>). The DCAO has 20 full-time and 48 part-time staff (meaning 40 hours a week dedication) involved in training activities at the different levels. Although part-time training staff is high most members have a full time dedication at the Faculty as research members of CONICET or through Phd or post-doc fellowships. The remaining part-time staff are full-time personnel at the NWS

The full time staff is supported by the University. Having a rented position in our University is very competitive, and, depending on category, personnel performance is evaluated each 3 or 7 years in a public and open contest. It should be stressed that all the Professors are judged once each 7 years through the participation of a board of experts coming from outside the University (most of them, in fact, come from other countries). After this evaluation, the contract can be renewed or not.

We have very few administrative and technical staff (4 administrative and 3 technical) being this a strong limitation for some of our activities.

Main research areas at our Department can be summarized in the following items:

1. Weather Analysis and forecasting
2. Study and modeling of the oceans and seas
3. Climate variability of the oceans and the atmosphere
4. Environmental Meteorology and Oceanography
5. Interactions among the components of the climatic system
6. Remote sensing applied to the oceans and the atmosphere

Linkages with other national and international organizations are strong and can be identified through the analysis of our “Memoria” as well as through the vitae of our staff. It is important to highlight the membership to different WMO-Panels (VAMOS, WCRP SSG, IPCC, WGSIP), and the participation of our scientists in several Research Projects funded by NOAA-European Community- IAI, among others. Also, Carolina Vera, Principal Professor of our Department, is currently Co-Chair of IPCC Working Group I.

The DCAO is physically located inside the university campus which is comprised of 3 main pavilions and many other buildings, mostly corresponding to different research centers. Of particular interest for Atmospheric and Oceanic Sciences is the vicinity with the Centro de Investigaciones del Mar y la Atmósfera, (CIMA <http://www.cima.fcen.uba.ar/>), devoted to research in both disciplines, with a strong emphasis in modelling issues.

The Faculty has the Dr. Luis Federico Leloir library (<http://www.bl.fcen.uba.ar/>), which includes access to on-line journals, e-books, and all kind of material to support teaching and research activities. Most of the classrooms include projectors. There are 4 computer labs, equipped with Windows and/or Linux machines (each one has at least 20 PCs) which are exclusively for training activities. The campus also has several restaurants, cafes, a doctor’s office and a sports centre. We also have a meteorological surface station and two automatic meteorological

stations.

Our Department is in the 2nd floor of the Pavilion II, where we have 4 classrooms, a computing lab (8 PC's, OS: Windows/Linux), a laboratory, a library, meeting rooms, computer servers room and several rooms for our staff members. We also host the IAI-FCEN office (http://www.iai.int/index.php?option=com_content&view=article&id=35&Itemid=84), and the Centro Argentino de Meteorólogos office (Argentine Meteorological Society). Through the University of Buenos Aires, we have access to high velocity internet connection (there is an optic fibre connection between our Faculty and the internet provider)

In the near future our Department will be moving to new facilities within Ciudad Universitaria. The Ministry of Science and Technology is financing the construction of a new building (called "Cero + Infinito") on the land behind Pavilion I which have started in October 2016.

4. Assessing learning and evaluating the learning service

	Meets	Partially Meets	Does Not Meet	Comments
4.1 The RTC component assesses the knowledge and competency of students, documents this information in a fashion suitable for a recognized quality management system, and provides students with a record of the education and training that has been successfully completed.	x			

Provide evidence of how you meet the criterion. If the criterion is only **partially met** or **not met**, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.

Possible evidence:

- **Examples of student learning assessments used (tests, practical and oral exams, rubrics, etc.)**
- **Summaries of course test results for some training events**
- **Examples of certificates issued, stating qualifications achieved or competencies addressed**
- **Examples of transcripts provided to students**
- **Description of assessment policies and procedures**

As a University component all our courses are assessed. The most common form of assessment used is two practical written exams, one mid-term and one at the end of the course and a final oral exam, once they have passed both written exams, which integrates all the course contents. Some courses also include lab practices where written reports discussing the experiments are presented and are considered part of the assessment. Other options include reading scientific papers and giving oral presentations discussing the readings.

Some courses are dictated at NWS with trainers both from DCAO and NWS, mainly as training labs for the future forecasting work graduates will have to carry out if working at the NWS. The final assessment used consists of presenting a situation to the student which they have to

analyze and inform following the procedures used at the NWS.

4.2 The RTC component has processes for measuring the effectiveness and quality of the learning service, including obtaining feedback from stakeholders.

x

Provide evidence of how you meet the criterion. If the criterion is only **partially met** or **not met**, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.

Possible evidence:

- **Examples of data collection methods for training evaluation (course evaluations, long-term training impacts evaluations)**
- **Process for using training evaluations to revise courses and resources**
- **Examples of recent course reviews and updates made**
- **Descriptions of training effectiveness review processes (could include internal course reviews, stakeholder feedback, external reviewers, etc.)**

As a University component courses do not have interaction with stakeholders. However every student must complete a course assessment at the end of each course. The assessment was developed by the Faculty and has been used for almost 15 years, and assesses both teachers and the course. All results are public and published at http://encuestas_finales.exactas.uba.ar/. At the moment of evaluating candidates applying for renewal of their teaching posts these results are considered by the jury.

The analysis of these assessments, in particular the comments made by students, was used by the Curricula Committee in the design of the new Licentiate Programme discussed previously.

5. Administering and managing the learning service

Meets

Partially Meets

Does Not Meet

Comments

5.1 The RTC component has adequate arrangements for administration, governance, planning, staffing, continuous professional development (of RTC staff members), reporting and self-assessment.

x

Provide evidence of how you meet the criterion. If the criterion is only **partially met** or **not met**, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.

Possible evidence:

- **Your annual training plan**

- **Your strategic training plan for the institution (if available)**
- **Training policies**
- **Plans for upgrades to the centre**
- **Professional development policies for staff**
- **Examples of staff training records**
- **Summaries of any audits or external reviews**

Graduate Faculty programmes (which include DCAO) do not undergo an external evaluation. However, post graduate programmes PhD in Atmospheric Sciences and Master in Atmospheric Sciences presented in 2011 self-evaluations to CONEAU (Comisión Nacional de Evaluación y Acreditación Universitaria, *National Committee of University Assessment and Accreditation*). Both programmes were highly evaluated receiving each one the maximum category, A. Resolution for PhD programme can be found: http://www-atmo.at.fcen.uba.ar/docs/res455_2012.pdf and for the Master program at <http://www.coneau.gov.ar/archivos/resoluciones/Res099-12C30191.pdf>

During the first half of 2016 DCAO actively participated with SMN in organizing and delivering the Spanish on line WMO Train for trainers. Some staff members and students applied both to the full and partial course and one TDP was developed in the oceanography area. DCAO will continue collaborating and participating in the final workshop which will take place in Buenos Aires during November 2016. DCAO members also participated of the 2 week OMM “Seminario Regional de Formación para los Instructores de la AR III y la AR IV”, which took place in Lima, Perú, August 2012.

5.2 If the RTC component has no national accreditation as a provider of vocational training, the RTC component can demonstrate that it carries out its training activities in accordance with the requirements of ISO 29990:2010. (ETR Note: Meeting the requirements included in this self-assessment, and meeting WMO Competencies for Education and Training Providers—WMO-No. 49, are in accordance with ISO 29990:2010)

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Provide evidence of how you meet the criterion. If the criterion is only **partially met** or **not met**, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.

Possible evidence:

- **Certificates of accreditation and accreditation reports.**
- **Evidence comparing institutional practices to ISO 29990:2010**
- **Training development processes and procedures (if not already provided)**

5.3 The RTC component produces an annual report on activities in the previous twelve months, and its plan for the next 12 months with an outlook for future years.	x			
<p>Provide evidence of how you meet the criterion. If the criterion is only partially met or not met, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.</p> <p>Possible evidence:</p> <ul style="list-style-type: none"> ● Annual reports on regional education and training activities ● Recent outlook for future years <p>The DCAO produces annual reports on the activities of the previous twelve months, “Memorias” which are public and published on our website http://www-atmo.at.fcen.uba.ar/memorias.php since 2005. These reports contain information on all personnel and activities taking place at DCAO. However these reports do not present outlooks for future years. However, we have provided information to WMO on future courses when requested. Every two years the Director of DCAO is elected by the members of the staff (professors, graduates and students). Prior to the election the candidate presents a two year plan with the objectives and activities planned for the following two years which he/she plans to put into action.</p>				
	Meets	Partially Meets	Does Not Meet	Comments
5.4a The RTC component is open to students from all countries in the Region and, subject to availability of resources, to interested countries in other Regions.	x			RTC is open and courses have no fees, but there is no financial resources to support students
5.4b The RTC component has appropriate services in place to support international/regional students.	x			
<p>Provide evidence of how you meet the criterion. If the criterion is only partially met or not met, describe what the gap that exists and what action is planned to meet it. Include attachments if necessary.</p> <p>Possible evidence:</p> <ul style="list-style-type: none"> ● Annual reports ● Description of services to support international/regional students (tuition support, library, accommodation, sports/recreation, visa, cultural induction, language support) ● Statement on any limitations to regional support <p>Students from foreign countries which enroll in our faculty have accesses to the library at DCAO and the Faculty library Dr. Luis Federico Leloir (http://www.bl.fcen.uba.ar/), which includes access to on-line journals, e-books, and all kind of material to support teaching and research</p>				

activities. The Faculty campus also has several restaurants, cafes, a doctor's office and a sports centre. They also can enrol in the University sports campus. The University has a Language Lab which where people can take courses on a variety of international and native languages, including Spanish for foreigners in 9 different levels. There are no accommodation facilities in the campus or offered by the University at other locations. The Faculty has some tuition support for students with low family incomes helping them with travelling and learning material costs, but resources are limited.

Additional information requests, if not already reported (use attachment):

1. Have you submitted annual reports during each of the last two years? If you have not, submit a 2-year report with this self-assessment.

2. Does your RTC provide cost sharing for foreign students? If you do, please provide details.

DCAO does not provide cost sharing for foreign students.

3. In what ways does your RTC advertise its courses and programmes?

Graduate courses are open to students from our Faculty and also to students from other institutions (http://www-atmo.at.fcen.uba.ar/plan_atmo.php). The list of optional/postgraduate courses (with their contents) is available in our web page: <http://www-atmo.at.fcen.uba.ar/materiasposgrado.php>. Courses are also advertised through facebook (<https://www.facebook.com/dcaouba/?fref=ts>)

The different courses are announced to the Latin American countries through the focal point google group: RA-III Education and Training National Focal Points as well as to the WMO Regional Training Centers (RTCs) in Regional Association III (South America) google group.

4. In addition to courses and seminars, what additional resources and RTC activities are used to support education and training for WMO Members? If these are already reported in annual reports, please state this.

5. What plans are there for the future developments of the RTC component that are not already described in annual reports? Include curriculum developments, infrastructure developments, and staffing changes?

This year there are elections in DCAO and a new director will be elected to be head of the department for the following two years, starting in March 2017. The director (as has been the case with all previous directors) will continue dictating courses at DCAO, carrying out his/her research programme and will be in charge of administrating, representing and attending to all matters concerning DCAO, within the Faculty and externally.

6. How does your RTC use or plan to implement distance learning opportunities for the region? Describe any instances or plans not mentioned elsewhere in the report. Also, briefly describe the success of any new, recent DL ventures.

As mentioned above DCAO has recently developed the DL course Meteorología General a distancia and this is the third year the course is offered. The first year was limited to candidates interested in studying the Meteorology programme. There were 8 students inscribed in the course and 3 fully completed it with great success. In 2015 the course was open to a wider audience, including high school teachers and RA-III, and there was

a large number of interested candidates (above 100), both national and international. More than 50 students have finished the on line course. However, such a large number of students is very demanding on DCAO staff, since two instructors (as is the usual number per course) is not enough to attend and follow each student. This year the course is open only to university students or graduates with interest in meteorology and the course is being dictated as a graduate and post graduate on line course. We are working on a new version for high school teachers and which might also be open to candidates with no university studies.

7. How are your course resources or training strategies shared in the region and/or with other WMO RTCs?

It is of interest for DCAO for Meteorologia General a Distancia course to be available in the WMO GLOBAL CAMPUS

8. What collaborative activities have you engaged in with other training institutions, if not already reported? Be specific.

Members of DCAO staff have dictated courses in Uruguay and Republica Dominicana. In particular, DCAO professor Olga Penalba, dictated:

- Three seminars in the Course: *“Generación de escenarios regionalizados de cambio climático”* which took place between 26 and 30 september 2016 in La Antigua Guatemala. It was organized by Agencia Estatal de meteorologia de España (AEMET), WMO and Oficina Española de Cambio Climático y Agencia Española de Cooperación Internacional para el Desarrollo.
- Three seminars in the *“III Encuentro sobre generación de escenarios de cambio climático regionalizados”*, which took place in Caracas, Venezuela, 23-25 November 2009. Invited through the WMO Meteorology Cooperation Programme.

In Buenos Aires, professor Sergio Dasso has dictated in two occasions, the second at the beginning of October 2016, an intensive course on Space Weather with the participation of SMN personnel and Latin American students.

9. How you have addressed recommendations from the previous RTC review?

DCAO has continued implementing new courses (listed above) and has started working with distance education (Meteorologia General) and keeps in touch with the EC Panel on Education and Training through Prof Claudia Competella

There is a new national Programme in Argentina, CELFI, (<http://www.celfi.gob.ar/>) through which it is possible to obtain financial support for students from Latin America or Argentina to attend courses or workshops in Argentina.

The interaction with WMO and DCAO has improved since the naming of a focal point at DCAO

DCAO members in collaboration with SMN staff, have worked in the elaboration of conceptual models through the VLAB project *Conceptual Models for Southern Hemisphere*. These models are used in different courses dictated at DCAO

10. What are (a) your most significant achievements of the last 5 years, and (b) your most significant challenges for the next 5 years?

The most significant achievements have been:

- The creation and implementation of a Human Resources Training Programme for Meteorology students. Scholarships are financed by the SMN and the Ministry of Science, Technology and Productive Innovation
- The creation and implementation of a Human Resources Training Programme for Oceanography students. Scholarships in this case are also financed by the Ministry of Science Technology and Productive Innovation but through Pampa Azul Project (<http://en.mincyt.gob.ar/accion/pampa-azul-9465>).
- Increase in the number of graduated bachelors
- More visibility of DCAO and its programmes

The most significant challenges will be:

- Implementing three new Programmes
 1. Licenciante in Meteorology
 2. Licenciante in Oceanography
 3. Technical (Meteorology)
- Creating the DL Aeronautics course

Signature Page: (needs to be added)