

**AURA OBSERVATORY in CHILE
& NOAO-SOUTH
ADMINISTRATION AND FACILITIES**

**SITE REPORT
FOR THE FISCAL YEAR ENDED IN SEPTEMBER 2010**



I. Introduction:

The main characteristic of this FY10 is the fact that is the first budget exercise after merging AOSS into NOAO-S and became in A&F. The FY10 Budget was formulated with practically no changes with regards to the FY09 Budget, adding just a few specific corrections, in expenses & rates of some "Per Use" services. This budgeting option was conceived as a means of generating major stability in our tenant's budgets and also to reduce potential uncertainties because of the merger of AOSS into NOAO-S.

At the end of the 4th quarter FY10 A&F closed its activities with CL\$127 million surplus, explained by Operational expenses amounting to CL\$1,302 billion against Operational revenues amounting to CL\$1,429, where CL\$49.4 come from Mountain cost centers and CL\$77.4 million from La Serena cost centers.

An important part of the mentioned Surplus has its origin in expenses planned and not executed or postponed to the following fiscal year (Road Maintenance & new Safety Officer hiring) and another part, not less important, has its origin in the significant increase observed in the "Per Use" services sold to internal or external customers (Meals, Lodging, Water, Janitorial Services).

The A&F financial plan for FY11 reaches CL\$1,712 million, 5.5% higher than the FY10 Budget. The Chapter IV of this report contains additional detail about the A&F budget.

II. Milestones:

The following milestones were achieved during FY-10

- As of October 1st, 2010 the ex-AOSS Unit -now the Administration and Facilities Division- officially and effectively merged within the NOAO South organizational structure. This complex integration process was carried out in a smooth and efficient manner, without disruption of the services provided by the ex-AOSS Unit.
- Completed the construction and installation of the second phase PACHON Hotel Building Facility and started plans for the construction of Phase 3 with ARRA funding.
- Safety highlights such as painting road traffic lines on mountain and La Serena and "0" disabling accidents during this period.
- Installation of a cylinders lifting unit at the Warehouse.
- Repair of pavements surface on the MTN roads.
- Purchase and installation of a power transformer to supply power in 220 volts for the 20-U and Hotel dormitories on Cerro Pachón.
- Purchase and installation of a new generator for the Hotel-Kitchen facilities on Cerro Pachón.
- Construction of an extension upgrade to the Co. Pachon Utility Building.
- Started the La Serena MOTEL upgrade and refurbishing.
- Upgrade and improvement of the food refrigeration truck.
- Upgrade CTIO Gate Control House.
- The Andes Lidar Project was definitively completed and delivered for operation.
- Laser firing authorizations secured with the DGAC authority for the different Laser Projects on Cerro Pachon.
- LCOGT Platform pads completed for the 1.0mt and 0.4mt telescopes.

- Emergency repair of the two frequency converter units on Cerro Tololo (300 and 500 KVA). The 300 KVA unit was repaired in house while the 500 KVA unit was repaired by a commercial source.
- Official Certification of the Medical Emergency Procedure Facilities on Cerro Tololo and Cerro Pachon issued by the Health Secretary of the Regional Government
- Relocation of the Cisternas Gate in La Serena, to address a complex safety issue originated on excessive traffic on the Cisternas avenue placing a significant risk on vehicles entering the compound on that spot.

III. FY10 Financial Results:

a. Mountain Cost Centers:

Mountain cost centers are composed by 2 kind of expenses, by one side are those called the “Shares accounts” where its main characteristic is that are hard to assign to a specific program by direct consumption like Security Services, Road Maintenance, Power Generation, among others, with a net total of CL\$308.8 million against CL\$324.1 budgeted mainly explained by major year-end Road Maintenance works that were postponed to the coming year on account of difficulties to find a contractor that could perform the work according the technical specs (for trucks) defined by the Organization. The other kind of Mountain expenses are the “Per-use” services, that conversely to the Share accounts, they represent those expenses that can be easily measured by direct consumption, like Janitorial services (per hour), Kitchens (per meal consumed) or Dormitory (per night). These cost centers totalized expenses by CL\$486.8 million actual against CL\$426.3 budgeted with actual revenues by CL\$506.7

The detailed performance by Mountain cost centers and the assigned budget for FY11 is shown in the table below.

b. La Serena Cost Centers:

Same as in Mountain, the La Serena cost centers are composed by 2 kinds of expenses, those called “Census accounts” that are the ones recovered proportionally from programs depending on the number of employees they have in Chile. Some of the expenses in this category are Security Services, Warehouse, Personnel & Payroll. The better performances in the Census category were in Safety, because of the delay in hiring a new Safety officer, and in Communication & Telephone Maintenance, explained by lower expenses because the spend plan for this activity comes unchanged from FY09, year where was planned the acquisition of radios and other communication devices. By other side there are again “Per Use” services, in this case corresponding to services performed in La Serena facilities to programs & tenants like, Water & Sewer, Garage, Maintenance and Motel. The Census accounts amounted a total actual expense of CL\$304.2 million against CL\$372.9 budgeted, with actual revenues associated by CL\$356.6 million.

c. G & A Expenses:

This category accumulates the General Administration and Budget & Accounting expenses. For the first case, General Administration expenses, the total budget was CL\$186.9 million and the actual expense was CL\$183.2 million, on the other hand, the Budget & Accounting expenses budgeted were CL\$123.4 million and the actual expense was CL\$121 million.

A more detailed performance of expenses by cost center and the consumption "Per Use" is shown in the tables below.

A&F Expenses Comparison Table (expressed in CL\$)

Description of Service	FY2010 Budget	FY2010 Actual	FY2011 Budget
Security	21,977,504	22,591,780	23,105,759
Road Maint. Gate-Quisco	50,336,185	34,933,053	54,094,526
Emergency Medical Services	132,730,275	137,792,969	144,549,994
Power Line Maint. Gate-San Carlos	46,005,660	44,834,114	47,339,504
Communicat.-Tel. Radio Maint.	26,044,891	26,749,308	24,997,937
Visitor Center	8,875,426	10,115,889	12,592,066
Power Generation	8,043,371	14,892,566	9,812,400
Road Maint. Tololo-Quisco	5,973,178	4,273,803	4,272,419
Power Line Maint.San Carlos-Tololo	2,496,740	1,632,623	3,060,472
Road Maint. Pachon-Quisco	6,776,799	3,499,984	3,372,640
P. Line Maint.San Carlos C. Pachon	14,850,849	7,512,992	14,151,624
TOTAL for SHARE FEE ACCOUNTS	324,110,879	308,829,080	341,349,342
Janitorial Mntn Services per use	49,274,650	41,642,926	31,698,310
Kitchen Operations Tololo	136,824,709	160,640,163	166,378,624
Kitchen Operations Pachon	126,477,123	160,884,444	152,528,328
Dormitory Operations Tololo	48,043,738	63,234,239	74,960,200
Dormitory Operations Pachon	40,994,197	49,655,610	50,922,627
Water Supply	24,760,815	11,616,677	24,294,140
TOTAL for MOUNTAIN PER USE ACCOUNTS	426,375,232	486,880,398	500,782,229
Safety	70,351,010	17,930,038	32,947,383
Warehouse/Shipping & Receiving	72,244,639	70,732,167	82,569,287
Inventory Control	25,744,375	24,689,231	11,376,517
Communication & Telephone Maint.	30,822,163	6,670,960	15,473,899
Security La Serena	47,185,727	53,811,404	55,559,143
Personnel and Payroll	126,589,313	130,428,811	146,349,986
TOTAL for CENSUS FEE ACCOUNTS	372,937,225	304,262,612	344,276,215
Water & Sewer Per Use	18,285,440	17,622,375	20,713,360
Garage & Transport	47,347,447	55,287,508	54,995,001
Maintenance Group Per Use	44,550,947	54,786,661	44,232,689
Shuttle Carry All Transportation	16,215,688	26,594,606	27,457,757
Janitorial Services La Serena	35,821,824	23,970,669	35,275,925
Motel	26,843,018	23,709,234	26,890,520
TOTAL for LA SERENA PER USE ACCOUNTS	189,064,364	201,971,052	209,565,252
Gen. Administration	186,983,795	183,234,465	188,336,119
Budget & Accounting	123,476,108	121,000,205	127,792,021
Total G&A Expenses	310,459,903	304,234,669	316,128,140
Grand Total	1,622,947,603	1,606,177,811	1,712,101,178

A&F Q's of Consumption per Service Table

Mountain "Per Use" Service	FY10 Budget q's	Actual q's FY10	% Over/Under Budget
Janitorial Mntn Services	5,008	4,320	-14%
Kitchen Operations Tololo	13,067	16,629	27%
Kitchen Operations Pachon	15,722	16,460	5%
Dormitory Operations Tololo	4,589	6,072	32%

Dormitory Operations Pachon	1,901	2,325	22%
Water Supply	1,863	2,410	29%
Water Transportation	943	623	-34%
La Serena "Per Use" Service	FY10 Budget q's	Actual q's FY10	% Over/Under Budget
Water & Sewer Per Use	5,469	5,323	-3%
Garage & Transport	770	2,144	178%
Maintenance Group Per Use	2,895	4,034	39%
Shuttle Carry All Transportation	538	907	69%
Janitorial Services La Serena	2,696	2,763	2%
Motel	993	1,219	23%

It is important to say that part of the budget preparation process is the estimation of the q's to be sold in the coming year to the programs, and this time, as usual, the budgeted q's are the resulting of crossing information from historic usage and also requesting information from Programs regarding their own estimates of consumption for the coming year.

- d. A summary of the FY10 financial results and origin of Surplus by category of expense is shown in the following table:

NOAO-S A&F Financial Report - FY2010 For the period ended in			September-2010	
	REVENUES	EXPENSES	(SURPLUS)/DEFICIT BY KIND OF FEE	In %
SHARE FEE ACCOUNTS	(338,446,430)	308,829,080	(29,617,349)	23%
CENSUS FEE ACCOUNTS	(356,641,877)	304,262,612	(52,379,265)	41%
MOUNTAIN PER USE ACCOUNTS	(506,730,952)	486,880,398	(19,850,553)	16%
LA SERENA PER USE ACCOUNTS	(227,525,823)	201,971,052	(25,554,770)	20%
Total (Surplus)/Deficit for the Period	(1,429,345,081)	1,301,943,143	(127,401,938)	100%

The indicated Surplus (app. US\$260,000) needs to be deducted by the sum of US\$105,728 corresponding to Enrique Figueroa's time dedicated to support A&F Operational activities that were not properly reported in the time sheet system. Once deducted the E. Figueroa's allocation, the FY10 Surplus is about US\$154,000 and will be used to fund several infrastructure projects currently in process of planning and study, like the new phase of the Pachón Dorm & Dining room and the fuel tanks replacement at Cerro Tololo.

e. FY2011 Budget:

The philosophy of this budget is still the same of previous years in terms of being zero sum with different kind of rates for its services rendered and activities developed in the Mountain and in La Serena depending on if it is an activity easily measured based on consumption or not, and considering that the activities will be carried out under normal operational conditions, or in other words, not considering special funding for unexpected emergencies. The development of this budget did follow the same methodology used in prior budgets of this operational Unit, a detailed analysis of expenses and revenues (internal & external) by cost center and object code, using input from historical accounting records and other sources of data, like statistic information maintained for reporting

purposes and also, when has been necessary, usage projections from Programs to forecast their future consumption for some specific services.

The economical assumptions made to develop the FY11 budget were an annual Inflation of 3% and a peso/dollar relation of CL\$500 per US\$1, on the operational side, we assumed that the activities will be performed in the same way and with similar resources than in FY10.

The main considerations reflected in this budget are:

- A 5.5% of increase in the total expense in comparison to the FY10 budget.
- The mentioned increase is a combination from 0.79% of increase in Payroll items, where Payroll represents a 65% of the total budget, and a 9% of increase in Non Payroll items, that at the same time represents a 35% of the total budget.
- The CL\$1,105 million of payroll includes CL\$40.4 million of severance payments by retirements.

FY11 A&F Rates (all figures in CL\$):

Kind of Fee	FY11	FY10	Variation
2-m Shares:			
Tololo	77,208,938	74,960,134	3%
Pachon	78,211,644	75,933,635	3%
Census Fees:			
La Serena Based employee/yr	579,850	562,961	3%
All Places All staff Census employee/yr	1,692,311	1,643,020	3%
PPC Census (non AURA Sites)	656,334	625,080	5%
Per-use Mountain Facilities:			
Water – Tololo	6,791	6,530	4%
Water - Delivered to Pachon	11,437	11,176	2%
Tololo Meals	9,821	9,821	0%
Tololo Lodging	13,260	13,000	2%
Pachon Meals	9,821	9,821	0%
Pachon Lodging	39,377	37,942	4%
Janitorial Services	10,209	10,009	2%
Per-use La Serena:			
Shuttle Transportation Carry All	30,000	28,280	6%
Garage	11,941	11,372	5%
Maintenance Group	13,851	13,851	0%
Janitorial Services	12,280	12,280	0%
Motel	28,000	27,000	4%
Water and Sewage	890	857	4%

These set of rates were developed following the OMB criteria of “Full cost Recovery”, same as in prior years, and, as was said before, considering historic & statistic information of consumption and level of expense by service.

IV. Infrastructure & Other Projects to be developed in FY11:

There is an extensive list of projects in folder to be executed or to be studied in terms of feasibility, opportunity and funding during this fiscal year, some of them are already in execution, although in its first steps, but majority of them will be developed and hopefully be executed along FY11.

Following is the list of projects in folder for FY11:

Project	Status
Tololo mountain fuel tanks renewal	In process, in its final phase of certification.
Swimming pool certification	In process, in its final phase of certification.
USL & Regless implementation	In process, expecting to be finished in April-May
LPG Tanks certification	Not yet started.
Landfill construction & certification	Not yet started.
Tennis Court repairing	Not yet started.
Roofing repair La Serena	Not yet started.
New Pachón Kitchen & Dining Fac.	In Progress.
Machine Shop building expanding	Not yet started.
Court for driver’s training	Not yet started.

- As most of these projects are still in phase of study, there is not a formal date of starting and completion nor an estimate cost execution.
- The funding of these projects is also still in study, but it is expected that a fraction of the FY10 Surplus goes to funding, at least partially, of some of these projects.

V. FY11 F&A Milestones:

- Complete phase 3 of the Cerro Pachón dormitory and dining facility. This third phase includes a kitchen, dining area, and multi-purpose area that can be used for meetings as well as to meet future needs such as expanded dining facilities. This project is fully funded from ARRA funds.
- Complete refurbishment of the dormitory and dining facilities on Cerro Tololo, including major repair efforts at two of the three dormitory buildings and upgrades to the third dining/dorm facility. This is an ARRA-funded project.
- Begin the refurbishment of the water system that brings water up to Cerro Tololo and supplies water to the facilities on Cerro Pachón.
- Remove the gasoline pump facility in La Serena; replace the gas and diesel pump station on Cerro Tololo to meet new safety and environmental regulations.
- Begin operations of an upgraded network connection of 1 Gbps to Santiago and to the continental US network infrastructure (Internet2 and National Lambda Rail systems).

- Support pre-construction activities for LSST, including removal of approximately 10 meters off of the top of the site, and preparation of the site for construction.
- Review all AURA program and tenant agreements, replacing references to AOSS with references to the NOAO South Administrative Services and Facilities Operations groups and more clearly defining the roles and responsibilities of AURA-O, NOAO South, and the programs and/or tenants themselves.

VI. ARRA Projects:

NOAO-S was benefited with funds from the U.S. American Recovery and Reinvestment Act (ARRA) package to develop several improvement & renewal projects in the AURA Site facilities.

At September 30th FY10, the status of completion of each ARRA project date is the following:

ARRA Stimulus Projects (all figures expressed in US\$)							
Account	Description	Project Leader	Funds US\$	Status			
				Completed	In Progress	Planning	Pending
Stimulus Infrastructure – CTIO							
N-WC100-001	CT/CP Water System Renovation	Figueroa	400,000			X	
N-WC100-002	Dormitories Repair & Renovations	Figueroa	480,000		X		
N-WC100-003	CP Kitchen & Dining Facility	Figueroa	450,000		X		
N-WC100-004	Coude Room Upgrades/Handling new instruments	Gregory	100,000		X		
N-WC100-009	CT UPS Upgrade	Brehmer	67,000	X			
N-WC100-010	Mtn Electronic Lab Equip Renewal	Brehmer	67,000	X			
N-WC100-011	CP Dorm Emergency Generator	Figueroa	60,000	X			
N-WC100-012	Mtn Meeting Rooms Renovation	Lambert	20,000		X		
N-WC100-013	Mtn Road Guardrail Installation (Freq. Conv. /Gen.)	Figueroa	150,000		X		
Stimulus Infrastructure - La Serena							
N-WC200-004	Replacement OTDR Unit	Lambert	25,500	X			
N-WC200-005	LS Compound Water System Renovation	Figueroa	100,000			X	
N-WC200-006	LS Meeting Rooms Renovation	Lambert	40,000			X	
N-WC200-007	Security Fencing Repair LS Compound	Figueroa	40,000			X	
N-WC200-008	Vehicle Fleet Renewal	Figueroa	188,000	X			

VII. Conclusions

FY11 looks like a year full of new challenges not only in terms of the infrastructure projects to be developed, but also by the permanent threat of eventual budget cuttings originated in the U.S. political & economical situation and by the negative effect of having an adverse exchange rate, these factors will imply from us an additional and permanent effort in carrying out in the more efficient and creative possible way our supporting & adding values activities, from our operational & management view, to our core mission.