

Appendix 11

PERFORMANCE RESULTS 2000-01

A summary of the 2000-01 performance results for the seven Major Outputs (within the four Output Groups), according to the measures published in the Portfolio Budget Statements 2000-01 for the Environment and Heritage Portfolio (Budget Related Paper No. 1.7).

Output Group 2.1 Meteorological and Related Data and Products

Table 11.1 Summary of 2000-01 performance in terms of the quality, quantity and price of Meteorological and Related Data and Products.

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUALITY	Percentage of scheduled observations from the regular surface, upper air and space-based networks received on time and within prescribed limits	85-95%	88-98%
	Duration of significant outages of major items of field equipment	7-22 days	5days (Av.)
	User satisfaction with the functional capacity and availability of mission critical communication system components	90%	95%
	User satisfaction with the functional capacity and availability of mission critical computing system components	90%	91%
	Accuracy of centralised analyses and forecast guidance as measured by statistical evaluation procedures		
	– 72, 120 and 168-hour Anomaly Correlation	75,55,40%	84,63,42%
	– Gain in skill of model forecasts over persistence	30	31.6
	– Error in Model Output Forecast Maximum Temperatures	2.4°C	3°C
	– Error in Model Output Forecast Minimum Temperatures	2.1°C	2.5°C
	– Error in 24-hour sea-state forecasts	0.6m	0.7m
	Percentage of numerical guidance products delivered before scheduled deadlines for dissemination	95%	97%
	User assessment of the value of forecast guidance product components	90%	86%

Table 11.1 (continued)

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUANTITY	Numbers of fully operational stations:		
	– Upper air	50	50
	– Synoptic (including automatic weather stations)	900	819
	– Rainfall	7,500	7,415
	– Drifting buoys	12	11
	– Voluntary observing ships	100	86
	– River height	740	690
	– Weather watch radars	50	50
	– Satellite ground	11	11
	– Solar radiation	17	14
	– Total ozone	5	5
	Number of inter-office communication links operational	97	90
	Number of automated data collection links operational	903	855
	Number of international communications circuits operational	9	11
Number of Regional Forecasting Centres	7	7	
Number of AIFS-equipped offices	28	27	
Number of numerical guidance products issued by NMOC	1,538	1,872	
Number of systems providing distinctive guidance products	10	10	
PRICE	Observational data	\$93.137m	\$84.006m ¹
	Processed data and products	\$37.805m	\$36.790m

¹ The lower than planned price for observational data was associated with a late change in accounting practices, whereby the capital use charge is no longer expensed.

Output Group 2.2 Meteorological and Related Research

Table 11.2 Summary of 2000-01 performance in terms of the quality, quantity and price of Meteorological and Related Research.

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUALITY	Number of BMRC scientists invited to serve on external advisory committees, etc.	41	86
	Number of invitations received to present papers at external conferences and workshops	15	13
	The annual report and all workshop and contract project reports produced in good time	Scheduled date	Scheduled date or earlier
	The effectiveness of the transfer of technology to the NMOC and the NCC to be assessed through evaluations of systems transferred during the year	Individual assessment	Successful
	The international scientific reputation of the BMRC to be assessed by the current review of the BMRC	High	Very High
QUANTITY	Number of viable research groups focussed on priority research issues	6	6
	Numbers of research publications, including refereed journals, articles, book chapters, conference papers and miscellaneous reports	85	121
	Number of external collaborative projects undertaken	65	79
PRICE	Pure Research	\$1.086m	\$0.872m ¹
	Strategic Research	\$5.317m	\$3.628m ¹
	Applied Research	\$3.060m	\$6.169m ¹

¹ The revision of the structure of the research groups in BMRC altered the balance of resources across the individual outputs.

Output Group 2.3 Meteorological and Related Services

Table 11.3 Summary of 2000-01 performance in terms of the quality, quantity and price of Weather Services

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUALITY	Percentage of users surveyed who indicate that public weather forecasts and warnings are partly or completely accurate	85%	95.7%
	Percentage of users surveyed who indicate that public weather forecasts and warnings are becoming more accurate or are maintaining current levels of accuracy	85%	87.4%
	Percentage of users surveyed who indicate that they are 'satisfied' or 'very satisfied' with weather forecast, warning and information services	90%	91.2%
	Percentage of users surveyed who indicate that weather forecast, warning and information services are received in time for them to make their decisions	90%	84.3%
	Percentage downtime for Internet access services	0.1%	0.26%
	Percentage of commercial contracts completed on time	90%	98%
	Percentage of existing clients renewing commercial contracts	90%	90%
QUANTITY	Number of public weather warnings issued	9,000-13,000	19,699
	Number of public weather forecast and information bulletins issued	500,000-550,000	451,333
	Number of accesses by telephone/facsimile for automated weather service delivery systems	10 to 12 million	5.63 million
	Number of accesses by the Internet for automated weather service delivery systems	74-150 million	422 million
	Percentage growth in revenues of the Special Services Unit (SSU) [#]	5%	-33%
	Percentage increase in the number of SSU employees [#]	5%	15%
PRICE	Severe Weather Warning Services	\$4.310m	\$4.248m
	Public Weather Services	\$9.844m ¹	\$13.312m
	Marine Services	\$1.341m	\$1.549m
	Aviation Weather Services	\$15.502m ¹	\$13.591m
	Defence Weather Services	\$3.555m	\$3.323m
	Special Weather Services	\$2.280m	\$2.285m

[#]Targets and actuals for these measures relating to the Special Services Unit (SSU) relate to all SSU activities reported under Weather Services and Consultative Services.

¹ Targets were revised post-budget following reattribution of costs.

Table 11.4 Summary of 2000-01 performance in terms of the quality, quantity and price of Climate Services.

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUALITY	Percentage of users satisfied or very satisfied with climate data services	85%	92.4%
	Percentage of regular archive entries into the national climate data base successfully completed within preset quality control standards	95%	99%
QUANTITY	Number of climate data, information, monitoring, prediction and advisory services provided	260,000	421,089
	Telephone, facsimile and the Internet accesses to automated climate service delivery systems	600,000	1,418,584
PRICE	Archived Data	\$3.243m	\$4.610m
	Climate Data Service	\$4.262m	\$4.003m
	Climate Monitoring Service	\$2.959m	\$2.633m

Table 11.5 Summary of 2000-01 performance in terms of the quality, quantity and price of Consultative Services

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUALITY	Percentage of users 'satisfied' or 'very satisfied' with consultative meteorological services	85%	92%
	Percentage of commercial contracts completed on time	90%	98%
	Percentage of existing clients renewing commercial contracts	90%	90%
QUANTITY	Number of consultative services provided	8,000	8,254
	Percentage growth in revenues of the Special Services Unit (SSU) [#]	5%	-33%
	Percentage increase in the number of SSU employees [#]	5%	15%
PRICE	Meteorological Advisory Service	\$0.192m	\$0.226m
	Special Investigations	\$6.976m	\$4.873m ¹

[#]Targets and actuals for these measures relating to the Special Services Unit (SSU) relate to all SSU activities reported under Weather Services and Consultative Services.

¹ The lower than expected price achieved for Special Investigations was associated with a downturn in international projects.

Table 11.6 Summary of 2000-01 performance in terms of the quality, quantity and price of Hydrological Services.

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUALITY	Percentage of users surveyed 'satisfied' or 'very satisfied' with hydrological data, information, advisory, and flood warning services	85%	N/A ¹
QUANTITY	Number of hydrological data, information, advisory and flood warning services issued	150,000	400,000
	Number of Internet access to automated hydrological service delivery systems	275,000	660,000
PRICE	Water Resources Assessment	\$0.336m	\$0.439m
	Flood Warning Service	\$4.173m	\$4.595m
	Hydrometeorological Advisory Service	\$1.028m	\$1.290m

¹Surveys have commenced but no statistically significant data yet available.

Output Group 2.4 International Meteorological Activities

Table 11.7 Summary of 2000-01 performance in terms of the quality, quantity and price of International Meteorological Activities.

	PERFORMANCE MEASURE	TARGET	ACTUAL
QUALITY	Australian influence maintained through occupancy of important senior positions in the WMO, e.g. as President of WMO, as Presidents or Vice-Presidents of technical commissions and as chairpersons of working groups	14	16
	Value of scientific exchange visits and cooperative projects undertaken with other countries	maintained	maintained
	The flow of accurate observational data to Australia increased through provision of technical assistance and meteorological training to the National Meteorological and Hydrological Services of developing countries	maintained	maintained
	Formal obligations of the roles of the Melbourne World Meteorological Centre and the Melbourne and Darwin Regional Specialised Meteorological Centres, as designated by the WMO, and for Melbourne as an International Civil Aviation Organization Regional Area Forecast Centre fulfilled	100%	100%
	Demand for Australian officers to participate in WMO activities	30-40	38
	Satisfaction of regional developing NMHSs with Australian technical cooperation	high	high - very high
QUANTITY	Australia represented in all WMO constituent bodies	100%	100%
	Major international meteorological meetings hosted in Australia	3	12
	Active bilateral cooperative programs maintained (China, India, Indonesia, Japan, Republic of Korea, Russian Federation, Vietnam)	7	8
	AusAID projects offering training courses by BMTC in Melbourne to help develop meteorology in developing countries supported	100%	100%
	WMC Melbourne, RSMCs Melbourne and Darwin, Integrated Global Ocean Services System Specialised Oceanographic Centre Melbourne and ICAO Regional Area Forecast Centre Melbourne maintained	6	7-8 [#]

Table 11.7 (continued)

	PERFORMANCE MEASURE	TARGET	ACTUAL
PRICE	WMO contribution	\$0.996m	\$1.115m
	Multilateral activities	\$1.259m	\$1.844m
	Bilateral activities	\$0.100m	\$0.100m

#The ICAO Regional Area Forecast Centre responsibility ceased during 2000-01.