

PART II DATA EXCHANGE

Development of the European Position

The Europeans were getting ready to codify their new data exchange policy with or without the adoption of the WMO practice. This firming up a new policy was taking place within EUMETSAT, ECOMET (previously called EURONET), and the ECSN. To a lesser degree this was taking place within the ECMWF because of its designation of a WMO Regional Specialized Meteorological Center and the proposed close sharing of telecommunications with the World Weather Watch.

In 1994 EUMETSAT established a policy that defined an agreed set of guidelines for access to its satellite data. The new policy would establish a fee in certain cases, particularly for those commercial users who make a profit without contributing to sustaining the system. EUMETSAT committed to provide a basic set of data free of charge to the NMSs that are part of the Members of WMO. The data is to be used for internal purposes with the High Resolution data being provided in an encrypted mode that would require a special Meteosat Key Unit (MKU).

In August of 1994, the SG wrote to the President of EUMETSAT expressing concern regarding the potential impacts on WMO of the recently passed resolution on the new “conditions of real time access to HRI Data.” The letter pointed out in EUMETSAT’s own words that their satellites represent an important contribution to the World Weather Watch. Many of the Directors of the European Met Services expressed displeasure to the SG over this letter that many thought was in violation of the sovereignty of EUMETSAT. In any case, the Director General of EUMETSAT quickly replied to the SG and informed WMO officially of the new “conditions of real time access to HRI Data,” and explaining that many countries would get HRI data for the first time. The letter also indicated that the EUMETSAT Council had not completed its deliberations on data policy and more information would be forthcoming. The letter responded to a suggestion that EUMETSAT meet with the WGCOM by stating, “EUMETSAT as an independent body needs to establish its own policies, being aware of all external developments, not merely those of the WMO.” *It is quite interesting that the European NMSs separated out their major contributions of Satellite (EUMETSAT) and NWP products (ECMWF) to WMO programs so that they did not have to follow WMO policies. Should the US set up such an arrangement, perhaps with Canada?*

In early January, 1995, A letter jointly signed by the Chair of the EUMETSAT Council and the Director was sent to the SG and directly to PRs of all WMO Member States. The purpose of the letter was to clarify EUMETSAT’s position with regard to data policy. The letter indicated the policy would go into effect on 1 September 95 and principally effect the access to High Resolution Imagery at a frequency of greater than once every six hours. While the 3 hourly data would be encrypted it would be free to all NMSs. High Resolution data on a frequency of hourly and half hourly would be subject to a graduated fee for countries with a GNP per capita above 2000 US dollars. EUMETSAT justified their policy so as (1) to enlist other European Met Services to become EUMETSAT members (Greece, Turkey and Portugal were at present getting the data without benefit of membership) and (2) to provide a mechanism for private sector companies to contribute to the infrastructure. *Again, was this another European tactic to solve a national and regional problem (i.e. Turkey, Greece, and Portugal membership) through a global mechanism? Secondly, Was there a crack appearing in the armor of WMO with 3 or 4 Members (e.g. USA, Japan, Russia, China) providing the major part of the geostationary space based observing with out any fee or restriction, and one group of countries providing 20 % of the system under an encrypted fee based system?*

In March of 1994, the European NMSs considered a draft paper for establishing a European Climate Data Policy. The policy draft appeared to have been drafted by a non scientist. For example, the introduction included the following paragraph, “As Climate data are very valuable in the commercial sense, great care is needed when this information is provided to research groups. Therefore, researchers and organizations that fund and sponsor them in Europe and America should accept that approval of research projects should

follow a careful analysis of the data needed and a proper agreement with NMSs on the availability of the data requested and their cost.”

The European Climate System Network (ECSN) indicated that its draft data policy is “founded on the belief that the responsibility for maintaining and improving the global meteorological and climate (sic) database, and most of the national climate data rests firmly with the world’s NMSs, which largely own them and that the practice for data exchange follows the Annex I to Resolution 20 of the WMO EC45.” The ECSN did make clear the pricing policy being used by the European NMSs. The appropriate fee to be charged for the data will be fixed according to certain factors. These factors include (a) the intended use of the data, (b) the market price charged by the user, if any, (c) the duration of usage of the data, (d) the number of end users, (e) the marginal costs, and (f) the resources (e.g. computer time, staff power, etc.) needed to provide the data. The ECSN also indicated it is responsible for giving access to and charging through ECOMET, for data products and services. This would include international organizations including WMO, EUMETSAT, and ECMWF. Most of the European NMSs did agree with the ECSN draft policy and principles, but suggested that approval be deferred until a decision is made by the Commission of the European Union on the ECOMET.

On 25 April the Europeans sent to the PRs of WMO a letter explaining their position on the proposed Draft Resolution. Julian Hunt on behalf of ICWED sent the letter. The letter pointed out that the WGCOT proposal was an “optimal consensus” that was devised to achieve a goal, but did not fully reflect the positions of all the ICWED. The letter was cogent and convincing by pointing out that (1) If a Member (note the term is not NMS) does not re-export data and products there is no need to distinguish between Tier1 and 2 internally. Also ICWED makes a commitment to include Tiers 1 and 2 at least the same data and products that are at present in the GTS and even to broaden this set to the maximum possible.

In preparation for putting the European position forward at Congress, Lebeau published a major essay in *La Meteorologie* in early May entitled, “Free Exchange Endangered by Commercialization.” **The essay suggests that most of the problems associated with free and unrestricted data exchange come from private firms. While making the case for the two tier system he suggests that the opposition will (1) “accuse the new practice of more or less credible misdeeds, and (2) assert that one is not ready, that the question must be studied and the decision must be postponed until later.” Finally, the essay also suggests, and to some degree threatens that if the Congress does not accept the two tier approach, the WMO will suffer a major setback. It should be pointed out that Lebeau was promoted to Director of CNES in France just one month prior to Cg-XII and he was replaced by Jean-Pierre Beysson.**

Activities of the Private Sector

The growing perception and warning signs of the impact of the European NMS commercialization caused a consolidation of global private meteorological firms. The formation of the Association of Independent Weather Services (AIWS) had as a main objective to derail the proposed ECOMET data policy that was thought to be in violation of the Treaty of Rome specifically regarding competitiveness.

The AIWS considered most of the infrastructure supporting the World Weather Watch in Europe to fall within the category of “essential facility” as specified in the rules of the European Commission. The Commission has held that those companies owning an essential facility should give competitive access on terms no less favorable than those give to itself. Further the companies must treat competitors as users of the facility on equal terms with its own operations. The EC has described an essential facility as a facility or infrastructure without access to which competitors can not provide services to their customers.

The AIWS noted the historic monopoly position of the European NMSs has led to unhealthy and restrictive commercial practices in the provision of services by them, both within their own territories and outside. The private sector recognizes the need for a contribution to the “core” costs of the infrastructure, taking the

view, however, that this contribution should be made on an equitable basis which can be audited. *Was this recognition of a contribution to the infrastructure too little too late by the private sector?*

Development of the US Position

Beginning in early 1994, several groups within the USA stepped up their activity in helping either to defeat the proposed resolution and/or formulating the guidance to Friday in his role on the EC and WGCOP as well as the ultimate position paper for Cg. In fact, in the Spring of 1993 the Executive Committee of the AMS established an *ad hoc* Committee on International Data Exchange to be chaired by Dr. Robert White. *The dilemma even at this time, was to put forward straightforward unambiguous opposition, try and water down the proposed resolution, or buy more time for studies related to impact and understanding of the effects of the resolution.* Several raised the question that the proposal tries to solve national problems (i.e. funding of European Met Services) by having an international organization take inappropriate actions. There also was a body of people who felt the best strategy would be to defeat the proposal at EC46 thus making life easier for Congress. In this respect, that when EC considers a proposal on a subject to be sent to congress, the decision is normally by consensus; however if the issue is brought to a vote (secret ballot) it can be defeated by 13 of the 36 votes (1/3 of the EC members plus one). *Should Friday have pursued this tactic?* Getting the needed votes may have been difficult and most likely would have required the support of Zillman and the SG as well as support or at least neutrality by the President of WMO, Zou of China.

One of the most active people in the early policy discussions within the USA, was Stan Ruttenberg, chair of the ICSU panel on Data Centers and a scientist at NCAR. In an early communication with Rick Anthes, President of UCAR, Ruttenberg pointed out that ICSU felt that (1) selling data is a futile attempt to cover costs of meteorological operations, (2) encouraging countries to decide which of their data are of commercial value for purposes of resisting access is “a sure-fire disaster for the future” and (3) once such a road (i.e. Tier 1/Tier 2 proposal) is entered, “there will be no turning back for a long time.” Ruttenberg also felt the the proposal was a smoke screen in the sense it would, in reality, not increase the amount of data available research. *Has this, in fact been shown to be true?* The NCDC in Ashville was already reporting 30-60% drops in data from some countries.

The Bob White committee reported its findings to the AMS in January, 1994. The AMS council accepted the report and asked that the President of the AMS, its Executive Director and White implement the recommendations in the report which included, (1) contact high level US government officials to ensure a broad view of the problem, (2) though the UCAR inform the University community of the proposal and seek their views, (3) enlist the support of Meteorological Societies in other countries, and (4) Publish the *ad hoc* Committee report in the Bulletin of the AMS and the AGU. Besides publishing in the BAMS, it was also published in an AMS Newsletter which precipitated a reply from Julian Hunt (Director of the British Met Service) speaking on behalf of the Informal Conference of Western European Directors (ICWED). The tone of the Hunt letter clearly began to show the angst that was building between Europe and the USA. Hunt stated, “It is to be hoped that Council (i.e. AMS) is better informed than that report suggests.” Hunt’s letter clearly indicates that there is a significant sparsity of data at present to meet WMO Member needs. This position is somewhat different than Lebeau of France who indicated that in some places there was too much data and thus was the reason for France unilaterally eliminating data from international exchange. Hunt also said, “Your report implies that the new practice is designed to restrict US firms from operating in other countries. This is quite false. ... both the indigenous and foreign private sector will be expected (and enabled) to purchase those data and products they required from the local NMS. I am ensuring that the terms (quite interestingly Hunt did not use the word cost – ed note) under which the data and products are made available to the private sector are the same as those applied to the commercial division of the Met Office.”

The October, 1994, BAMS published the report of Anthes in dealing with the *ad hoc* AMS committee recommendation to inform the University Community and seek their views. In the published Anthes

article, It was pointed out that contact had been made with 100 Scientific Institutions and over 200 Scientists. As a point of interest, Anthes did make the report available to Friday on 1 June for use In EC46. The overwhelming number of responses from the US and foreign Scientists expressed their deep dismay that anyone would tinker with the existing policy and practice of free and unrestricted exchange of scientific data. There were little or no specifics in any of the letters, including the existing pricing policy used in Europe in UK even to the Academic Community. Perhaps the general nature of the replies was because of the quick turn around sought in putting together a unified Scientific position. *Did this massive voice of the Scientific community help when the proposed resolution language already said the objective was free and unrestricted exchange? Would not specifics and anecdotes of high prices and the contribution to infrastructure by the academic sector in special observing been more useful?* While the general support did not effect the concept of 2 tiers, it did provide a major impetus for EC 46 to add the following: “Members must commit themselves to broadening and enhancing the free and unrestricted international exchange of meteorological and related data and product. The EC also included providing for free and unrestricted access to the research and education communities for their non-commercial activities and strengthening commitments to the WMO and ICSU Data Centers.” The use of the term “non-commercial” appears to be quite restrictive and there is little or no record of debate on this term. There seems to be a generally held view that research cannot be commercial! *Because of special expertise that is available at a USA university, it is contracted by a European City to do a study or equivalent of an environmental impact, would the university in use of tier 2 data be in violation of the proposed resolution?*

Many in the US felt that the European Met Services were pushing the commercialization issue without the knowledge and or support of their overall government. As a result it was decided to raise the issue within the framework of the G7 Ministers of Science and Technology. The US position included the following statement, “It is not clear that the policies which the heads of European Meteorological Services are pursuing in WMO are either approved by national policy makers or consistent with other government policies. This is especially true for the policies dealing with national sovereignty, international trade, and legal commitments to exchange of climate data under the FCCC.” The position also pointed the reduction of data already internationally exchanged, and suggested that reciprocal action by the USA was not desirable pointing out no advantage in a “data war” that nobody would win. *Was this a good tactic or strategy to take at this time – To not consider withholding USA data at any cost, and to make clear that this option would never be pursued?*

The whole issue of what was essential or basic data and products to be exchanged with no strings attached had never been defined. As a result, EC46 requested that the WGCOP at its 3rd session (November, 1994) identify a mandatory component of Tier 1. Further it was suggested that it contain (a) a basic synoptic network of surface and upper air data, (b) all available *in situ* observations of the marine environment, and (c) data needed to provide a good representation of climate at global and regional scales. A further indication of the angst that was occurring between the USA and Europe was evident from the forced language in the EC46 report. The language included the following: “Movement away from the traditional free and unrestricted exchange of data and products, ultimately, could lead to diminution of co-operative world meteorology as it as existed. The traditional product was already under growing pressures as the result of commercialization activities including those of NMSs. A negative impact on co-operative world meteorology was more probable if the issue was not addressed and the current practice not modified.”

Following EC46, Baker undertook a 10-day trip to Europe to discuss several issues with EUMETSAT, ESA, CNES, and the European Union. Both Satellite and WMO data policies were to be discussed. The summary of data policy discussions from this trip indicated that (1) The French were upset that the US began to make available high resolution data from Intelligence Satellites which were higher in resolution and available at much lower cost, (2) differences still remained on how to handle data deniability on the planned polar orbiting satellites, (3) EUMETSAT was to implement a new policy on exchange of information from METEOSAT, and (4) Data exchange policies for EUMETSAT and ECMWF would try and mirror WMO but may in fact be different.

The most interesting aspect of this trip was that Baker did not use this platform to forcefully put forward the emerging USA position. He also accepted, without comment, the EUMETSAT policy that certain NMSs would have to pay for hourly and half-hourly METEOSAT data if their country had a GNP per capita over \$2000, even if related to Natural hazardous warnings. Finally, Baker did not take advantage of the meeting with the EU to put forth the case for the private sector on perceived unfair pricing by European Met Services through ECOMET.

By August, 1994, formulation of a US policy on the WMO proposal was formally being developed under a Joint CENR/CISET working Group on International Data Exchange. The major players in this development included NSF, The State Department, NASA, NOAA, DOD, DOE, and the Office of Science and Technology Policy. The US position was to be built around (1) endorsing the free and unrestricted international exchange of data and products in the WMO proposal, (2) Reject the proposed two tier practice and replace it with a national legal mechanism, and (3) accept the guidelines on practices with some recognition of the benefits of private public partnerships. In order to put into perspective this statement, it should be pointed out that the US private sector conducts only five percent of its business overseas. *Could it be argued that the US contribution to the WWW data and product flow most likely exceeds by 5% any other Member of the WMO and most likely a combination of the European NMSs.*

It was important that the US position be fairly well established by the WGCOP-III in November 1994 in order to avoid a major breakdown at the Congress. By WGCOP-III the US position was to try and accommodate the Europeans by acknowledging their concerns and to look to further studies on the two tier system. Many recognized that this most likely would be difficult to get accepted so it was decided that the issue should be raised to a governmental level above NMSs through a State Department demarche. As a contingency, it was also decided that WGCOP-III should make some provision in any two-tier proposal that the mechanism for any changes should be long term, perhaps only by Congress. There is some information, based on personal contacts, that Friday was a proponent of the two tier system as the only way of solving the issue, and that many of the US concerns could still be accommodated in the language of the proposal. In the desire to be complete, it must be said that Friday at this point was still a candidate for the First Vice President of WMO and any hope of winning would depend on the votes of Europe. *Should the US, at this point, force Friday to withdrawal as a candidate for the WMO first Vice President in order to avoid any perception of accommodation to the Europeans?*

The USA, as was done in the past, attended the eleventh session of WMO Regional Association I (Africa) as an observer. In an attempt to possibly rally the African Members behind an acceptable position on data exchange, the US spokesperson, pointed out that the USA was motivated in supporting WMO Voluntary Cooperation projects because of the policy of free and unrestricted exchange of data and products. While this observation might be considered a minor threat, it in fact was a significant point in promoting the WWW and recognizing that the USA should invest in the capital costs of helping developing countries establish "essential facilities" such as upper air sites. While the USA largess has been significant in Africa, in recent years, both the French and British NMSs had significantly increase their support to African NMSs that created a special relation with countries of the commonwealth and those on the Lomi convention. In fact the Regional Association ended up expressing "the desire for urgent action so that the practice and guidelines could be considered for adoption by all Members of WMO. At this point, the RAI NMSs were convinced that they could drive some revenue from their meager observation base so as to help fund their service, and they also were concerned that private sector entities such as CNN (strangely BBC and other European international broadcasters were hardly ever mentioned) would put them out of business.

At the start of 1995, the US position for Congress was still undergoing formulation. One of the background information papers dealt with the existing references to US Policy Statement on Data Management for Global Change Research. This paper correctly pointed out that the phrasing agreed to in several major international policies included reference to some form of free and unrestricted exchange of data. The policy agreements included (1) the Framework Convention on Climate Change (FCCC), (2) Agenda 21 of the UN Conference on the Environment and Development

(UNCED), (3) the charter for the Inter-American Institute for Global Change Research, (4) the International Geosphere-Biosphere Program (IGBP), and (5) the UN Intergovernmental Oceanographic Commission Data Management Policy for Global Ocean Programmes. The main purpose of this paper was to assure others on the policy consistency of the USA in the broad environmental issues. Perhaps most important in support of this policy was the Office of Management and Budget Circular A-130 which basically that the US data policy is to “provide full and open access to data acquired with public funds at the marginal cost of reproduction.” This appears to clearly indicate that any policy of which the US is a participant that is not full and open is in violation of law. By the end of January, 1995, the US draft policy was leaning toward an opposition of the Two-Tier data exchange policy. This view was strongly held by NSF and the State Department. Should a vote on the WMO proposal be taken, the US would need 40 percent of the qualified vote to prevent an adoption of any restrictive policy. Should the US be successful in either winning such a vote or preventing adoption by persuasion, it would be possible to agree to further study on the implementation and impact of a two tier system at later Congress.

On February 2, 1995 the US State Department sent a “request for a demarche on WMO proposal restricting free and open access to Meteorological data to most embassies in member states of WMO. The demarche requested embassies to approach foreign ministries and if appropriate technical agencies to meteorological and other forms of environmental data and request the views of the host government on the proposal before the CMO Congress that would restrict access for certain commercial uses. It is unclear whether any replies to the demarche provided any new or unexpected information.

Another activity undertaken in developing the US position, was to look at existing practices where the US was involved in data exchange with non-US sources that involved restriction. Several activities were cited including the following: (1) ERS-1 Low Bit Rate Data - Europe, (2) ADEOS OCTs near real time – Japan, (3) Radarsat – Canada, (4) Weather Data in Germany – DOD bilateral, and (5) X-SAR, JERS, SPOT satellites – NASA bilateral agreements.

Besides the interaction with the Scientific Community by AMS and UCAR, a request was made by the State Department to the National Research Council’s Committee on Geophysical and Environmental Data (CGED) to report on how proposed restrictions on the exchange of environmental data could affect international collaboration in programs of high priority to the USA. The report of the CGED was available in early 1995 for use in the development of the US position for CG XII. The report focused on the massive need for global environmental data sets to solve many of the societal problems of the present and future decades. The report also assumed a very narrow set of options regarding how a two tier system would in fact work and quite expectedly came out in favor of a strong free and unrestricted regime for data exchange. Further it urged opposition to the proposal before the WMO Congress. Specifically, the report stated, “The pressing need to understand and monitor the environment has made it more important than ever for scientists to have increased access to relevant data, information and products. WMO draft resolution 11.4 (Cg-XII) would have the opposite effect, and would set a damaging precedent for other international agreements. It is thus incumbent on the United States to take all actions necessary to foster the principle of full and open exchange.”

Several Legal opinions on the use of copyright, trade secrets, intellectual property rights, ownership of information, catalogue and data base protection, and unfair competition were provided to WMO and the WGCOP. Most of these opinions and briefs will not be discussed here as it was decided not to pursue any of these approaches. The Europeans had on several occasions indicated that their data fell under copyright provisions; however, this position never was pushed. The US believed that observations of the environment were by their very nature could not fall under copyright. Nevertheless, it was decided, in developing the US position, to examine the copyright possibility. There was several legal opinions and advice given. The first opinion assumed that copyright could be used by the Europeans, but if totally asserted could result in the loss of tier 2. Furthermore if a copyright approach were accepted there would be a push for some kind of licensing arrangement by the NMS. It is assumed that the Europeans were not pursuing the copyright approach because (1) it

would have problems with respect to intra-European conflicts and as a practical matter, it would be difficult to enforce in many non-European countries particularly when a developing country was not a direct party to any infringement. In March of 1995, Julian Hunt did inform Jim Baker that the Europeans felt that copyright and property right legislation was an unworkable solution because many countries would shy away from any attempt to use legal means to protect themselves from any possible harmful effects from the re-exportation of Tier 2 data. Finally, it should be kept in mind that there is a prohibition against the US government asserting copyright as a matter of statute. While the US were not pursuing the copyright approach, they would later indicate that their information would fall under a *sui generis* provision with the rules of the European Commission. At the Bureau meeting in January 1995, there was a brief discussion on the use of copyright and Friday agreed to let Lebeau and the WGCOM if the US was to pursue or accept an approach involving copyright. The other major decision taken by the Bureau was to agree to have Lebeau convene a Sub-committee on "Future Arrangements for the Exchange of meteorological Data and Products" during the Congress.

During the first half of 1995, while discussions within the US on a position for the WMO proposal was being finalized, a second major discussion was underway on the data policy related to the International Joint Polar Satellite System involving the US and EUMETSAT. In these discussions several options were still under consideration, but nearly every option had some form of restriction of data. The most difficult point was related to "data denial" and who would have the final decision. Besides the all US built and launched satellites, a major component of the system was to be the early equator crossing satellite. The first several satellites in this class would be launched and built by EUMETSAT, but the majority of instruments would be provided by the USA. Going into the Cg-XII there was no agreement on the satellite issue.

As late as the end of March 1995, a little over a month from the start of Cg-XII, the US position was not agreed to within the interagency framework. At this point the major viewpoints were coming from NSF, OSTP and NOAA. While everyone was in favor of supporting the words related to free and unrestricted data exchange, the major problem came with respect to how to handle the proposed two tier practice. Would outright rejection of the practice spoil chances for the overall policy agreement on free and unrestricted? Would the US have to explain why it has accepted some restrictions on other agreements, but not WMO? Would the new practice really hurt developing countries, if so how? If no agreement is reached would the US have to negotiate bilateral agreements with many countries? How would the Europeans react to a proposal to do a more comprehensive study of the practice and its impacts? If the WMO proposal was made compliant with A-130, would other bilateral data policies have to be changed in order to be consistent? What are the cost implications associated with compliance of the two tier approach – Friday suggests it is minimal, but some of the NWS staff appear to disagree? Is it possible to have a practice that would allow for free and unrestricted exchange at cost of reproduction for everyone except the commercial sector and what the Congress and Executive branch agree to abandon the US private sector? The last question is probably a "no-brainer" but was considered in the discussions on the position.

On May 16th, 1995, the State Department sent a second Demarche seeking government support for the US position that had been approved by the NCST/CISET. The US position in that cable was to oppose the proposed resolution as presented. Further, the cable suggests that the commercialization/data exchange issue should be solved by "national legal and enforcement mechanisms." The demarche indicated that Baker had been "in contact with several of his counterparts in other countries to garner support for an alternate proposal for use of national mechanisms that could serve as a consensus position at the WMO Congress. " The cable also made clear that the US would support the first part of the resolution dealing with free and unrestricted exchange as well as the proposed guidelines in the third part of the resolution. The Europeans and others, including Zillman, viewed the US position as an act of desperation that could completely disrupt the Congress. Zillman from his Australian perspective clearly agreed with the US position, but from his role as the First VicePresident and candidate for President of WMO recognized that some compromise must be worked out quickly before the Congress. He asked Julian

Hunt, representing Europe, to work with the US in Geneva prior to Congress to seek some compromise words for the resolution that could be adopted unanimously.

The formal Decision Process

The third session of the WMO EC Working Group on Commercialization (WGCOM-III) was held from 31 October to 4 November 1994. This was to be the last substantial session of any WMO body before the Congress. In preparation for the session, WMO members were asked to comment on the content of Tier 1 (Mandatory component with no restriction). The replies to this request are quite interesting. Zillman and most of the Western Pacific and Indian ocean nations were suggesting that this tier should fulfill a “basic service” that would be in response to a developed set of basic requirements. This concept appeared to have a great deal of support, but was someone doomed by the time required to develop the requirements before Congress and the time to build a new consensus. Quite amazingly, the PR of Spain and vice chair of WGCOM, Bautista-Perez, indicate that, “we believe that to include six-hourly Regional Basic Synoptic Network in the mandatory component is excessive.” The PR of Japan, K. Ninomiya, suggested three hourly data should be included in Tier 1. It should be pointed out that even before the passage of any resolution most of the Europeans had already withdrew the three-hourly surface observations, which were an original part of the WWW. The PR of Netherlands Antilles, recognizing the new EUMETSAT policy, suggested that Tier 1 include Geostationary satellite High Resolution Imagery needed for severe weather warnings and tropical cyclone forecasts.

One of the interesting discussions that occurred during WGCOM-III was related to Legal issues associated with commercial meteorology. The discussion was based on a report submitted in response to a study commission by the SG. A Belgium firm undertook an examination of the legal and trade issues associated with the WMO proposal. The firm made several suggested changes in wording to the proposal that were adopted. The wording changes were made to assure the guidelines did not encourage antitrust in the form of (1) abuse of a dominant position, (2) allow for market sharing, and (3) prevent discriminatory pricing and conditions. These are the major issues raised by the private meteorological sector in opposing the ECOMET proposal. As of March, 2001, this issue has not been fully resolved by the European Commission, but partial decisions seem to favor the position of the ECOMET.

WGCOM-III made changes to the wording of the proposed resolution and added considerable guidance to the criteria to be used in the data and products to be included in Tier 1. They also recognized the shortage of time left before the Congress, and as a result agreed to a time table for actions leading up to the chair’s report to Cg-XII. The most significant milestone was to submit the report of the WGCOM to Members of WMO by early February, 1995, after an iteration of comment by the working group members.

On 5 December 1994 Lebeau sent to members of the WGCOM his proposed report to Congress on the results of the working group. Comments were requested by 15 January 1995. By in large most of the WG members felt generally comfortable with the report. Some of the specific exceptions, particularly by Zillman, are worth noting. During the entire 3 year tenure of the WGCOM Lebeau consistently tried to make the point that the WMO, “never voiced its commitment to the principle of free and unrestricted exchange of meteorological and related data and products nor acknowledged it as a fundamental requisite of the Organization.” On a number of occasions, Zillman pointed out that it is built solidly into the preambular sentence of Article 2 of the Convention; Congress in the Long Term Plan passed specific language to this effect and it was an explicit principle in the creation of the WWW. Zillman also objected by pointing out that any language that could lead to a debate and disruption would hurt chances for a unanimous agreement. In this respect, there was a feeling that some of the people involved in the early days of WMO would view some questioning and possible denigratory views of judgments made at earlier Congresses. Interestingly, while Zillman was in hopes of an unanimous agreement, he did not want that to be perceived as anything more than as a best compromise that might be tested in future and if fact rethought at a possible Extraordinary Congress in 1996 or 1997.

The tension of this issue reached one of its peaks during early January when Lebeau wrote a reply to Zillman, not as the chair of the WGCOP, but as the Director General of Météo France. At the start of the letter Lebeau stated, "We, as a Member, are conducting an in depth legal study of our commitment and we shall, or shall not, make use of the the corresponding results depending on whether a spirit of compromise will prevail not." *Should this have been considered a threat?* Lebeau conceded that the founding fathers of the WMO probably did have in mind free and unrestricted exchange of data and products in the establishment of WMO, but "they did not need to consider the compatibility of this principle with transnational commercial activities because such activities did not exist." The tone of the letter portrayed that Lebeau viewed any opposition of the two tiered approach was a position to force the rest of the world to do as the USA does and, "there will be no problem." Lebeau quite perceptively did point out in his reply that at this point, nothing can be achieved if not by unanimous decision, neither the status quo nor a new practice. Lebeau's letter set up the parameters on which a decision was going to be made at Congress. Lebeau felt as Chair of the WGCOP he had a moral obligation to get a decision of some change. He stated to Zillman, "I have invested a lot of time and effort in an attempt to identify a compromise which would protect the free exchange... However... I am not at all optimistic; a number of elements give me the impression that my efforts are not met by corresponding efforts of the opposite party. A significant element in making Lebeau feel this way, was the US statement at the RA I session in Gabarone. At this point the debate appeared to have moved into the personal arena. Lebeau felt by having a tier one, there could be a compromise and that Friday had in fact signed up to it with the blessing of the Associate Administrator of NOAA, Diana Josephson who Lebeau thought was a "political advisor". Lebeau in bringing up these US incidents, stated, "I refer to these examples, not because I resent this behaviour but because, in my opinion, they demonstrate that the US PR is not in a position to actually negotiate the issue of commercial activities versus free exchange. He is not in a position because the private companies lobby has a dominant political influence and is in a position to impose its policy line." Lebeau's final paragraph to Zillman further shows his frustration and desperation. "I must tell you that I think that there is something basically wrong in the way you assess the situation. When the free exchange was established, it was gladly accepted and never forced upon WMO Members. Now the situation has changed to the extent that some Members consider that certain aspects of the free exchange are detrimental to their basic interests. This is a new situation, which will put to the test the capability of WMO to impose upon its Members a practice which they no longer gladly accept. I personally feel that it would have been much better to avoid this test by amending the practice because, in my opinion, the test will show the weakness of WMO. Unfortunately, I do not think that the chances to reach a viable compromise are now very high."

Following WGCOP and the Bureau meeting, it appeared that the US would take a strong stance in opposition to the two tier approach. Friday and several moderate forces in Europe were looking for some form of compromise that would allow agreement. One possible provision that was gaining some acceptance was to provide some mechanism for getting agreement on the content of the tiers and then making it difficult to change. In a bilateral exchange between NOAA and the Science attaché at the British embassy in late February 1995, there was an understanding established that both USA and UK could support such a mechanism.