CGMS-XXIX WMO WP-5 Prepared by WMO Agenda item: IV.1 WG - IV

GLOBAL CONTINGENCY PLANNING

(Submitted by WMO)

Summary and purpose of document

The document contains a brief description of the background for CGMS Global Contingency Planning and a proposed outline for pre-session documentation for CGMS-XXIX.

ACTION PROPOSED

CGMS Members to note the background and prepare pre-session documentation, as appropriate, for discussion at CGMS-XXIX.

Appendix: Outline for Working Papers on Global Contingency Planning

DISCUSSION

- 1. On 6 July 2001, the Director-General of EUMETSAT, and the CGMS Secretariat, sent a facsimile to CGMS Senior Officials with regard to Contingency Planning. He noted the need for CGMS to "make every effort to work towards a robust global system complete with regional contingency plans, capable of providing maximum benefit even if individual satellite systems suffer diminished capabilities". The facsimile also requested WMO to act as the coordinator for presession documentation. The following paragraphs contain background information and a proposed outline for the preparation of pre-session materials to be discussed at CGMS-XXIX.
- 2. It should be recalled that the CGMS Consolidated Report contains the following information related to Global Contingency Plans.

Global Contingency Plans

In 1991, the forty-fourth Executive Council of WMO recommended the development of contingency plans by the satellite operators to increase the reliability of the space-based global observation system. WMO considered that space segment contingency planning was the core of the statement of WMO requirements for system continuity. It was anticipated that CGMS would continue its role of coordination and standardisation such that ground receiving equipment would be able to receive and process services from any contingency satellite provided by another operator, e.g. by using standardised down-link broadcasts and data formats. In 1992, the statement of WMO requirements for continuity was subsequently endorsed by the satellite operators, who subsequently established a CGMS Working Group on Global Contingency Planning.

However, at the first meeting of this Working Group in October 1992, CGMS concluded that no single satellite operator could be expected to guarantee satellite availability in all circumstances and that the establishment of joint contingency plans was essential in order to achieve a reliable global system at a realistic cost. A proposal for a contingency concept, which could meet global needs, was thus established. This concept was based upon a philosophy of assisting neighbouring satellite operators by using data transfer techniques similar to that already developed for the Europe-USA Extended Atlantic Data Coverage scheme mentioned above.

In 1994, the CGMS Working Group on Global Contingency Planning agreed a technical strategy based upon the "help your neighbour" concept. This strategy assumes that each satellite operator tries, with its best efforts, to maintain its nominal configuration, in accordance with its own constraints. Any CGMS satellite operator faced with a contingency situation, whereby priority satellite based services cannot be supported, should immediately discuss the situation with other satellite operators who, in good faith, should try to find a solution.

In 1997, CGMS considered that it would be beneficial for the user community to develop similar arrangements to cover unexpected contingencies affecting services provided by the satellite operators.

In 1998, Japan and China looked into possible contingency arrangements to support each other's services. The GMS and FY-2 satellite systems have a high level of compatibility with regard to area of the globe covered and transmission characteristics. However, it was decided that long-term contingency arrangements could only be considered if respective launch schedules allowed sufficient in-orbit redundancy. A constraint to the provision of a back-up of MTSAT or FY-2 was the incomplete overlap (70%) in the fields of view of GMS/MTSAT and FY-2.

Bearing this in mind, the Working Group on Global Contingency Planning considered that in the event of a major system failure, back-up in areas such as product generation might be an appropriate solution. As a consequence, the satellite operators are currently actively studying such possibilities for support to product generation using data from neighbouring satellite systems.

Additionally, in 1998, discussions were initiated between EUMETSAT and the Russian Federation with a view to investigating possibilities for the use of Meteosat-5 at 63°E to relay Russian Federation DCP messages and provide a temporary WEFAX image dissemination service in the region.

Also in 1998, India agreed to transmit to its higher authorities the need for regional contingency planning as stipulated in the CGMS Contingency Strategy. To this end, EUMETSAT has concluded an Agreement with ISRO for the possible relay of some INSAT imagery and products via the Meteosat system. In return, India will have access to imagery provided by Meteosat-5 located at 63°E.

3. In following the CGMS agreed philosophy to "help your neighbour", there are six CGMS geostationary satellite operators and thus at least six pairs of possible contingency plans:

CGMS satellite operator Neighbour

NOAA/NESDIS EUMETSAT

NOAA/NESDIS JMA

EUMETSAT NOAA/NESDIS

EUMETSAT Russian Federation (76° East)

Russian Federation EUMETSAT Russian Federation India (82° East)

India Russian Federation

India China

China India China JMA

JMA China

JMA NOAA/NESDIS

- 4. Of the six possible contingency plans, only one is in effect. This paper serves to start a dialogue seeking to progress further the discussions for the remaining five contingency plans. As a basis for such a start, the existing contingency plan (NOAA/NESDIS and EUMETSAT) provides an outline of important topics that should be part of a contingency plan.
- 5. Thus, it is suggested that each CGMS satellite operator prepare a brief description of its portion of a contingency plan. At CGMS-XXIX, the CGMS Working Group on Contingency Planning will use the descriptions as a basis for discussion on how further contingency plans could be developed.

OUTLINE FOR WORKING PAPERS ON GLOBAL CONTINGENCY PLANNING

Baseline System

A description of your baseline system. Your baseline system would be the basis for any contingency plan.

General Provisions and Definitions

A description of the provisions and definitions that would be acceptable to your organization.

Responsibilities

A description of the responsibilities your organization would be willing to accept. A description of the products you consider vital that would need to be provided when a contingency plan would be in effect.

Management and Coordination

A description of management and coordination arrangements for your organization.

Information Transfer and Release

A description of how your organization would provide technical information to another agency.

Data Policy

A description of your organization's data policy and what data policy your organization would like when a contingency plan would be in effect.

Taxes and Customs

A description of your organization's commitment to handle taxes and customs when a contingency plan would be in effect.