

**REQUIREMENTS FOR FUTURE USE OF THE INTERNATIONAL  
DATA COLLECTION SYSTEM (IDCS) AND POSSIBLE  
RECONFIGURATION OF THE IDCS**

This document refers to the action 26.32 of CGMS XXVI. The proposal for the IDCS expansion is reiterated and a tentative transition plan is proposed.

CGMS is invited to endorse the proposed plan and to implement the changes to their current use of the designated expansion channels as required.

# REQUIREMENTS FOR FUTURE USE OF THE INTERNATIONAL DATA COLLECTION SYSTEM (IDCS) AND POSSIBLE RECONFIGURATION OF THE IDCS

## EXPANSION OF THE IDCS

### 1 INTRODUCTION

The documents CGMS-XXIV EUM-WP-18 and CGMS-XXVI EUM-WP-07 presented the planned usage of the MSG DCP transponder indicating an expansion of the IDCS from 33 to 40 channels. The CGMS action 26.32 requested the CGMS members to analyse requirements for future use of the IDCS in the next 10–15 years and to consider the possible reconfiguration of the IDCS to narrower bandwidth channels.

The following section represents the EUMETSAT proposal for expansion of the IDCS and includes a corresponding transition plan.

### 2 IDCS / REGIONAL DCS FREQUENCY ALLOCATIONS

#### 2.1 Current Allocations

Table 1 shows the current allocations of the International/Regional DCS frequency bands.

DCS uplink bands	frequency	channel allocation
lower regional DCS band	below 402.0 MHz	FY-2 GOES-E, GOES-W ELEKTRO (GOMS)
IDCS band	402.0 - 402.1 MHz	33 channels (3 kHz bandwidth)
upper regional DCS band	above 402.1 MHz	METEOSAT/MSG GMS/MTSAT

**Table 1** Current regional DCS and IDCS frequency allocations

#### 2.2 Proposed revised IDCS Allocation

The proposed IDCS expansion envisages a use of seven additional channels above the currently allocated IDCS frequency band. Only frequencies of the upper regional DCS band will be affected by this change. To free the required 21 kHz of bandwidth, the regional DCPs between 402.100 and 402.121 MHz will need to be moved to higher frequency channels.

Table 2 details the required frequency band changes.

DCS uplink bands	frequency	channel allocation
lower regional DCS band	below 402.0 MHz	FY-2 GOES-E, GOES-W Elektro (GOMS)
IDCS band	402.0 - 402.121 MHz	33 40 channels á 3 kHz
upper regional DCS band	above 402.121 MHz	Meteosat/MSG GMS/MTSAT

**Table 2** Frequency allocations after IDCS band expansion

A more detailed frequency list of the ‘expanded’ IDCS band is put together in Table 3.

channel number	centre frequency [MHz]
existing IDCS channel assignments:	
I 1	402.0025
I 2	402.0055
I 3	402.0085
...	...
I 31	402.0925
I 32	402.0955
I 33	402.0985
new IDCS channel assignment:	
I 34	402.1015
I 35	402.1045
I 36	402.1075
I 37	402.1105
I 38	402.1135
I 39	402.1165
I 40	402.1195

**Table 3** Frequency allocations after IDCS band expansion

### 3 TRANSITION PLAN

The relocation of regional DCPs will need to be completed before international DCPs can be assigned to the new IDCS channels from I 34 to I 40.

To provide the satellite operators with sufficient time for this it is proposed that regional DCP relocation shall be completed until the end of the year 2001. Allocations of international DCPs shall not be performed earlier than 1 January 2002.

#### **4 IDCS BANDWIDTH**

Since the start of IDCS operations the bandwidth used for IDCS channels was 3 kHz. This was identical to all other channels. Due to the expansion of DCP systems it was necessary to reduce the bandwidth of DCP transmissions to 1.5 kHz and consequently double the amount of channels. Regional DCP channels of 1.5 kHz bandwidth are now introduced by several DCP operators. The IDCS is still based on 3 kHz channels to allow operations by all CGMS members. During CGMS XXVI it was discussed that it would be desirable to convert the IDCS in the long term into a system using 1.5 kHz per channel. Members were asked to investigate technical feasibility of such a reconfiguration.

EUMETSAT introduces 1.5 kHz DCPs within the MSG programme. Channels with this bandwidth could also be used for IDCS. Should IDCS requirements ask for strong expansion it would be possible to introduce new 1.5 kHz bandwidth channels at short notice.

#### **5 CONCLUSIONS**

The proposal of the IDCS expansion is recalled by this document. A transition plan to relocate DCPs operating on current frequencies of the upper regional DCS band to free the required bandwidth for the additional seven IDCS channels is proposed.

The CGMS members are requested to endorse the above proposal and implement the required DCP reallocations in accordance with the tentative transition plan.