

ATNP/WG-2 ad-hoc

WP2/69

20 January 1995

**AERONAUTICAL TELECOMMUNICATIONS NETWORK PANEL**  
**ad-hoc WORKING GROUP 2**

Melbourne, 23-27 January 1995

**Status Report on Progress of Actions**

Information Paper

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**SUMMARY**

This information paper provides a summary of the status on the various action items defined at the ATNP/WG-2 meeting in San Diego which involve Germany.

## 1. Background

At the previous meeting of WG-2, a number of action items had been identified and allocated to volunteering participants. The following list summarizes the actions in which Germany is involved, either by leading, or by contributing to progress.

Action No.	Action	due date
WG2-12	develop GM on addressing and create DRs and Draft CPs, if appropriate	2/95
WG2-14	review existing QoS material and amend where necessary by DRs and Draft CPs	2/95
WG2-21	convert WP2-46 to defect reports and produce associated change proposals	12/94
WG2-4	contribute to network oper. concept	12/94
WG2-8	contribute to the review of ATN user requirements	12/94
WG2-13	review operational requirements with respect to addressing	2/95

## 2. Current Status

The current status may be summarized as follows:

- WG2-12 (GM on addressing)

An updated version of the technical report on ATN Addressing had been finalized by ESG at the end of '94. Based on this, both, DRs and CPs, as well as draft guidance material will be developed in time for the march meeting of WG-2 including previous distribution and discussion amongst the ATNP attendees.

Note: in contrast to the minutes of an Eurocontrol meeting (STA-6), a delivery date had not been stated by ESG)

**Action: Ongoing (on time)**

- WG2-14 (QoS material)

A technical report on ATN QoS management had been finalized by ESG at the end of '94. Based on this, both, DRs and CPs will be developed in time for the march meeting of WG-2 including previous distribution and discussion amongst the ATNP attendees and on the atn-internet-technical list.

**Action: Ongoing (on time)**

- WG2-21 (DRs from WP2-46)

Due to the late availability of the VRCI forms, this action item could not be started before the planned due date. Two defect reports had been submitted in time before the recent CCB meeting on 16-20 January and had been accepted during this meeting. Corresponding change proposals will be developed and submitted before the end of January '95.

**Action: Ongoing**

- WG2-4 (NOC)

For this deliverable, Germany has the function of providing a contribution only. Currently, input from Eurocontrol is awaited.

**Action: Ongoing**

- WG2-8 (Review of User Requirements)

Also for this deliverable, Germany has the function of providing a contribution only and awaits input from Eurocontrol.

**Action: Ongoing**

- WG2-13 (Operation requirements with respect to addressing)

Also for this deliverable, Germany has the function of providing a contribution. At the last Eurocontrol STA-6 meeting dealing with (inter alia) this deliverable, it was agreed that DFS reviews and finalizes the list of requirements presented in WG2-WP42 and forwards this list to Eurocontrol. The list of these requirements has been finalized immediately before the recent CCB meeting and is provided as Annex to this paper.

**Action: Ongoing (on time)**

## **Operational Requirements**

The addressing concept for the ATN must be able to satisfy the operational requirements of its users. The following set of operational requirements which may impact the ATN addressing concept has been identified:

### **1. Aircraft movement / sector transmission**

The air-ground data communication shall be maintained and the NSAP addresses shall not change in spite of the fact that the location of an airborne system (and the associated application processes) continuously changes during flight with respect to the ground system.

This dynamic network behaviour shall be handled transparent to the user by the ATN through the most efficient features with respect to e.g. timeliness, network loading, etc.

### **2. Flexible sectorisation in ATC centres and across ATC centres**

ATC operation demands a variable and flexible ATC sectorisation. This means that adjacent control sectors may be merged together temporarily, or control sectors may be temporarily split into separate control areas based on the actual traffic flow and ATC system capacity. This implies that a ground based application process may be temporarily switched from one ES to another or even from one network to another. These networks can either be a local area network (if e.g. sectors within one centre are concerned) or even wide area networks (if the function of one application, e.g. WX, is taken over by another system located in a different region).

### **3. Fault-tolerant ATC systems operation**

Future ATM scenarios assume a highly reliable ATC system architecture which will rely on computer and electronic data exchange. The communication system must be able to support duplicated ES configurations operating in a hot standby mode and communication across duplicated media.

### **4. Replacement of equipment**

Spare systems replacing operational ground equipment shall not be required to be individually configured in order to take over the role and function of the replaced system. This means that communications with remote peer systems should be continued although the replacement system may have different addresses than the replaced system.

### **6. Transparency**

A demand particularly from airline operator's point of view is that (re)configuration of equipment and processes onboard of aircraft shall be transparent to the remaining ATC system.

### **7. Knowledge of Ground environment**

Again, from the position of an airline operator, a requirement exists that for ATC communications from air to ground only a fixed, limited set of ground systems should be the addressee of the communications within a given regional area, i.e. not the complete ground environment has to be known to the aircraft systems.