



**International Civil Aviation Organization
Western and Central Africa Office
Twelfth Meeting of the FANSI/A Interoperability Team (FIT/12)**

Paris, France (5 - 6 June 2017)

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**Agenda Item 4: System performance monitoring and maintenance c:
Problem identification, reporting and resolution procedures**

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CPDLC free text messages proposed as pre-formatted messages, in the SAT region

(Presented by ASECNA SENEGAL)

SUMMARY

The use of “free text” messages in CPDLC links between Air Traffic Controllers and pilots is, in many reported cases submitted to errors that can lead to misunderstanding. As mitigation it is recommended to use “free text”, only in absolute necessity where pre-formatted messages do not exist. The aim of this presentation is :

- To propose a set of harmonized CPDLC free text messages for their transformation as preformatted messages for our different system.
- To reduce to its minimum, the usage of CPDLC free text messages in the SAT region.

1. Introduction

The analysis of the current situation states that there is great number of CPDLC free text messages, different from those allowed by the GOLD document, being used mainly by air traffic controllers and pilots. The most common circumstances that encourage their usage are:

- Relays
- Alternative requests
- Traffic information

This is due to:

- The absence of pre-formatted messages for the controller to be used in some particular situations such as those listed above or
- The important number of pre-formatted messages per section making it difficult for the controller to find easily the required pre-formatted message.

2. Discussion

Taking into account these facts we recommend:

- To reduce the number of pre-formatted messages per section by not repeating same messages in multiple sections, in order to make its access easier;
- To prioritize the access of the frequently used pre-formatted messages (table below) in sections;
- To introduce free text messages (table below) related to circumstances listed in the introduction by amending GOLD Document accordingly.

PRE-FORMATED CPDLC MESSAGES FREQUENTLY USED IN DAKAR CENTER

Message number	Message text
	<i>VERTICAL CLEARANCES</i>
7	EXPECT CLIMB AT [time]
8	EXPECT CLIMB AT [position]
9	EXPECT DESCENT AT [time]
10	EXPECT DESCENT AT [position]
20	CLIMB TO [level]
23	DESCENT TO [level]
	<i>LATERAL OFFSETS</i>
72	RESUME OWN NAVIGATION
	<i>ROUTES MODIFICATIONS</i>
74	PROCEED DIRECT TO [position]
82	CLEAR TO DEVIATE UP TO [distance offset] [direction of] OF ROUTE
	<i>SPEED CHANGES</i>
106	MAINTAIN [speed]
111	INCREASE SPEED to [speed]
113	REDUCE SPEED TO [speed]
	<i>SURVEILLANCE MONITOR/CONTACT REQUESTS</i>
117	CONTACT [unit name][frequency]
118	AT [position] CONTACT [unit name][frequency]
120	MONITOR [unit name][frequency]
121	AT [position] MONITOR [unit name][frequency]
123	SQUAWK [code]
	<i>REPORT/CONFIRMATION REQUESTS</i>
127	REPORT BACK ON ROUTE
134	REPORT SPEED
	<i>SYSTEM MANAGEMENT MESSAGES</i>
161	END SERVICE
	<i>ADDITIONAL MESSAGES</i>
168	DISREGARD

FREE TEXT CPDLC MESSAGES FREQUENTLY USED IN DAKAR CENTER PROPOSED TO BE INCLUDED IN THE GOLD DOCUMENT.

Message number	Message text
“169”	REQUEST RELAY TO [call sign] TO REPORT ESTIMATE [position]
“169”	REQUEST RELAY TO [call sign] TO CONTACT [unit name] ON HF FREQUENCY.....
“169”	ARE YOU ABLE [level]
“169”	UNABLE DUE TO TRAFFIC
“169”	UNABLE DUE ROUTING ALTERNATIVE [level] ADVISE
“169”	CAN YOU ACCEPT [speed]
“169”	REPORT ESTIMATE [position]
“169”	TRAFFIC IS [type] [direction] [level]

3. Action by the meeting

The meeting is invited to adopt this set of “free text” messages frequently used and include them as standardized free text messages, so as to mitigate the risk of misinterpretation of uplink or downlink messages.

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