WORLD METEOROLOGICAL ORGANIZATION

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**COMMISSION FOR BASIC SYSTEMS** OPEN PROGRAMME AREA GROUP ON INTEGRATED OBSERVING SYSTEMS 05/09/2013

#### EXPERT TEAM ON AIRCRAFT-BASED OBSERVING SYSTEMS

FIRST SESSION

ITEM: 5.2.2

Original: ENGLISH

Geneva, Switzerland, 10-13 September, 2013

# Science & Technical Developments

B777 Software Development (Submitted by Steve Stringer, E-AMDAR Programme Manager)

# SUMMARY AND PURPOSE OF DOCUMENT

The Report provides an update on progress on development of software for Boeing 777.

# **ACTION PROPOSED**

The Session is invited to review and discuss the content of the document.

# **UPDATE REPORT**

#### **Development for Boeing 777**

#### History:

- Initial approach was made (by E-AMDAR, M-F and WMO Panel) to Air France/KLM for the development of an AMDAR software package for implementation into their B777 fleets. The specification for that software package was agreed and would be based on the AAAv3 software specification.Initial indication from Air France was a cost of 50k€ for the development.
- 2. The AF/KLM formal quotation was received 19 Dec 2012 and comprised the following charges:
  - Software dev: 47K€
  - ➢ AFR Specific Study: 7K€
  - > 0.5K€ per implemented aircraft (2 options: 64 or 32 aircraft)
- 3. Letter of response sent to KLM/MF offer in Feb 2013 requesting clarification on:
  - What the specific study was for;
  - Why implementation costs per aircraft were so high and if they could be separated from the Software development;
  - Ownership and licensing issues;
  - Date of agreement to proceed can it be pushed back and split into dev. & implementation?
- 4. Response received 13 March 2013:
  - Study is an avionics integration activity necessary to implement and test the ACMS application.
  - Cost per aircraft retained.
  - KLM to "own" software.
  - Can split development and implementation.
- 5. Email sent to AF/KLM (27 March) stating that partners cannot proceed without at least joint ownership by WMO and partners with reply on 16th May 2013, "sharing ownership is difficult " !!

#### Latest Proposal :

- 6. A revised proposal was presented by AF at an E-AMDAR Programme management meeting 5th July (KLM did not attend). The main points are :
  - > KLM cannot share the software so KLM transfers the development to Air France
  - > AF Software licence agreement:
    - granted to WMO and partners
    - freeware licence for a limited period (but a long time)
    - software can be freely provided by WMO and partners to Airlines (on a non profit basis)
    - non-exclusive licence
    - the licence is revocable
    - AF/KL is not responsible for the software usage

- WMO and its partners must accept that the use of the software remains at their own risk
- AF/KL provides to WMO/AMDAR the executable code of the software but not the source code
- AF/KL ensures the free maintenance of the software
- AF/KL commits to answer to further developments at commercial conditions to be negotiated on a case by case basis
- 7. Email raising concern at not having access to the source code sent to AF on 14<sup>th</sup> Aug
- 8. AF were to submit their offer in writing but to date this has not been received.

*."...will be giving a full answer including this point as soon as our internal contacts are all back from leave." AF, 21<sup>st</sup> Aug'13*