Attachment A

AFI Region Seminar/ Workshop on WGS-84 Implementation to Support GNSS and PBN aeronautical operations (Dakar, Senegal, 27-29 November 2013)

(DRAFT AGENDA)

Agenda Item 1. WGS-84 Implementation background

a) FANS/4 Recommendation 3.2/1 Adoption of WGS-84

b) February 1994, ICAO Council adoption of Amendment 35 to Annex 11 *(Air Traffic Services)* and Amendment 28 to Annex 15 *(Aeronautical Information Services)* which mandated the use of WGS-84 as the common geodetic reference system for civil aviation within an applicability from 1 January 1998.

c) March 1997, ICAO Council adoption of Amendment 29 to Annex 15 *(Aeronautical Information Services)* which mandated the use of the vertical component of WGS-84 with selective applicability from 5 November 1998.

Agenda Item 2. Basic elements of WGS-84 in direct support to the effective implementation of GNSS

a) What is WGS-84

b) Why there is a need for a Global common reference system

c) Geodetic Datum and Transformation

d) Standard surveying of Navigation Facilities *(Mandatory requirements and Recommendations)*

e) Quality assurance in WGS-84 implementation

f) Surveying methods : Satellite technique; conventional techniques ; photogrametry.

Agenda Item 3. Status of WGS-84 Implementation

a) Review of the current Status of WGS-84 implementation in the AFI Region

b) Review of the current status of WGS-84 implementation at a Global level as compiled by Industry.

c) State by State presentation of survey inventory related to WGS-84 implementation.

Agenda Item 4. Understanding Coordinates and Coordinate conversions.

a) Geometric aspects of mapping through coordinate transformations

b) Use of on-line downloadable software for local/national coordinate transformation and/ or conversion of the geographic data from a local geodetic reference , to the WGS-84 geodetic reference system

c) Use of on-line downloadable software for determination of geoid data and its relationship with vertical data of the WGS-84 ellipsoid heights.

Agenda Item 5. On-line use of the National Geospatial Agency's (NGA) GEOTRAN version 3.2

a) (Geographic Translator) which allows the easy conversion of geographic coordinates among a wide variety of coordinate systems.

b) On-line use of the NGA's WGS-84 Geoid calculator program to convert orthometric heights (approximately mean sea level) and ellipsoid heights.

c) Maintenance *(use of databases)*

Agenda Item 6. On-line use of the Geographic Calculator (GEOCALC) Conversion toolkit

a) Use of Cartesian coordinates (XYZ) which allows for geodetic quality three dimensional positioning on an earth centered ellipsoid.

b) Methods of converting between geodetic latitude-longitude-Ellipsoid height.

Agenda Item 7. Introduction to a new AFI Region Project Management Initiative to enable a complete WGS-84 Implementation within the AFI Continental and Oceanic airspace

The African Geodetic Reference Frame (AFREF) *An African initiative to unify the geodetic reference frames of Africa based on ITFR through a network of GNSS based stations at a spacing such that users will be at most within 1000 km of a based station.*

Agenda Item 8. Any Other Business.