ICAO – Annex 14 Volume II – Heliports Standards and Recommended Practices Workshop

Location: Bangkok, Thailand Date: 18 – 22 April 2016 Language: English

ICAO Annex 14, Volume II to the 1944 Chicago Convention contains the Standards and Recommended Practices (specifications) that define the physical and operational characteristics which have to be provided at heliports.

Participating in this course enables the attendants to construe and implement the Annex 14 specifications related to surface-level heliports and elevated heliports. Based on best practices, the participant will gain knowledge on how to configure, dimension and design the fundamental infrastructure elements of these types of heliports. Thus, they will learn how to fulfil ICAO requirements.

This practical review will include the *description*; *applicability* - weather it is a standard or recommendation, looking at the "when" and "why"; the *physical characteristics*; guidance material (Heliport Manual – ICAO Doc 9261) where available; and alternate means of compliance where applicable. Explanations will include many diagrams and actual heliport photographs to help demonstrate means of compliance.

Day 1

- Introductions
- Overview of Annex 14 Volume II; Heliport Manual (Doc 9261); and relationship to Annex 14 Volume I
- Definitions, terminology, helicopter characteristics (dimensions)
- **Applicability, Certification & Safety Management** (Annex 19)
    - Difference between applicability and certification
    - Establishing a certification program
- Heliport Data – Annex 15 – Aeronautical Information Services, Appendix 1, part 3 Aerodromes (AD)
    - Declared Distances
- Surface-level versus Elevated (rooftop) heliports – Advantages & disadvantages
- Relevant helicopter performance parameters (performance classes 1, 2 and 3)

- **Annex 14, Volume II - Chapter 3 – Physical Characteristics**

    - **Surface-level Heliports**
        - Final approach and take-off area (FATO)
        - Touchdown and lift-off area (TLOF)
        - Safety Area
        - Ground & Air Taxiways & taxi-routes, clearways, aprons and stands (parking)

    - **Elevated Heliports**
        - FATO
        - TLOF
        - Safety Area
        - Taxiways & taxi routes

Day 2 (con't chapter 3 – Physical Characteristics if not completed)

- **Chapter 4 – Obstacle Environment**

    - Approach surface – description, dimensions
    - Transitional surface – description, dimensions
    - Take-off climb surface – description, dimensions
    - Curved approach & take-off surfaces – description & dimensions
    - One approach / take-off climb surface, versus more than one,– Standard / Recommendation
    - How slopes relate to performance class operations (Annex 6, Part 3 – Helicopter operations)

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Day 3

- **Chapter 5 – Visual Aids**
    - Wind direction indicators
    - **Markings & markers**
        - Heliport identification marking
        - Maximum allowable mass marking, D-value marking, FATO dimension markings
        - FATO perimeter markings or markers (surface-level heliport)
        - Aiming point markings
        - TLOF perimeter markings
        - Touchdown/positioning marking
        - Ground taxiway markings
        - Air taxiway markings
        - Helicopter stand (parking) markings
    - **Lights (Night-time operations)**
        - Heliport Beacon
        - Approach lighting system
        - Alignment Guidance systems
        - Approach slope indicators
        - FATO lighting systems (surface-level heliport)
        - Aiming point lights
        - TLOF lighting system

Day 4 (con't chapter 5 – Visual Aids if not completed)

- **Chapter 6 – Heliport Services (Heliport Emergency Response)**
    - Heliport Emergency Response Plan (Not yet published)
    - Rescue and fire fighting
        - Level of Protection
        - Extinguishing agents – surface-level & elevated
        - Rescue arrangements, Response times, Communications, Personnel
        - Means of escape
- **Questions & any outstanding issues**

Day 5 (Optional)

- **Offshore facilities (Helidecks)**
    - FATO & TLOF dimensions, load bearing (chapter 3)
    - Obstacle Free Sector (chapter 4), Obstacle Limitation Sectors (chapter 4)
    - Helideck markings & Helideck lights (chapter 5)
    - Rescue & Fire fighting – Level of protection, Response time
    - Fixed Foam Application Systems – Monitors, DIFFS & Ring-main systems
- **Instrument Heliports** (Appendix 2, Annex 14 Volume II)
    - Physical characteristics, Obstacle Environment, Visual Aids
    - Precision & Non-precision approaches
- **Point-in-space** (PinS) GNSS helicopter approaches to visual heliports (PANSOPS & Annex 14 Volume II)