Aeronautical Data Quality – A New Challenge for Surveyors

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SUMMARY

The International Civil Aviation Organisation (ICAO) introduced some years ago their standards and recommended practices which related also to digital terrain and obstacle data. To achieve compliance to these standards the states had to introduce new work flows for the data capturing and the storage of these data. Eurocontrol which represents the Member States of the European Organisation for the Safety of Air Navigation took over the responsibility to introduce these standards and implement them for the European airspace. These standards covering an enormous range of stakeholders from those who plan a project to those who are responsible for the data capturing, i.e. from the planer to the surveyors and the data base. The data related to these standards will have in the future the same importance for the air traffic as car navigation systems for the roads but with much higher safety requirements. The legal frame is given in the European Regulation 73/2010 where the Aeronautical Data Quality (ADQ) is defined, also the special data format AIXM (Aeronautical Information Exchange Model) which will guarantee a loss free transformation of all spatial and non-spatial data including the meta information. The aeronautical data chain contents the integrated aeronautical data package (NOTAM), digital obstacle data, digital terrain data and airport terrain data. In all data the surveyor is involved and has to deliver the information complaint to the standards. The paper will describe the challenges for different data capturing methods to achieve the compliance with the ADQ standards and data formats. Till now no surveying work flow for geographical data capturing is fulfilling it. It will influence the suppliers of surveying systems, the service providers, the GIS applications and the data base structures.

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