

HEMS Weather Summit



Federal Aviation
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FAA Flight Standards: Weather in the Cockpit Guidance and Policy

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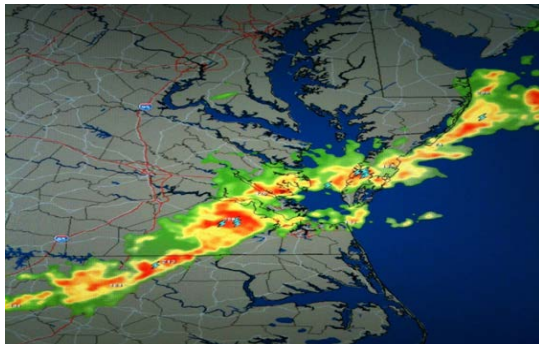
Date: December 18, 2013



New Policy Documents (Draft)

AC 00-63A – Use of Cockpit Displays of Digital Weather and Operational Information

***FSIMS 8900.1 Volume 3 Chapter 26
Section 5 – Use of Flight Information Services on the Flight Deck – Parts 91K, 121, and 135***



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Basis for Activity

- *FAA guidance is minimal/outdated*
- *Portable tablet devices are accelerating usage*
- *Support early implementation of MET & AI data link services, including SWIM connectivity, in support of NextGen and SESAR objectives*
- *Provide interim policy and guidance for AI & MET data link use until global standards enacted*
- *Provide detailed information on FAA FIS-B*



Highlights of Guidance

General

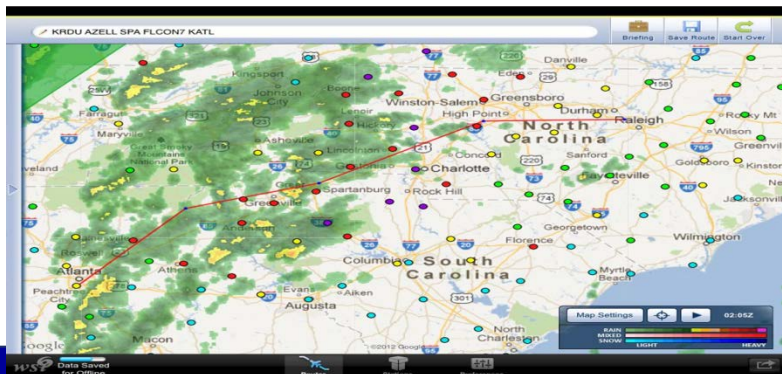
- **Data Link Service Providers (DLSP)**
- **Data Link Modes**
 - **Broadcast (e.g., WSI Inflight)**
 - **Contract/Demand (e.g., WSI Optima for IPAD)**
 - **Contract/Update (future version of WSI Optima?)**
- **MET Data Link Services**
 - **Data Link Weather Planning Decision Service (lead time to decision is 20 minutes or greater) – Strategic/Planning**
 - **Data Link Weather Near-Term Decision Service (3-20 minutes) – Strategic/limited tactical**
 - **Data Link Weather Immediate Decision Service (immediate to less than 3 minutes) – Tactical**



Highlights of Guidance

Pilot Actions – Pilot must understand the service provided and system particularities and limitations

- *Latency*
- *Update cycles*
- *Indication of system failure*
- *Coverage areas/service volumes*
- *Content/format*
- *Data integrity*
- *Use of equipment/avionics display*
- *Overload of information*



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Highlights of Guidance

Use of AI and MET by Certificate Holders and Program Managers (91K, 121, 135)

- ***Broadcast FIS***

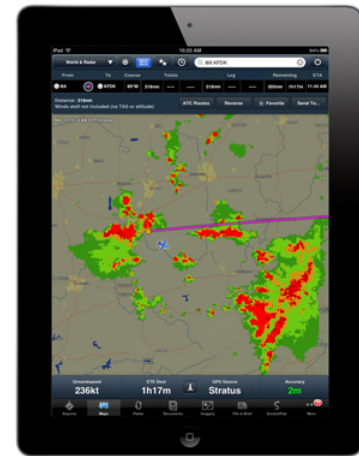
- ***Most broadcast FIS provided by commercial weather information providers (reformatted NWS information)***
- ***May be displayed on certified avionics or a portable device***
- ***Supports strategic decision making***
- ***Do not use as sole source of weather for making tactical in-flight decisions***



Highlights of Guidance

Use of AI and MET by Certificate Holders and Program Managers (91K, 121, 135)

- ***Contract/Demand via Internet Based Connectivity***
 - ***Records and Reports – applicable to CFR § 121***
 - ***Security – Network security plan should exist for ensuring data confidentiality, integrity, and availability for cockpit access to the aircraft system***
 - ***Restrictions on Use – Policies and procedures that restrict flight crew use of non-pertinent information accessed via the internet during all aircraft movement operations***



Highlights of Guidance

Use of AI and MET by Certificate Holders and Program Managers (91K, 121, 135)

- ***An electronic flight bag (EFB) is an acceptable means to view MET and AI information in the cockpit***
 - ***requires an Authorization for Use via FAA OpSpec A061***
- ***Dispatch/Weather Brief Documents***
- ***Digital/Electronic Dispatch***



Highlights of Guidance

Use of AI and MET by Certificate Holders and Program Managers (91K, 121, 135)

- ***SMS – risk severity of no worse than a Minor***
- ***Manuals – describe data link FIS equipment, procedures, and operational policies***
- ***Crew Resource Management – address effective teamwork to using FIS information while in the cockpit***
- ***MMEL/MEL – FIS MET MAY NOT mitigate MMEL/MEL restrictions related to the aircraft's onboard weather radar***
- ***Issues Unique to a Particular Operator***
 - ***Particular regional international operations***
 - ***Oceanic operations***
 - ***Polar/Remote operations***



Highlights of Guidance

Use of AI and MET by Certificate Holders and Program Managers (91K, 121, 135)

- *Training Requirements*

- *Textual description of available MET and AI products*
- *Graphical example of available graphic MET and AI products*
- *Description of time stamping, color and symbology schemes*
- *Limitations in specific products (e.g., NEXRAD latency)*
- *Differences between flight planning MET and AI products and in-cockpit MET and AI products (if applicable)*
- *Restrictions to using non approved MET and AI products*



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