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Challenges for Flight Instructors Teaching Weather Information

Robert Thomas

Embry-Riddle Aeronautical University, thomasr7@erau.edu

Thomas A. Guinn

Embry-Riddle Aeronautical University, guinnt@erau.edu

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CHALLENGES FOR FLIGHT INSTRUCTORS TEACHING WEATHER INFORMATION

Presented by

Robert Thomas, Ph.D., ATP, CFI

&

Thomas Guinn, Ph.D.

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Overview

- Flight Instructors face a challenge when teaching/learning weather information
- Multiple overlapping resources for aviation weather
- AC takes longer timeframe to update – problem for quick updates of information

Current Weather Guidance

- Spread Over Multiple Advisory Circulars and Handbooks
- Difficult to track content for consistency

- AC 00-06B Aviation Weather
- AC 00-24B Thunderstorms
- AC 00-30C Clear Air Turbulence Avoidance
- AC 00-45H Aviation Weather Services
- AC 00-54 Pilot Windshear Guide
- AC 00-57 Hazardous Mountain Winds
- AC 00-63A Use of Cockpit Displays of Wx and Aero. Info.
- AC 91-74B Pilot Guide: Flight In Icing Conditions
- FAA-H 8083-25B Pilot Handbook of Aeronautical Knowledge
- FAR/AIM Fed. Avn. Regs / Aeronautical Info. Manual
- And More....

Current documents have a limited focus on product interpretation

- Turns the Flight Instructor into a chef
- FAA provides the ingredients (all the ACs)
- But the instructor has to find all the ingredients and cook the meal
- Leave a chance of the flight instructor not finding all information and...
- Very limited examples of practical application of weather information
- Required the Instructor to come up with scenarios and examples – if they know how



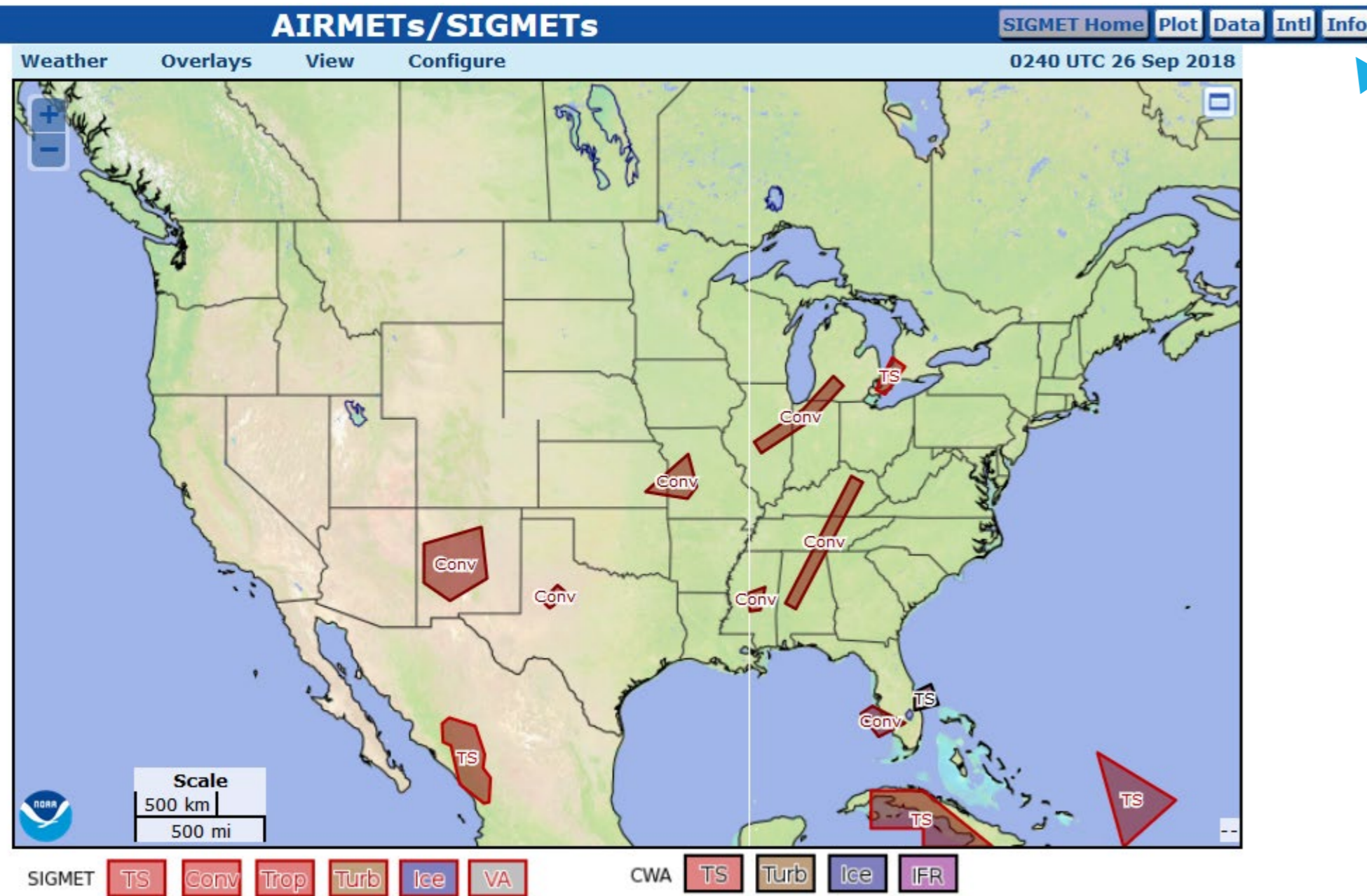
Recommendations and Suggestions

- Create an “Aviation Weather Handbook”
 - We would LOVE to do this for the FAA!
- Consolidate all weather phenomenology
- Handbooks tends to carry more “weight” with pilot community than Acs
- Handbooks can be updated quicker than ACs
- Reduces overlap and potential for conflicting information

Recommendations and Suggestions

- Develop publications with examples that can show pilots how to use these products
 - VFR and IFR
 - Geographic Differences
 - Provide instructors with support for Weather Training - instructional support tools
- Continue to develop new FAA knowledge test questions
 - Leverage universities like ERAU to validate questions to get them to the knowledge test database quicker
- Additional research (e.g., criterion validity studies associating the weather knowledge with performance in flight simulations).

Suggestions and Recommendations – Aviation Weather Center Products



Disclaimer: International SIGMET locations approximated. Please refer to SIGMET text for full details

- Already has great information on products
- Hidden behind tiny INFO button
- Perhaps make button bigger
- Different label -“AIRMET HELP” or “What’s an AIRMET?”

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Conclusion

- The 27th annual Nall Report states the percent of pilot-related weather accidents remained constant
 - Primarily VFR into IMC
- Merging ACs into one Aviation Weather Handbook will make it easier for pilots and instructors to find the information they need
- Providing examples will help instructors better prepare students

Questions?

