

SMS at the University of North Dakota

Paul Snyder



UND's System

- Part 141 Pilot School (125,000+ flight hours)
 - 115 Aircraft
 - 8 Rotorcraft
 - 23 Simulation Type Devices
 - 11 UAS
- UAS Degree Program – Includes flight component
- Part 145 Maintenance Repair
- UAS FAA Designated Test Site
- Additional Locations - UNDAF
 - Phoenix, Az
 - Crookston, Mn



Making it work

Don't lose site of these principles:

- Practical
- Usable, and
- Scalable –
 - Guidance – the 'what', not the 'how'



Educator's Response to SMS

- Current State
- Benefits
- Continued Challenges
- Next steps
- Questions



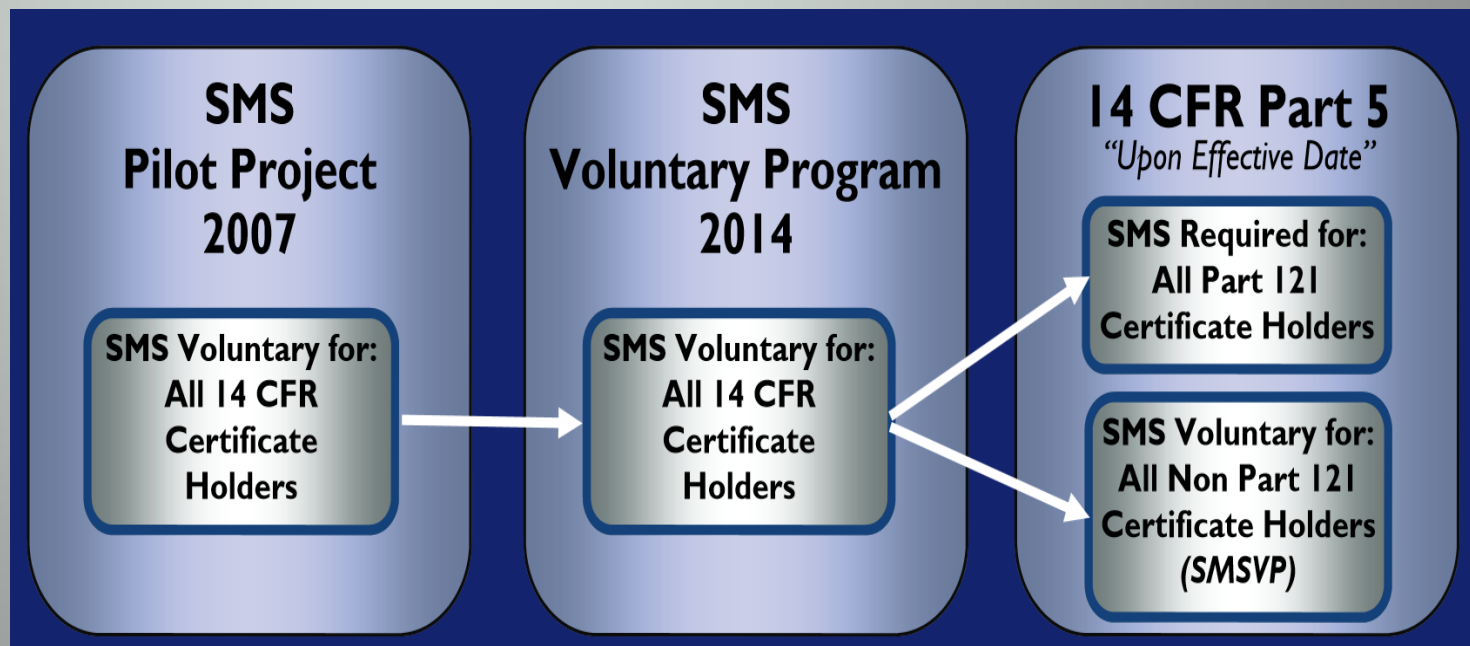
The Standard

- ▶ ATC
- ▶ Part 121
- ▶ Airport Operations
- ▶ Managing a Flight operation
- ▶ Part 135
- ▶ Part 91K
- ▶ Part 141
- ▶ Part 145
- ▶ Non-certificate holders...
- ▶ UAS Operations
- ▶ Contractor with SMS operators
- ▶ Contractors with Federal Agencies
- ▶ International Companies
- ▶ Design and Manufacturing

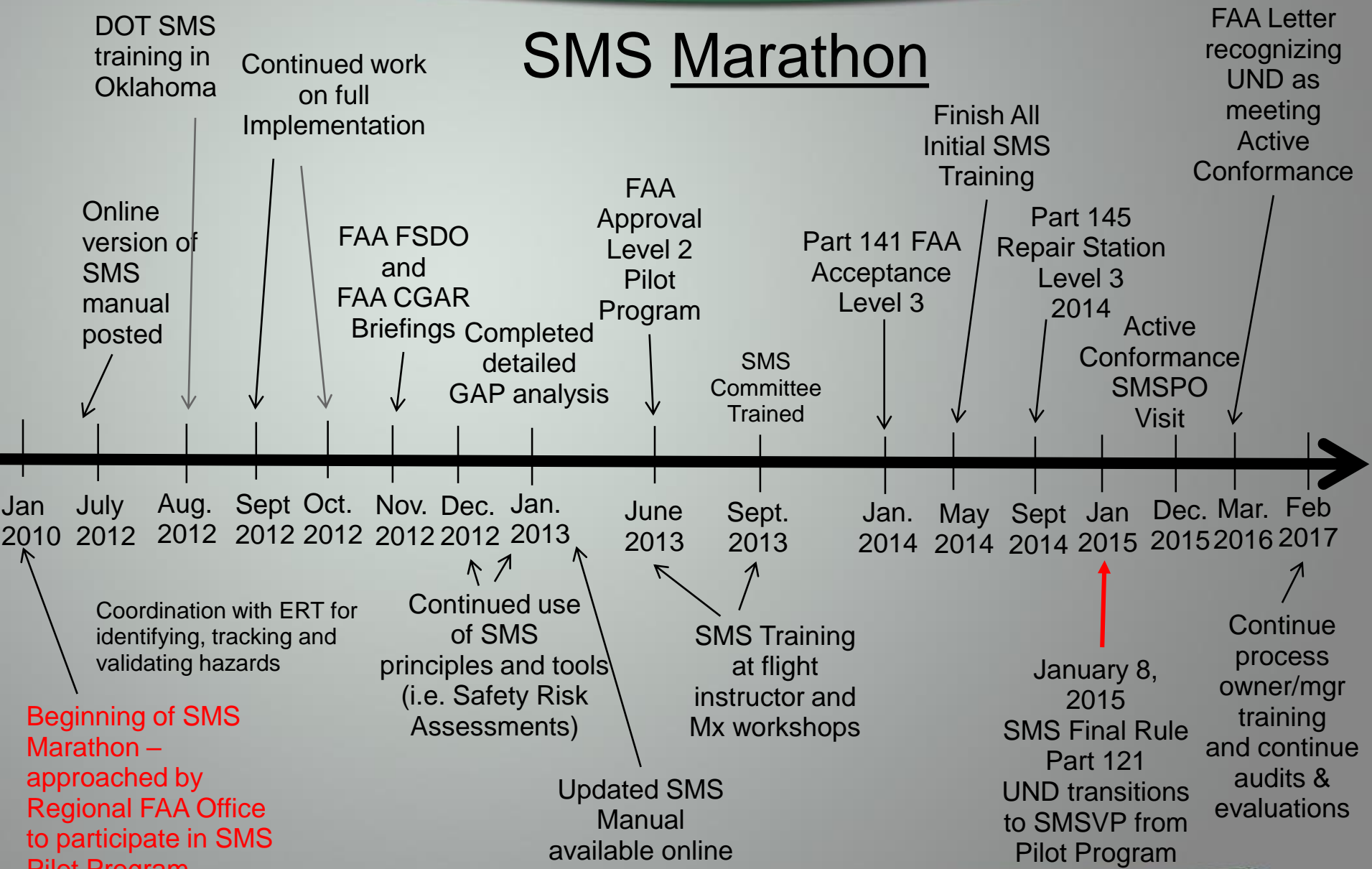


Part 5, Safety Management System for Part 121 Certificate Holders

- Published on January 8, 2015
- The SMS Pilot Program was cancelled.



SMS Marathon



Beginning of SMS Marathon – approached by Regional FAA Office to participate in SMS Pilot Program



Active Conformance



U.S. Department
of Transportation
**Federal Aviation
Administration**

March 9, 2016

Mr. Dana Siewert
Director of Safety
UND Aerospace
2784 Airport Drive Stop 9051
Grand Forks, ND 58202

Dear Mr. Siewert:

This letter acknowledges UND Aerospace as having an accepted Safety Management System (SMS) recognized by the Federal Aviation Administration (FAA) in accordance with the requirements set forth in the SMS Voluntary Program.

Formal SMS development consists of voluntary SMS implementation by operators and other aviation service providers using FAA stated standards. Those standards are based on FAA Order VS 8000.367A, Aviation Safety (AVS) Safety Management System Requirements, the SMS framework specified by the International Civil Aviation Organization (ICAO) in ICAO Annex 19, and further detailed in ICAO document 9859, Safety Management Manual (SMM). Participation in this program signifies that UND Aerospace is implementing an SMS aligned with international standards.

Based on our review of UND Aerospace's planning, documentation, and activities, we have determined that your SMS implementation meets the expectations of the Flight Standards SMS Voluntary Program guidance for acknowledgement of a fully functional SMS. Your FAA certificate management team (CMT) and the Flight Standards SMS Program Office validated this achievement with your cooperation.

The FAA SMSPO and your CMT congratulate you on your company's significant accomplishment in implementing a fully functional SMS that is "accepted by the State." in accordance with international requirements. To maintain your company's current "Active Conformance" status, your company must continue to apply the SMS processes that you developed and implemented to meet the FAA's SMS Voluntary Program requirements. Thank you for your continued commitment to improve aviation safety in our National Airspace System and again, congratulations on your momentous achievement.

Sincerely,


Timothy D. Miller
Manager, Flight Standards
National Field Office



Benefits

- Takes entire system into account for change.
- Proactive emphasis to identify hazards and associated risk
- Places safety hat on production
 - Reduce risk to lowest practical to accomplish mission.
 - White hat on Safety!



Benefits

- Promotes continuous improvement
 - Creating “The Loop” - the plan includes safety assurance.
 - Continuous Monitoring as an organization
 - Closing “The Loop” – culture of assessment
- Identifying unintended consequences and applying lessons learned for continuous improvement



Benefits

- Buy-in and involvement from upper management
 - Safety Performance Review Meetings
- Organization vs the Individual
- Managing change – using 4 components
 - Not stopping at the “fix” like a safety program
- Improved Relationship with FAA
 - Using our Surveys during observations



Continued Challenges

- Working with FAA to keep it practical, usable, and scalable.
 - Preventing SMS from becoming another checklist for the FAA to complete and enforce.
- Knowing where to stop on SRAs
- Resources for continual training due to turn over and recurrent training requirements
 - Especially leadership



Continued Challenges

- Safety Culture Surveys
 - Evidence to measure you safety culture over time.
 - Continuous improvement
 - Identifying different cultures within our organization
 - International
 - undergraduate
 - flight ops
 - maintenance



Continued Challenges

- Defining safety performance expectations to evaluate all levels of employees
- Effective electronic resources to manage and document safety activity
- Maintaining SMS Active Conformance having resources to continue audits and evaluations.



FAA verbiage on Continued Operational Safety (COS)

- Certificate holder's ability to identify and correct its own problems **before** they are discovered by the FAA
- Cert. holder is now required to **produce more evidence of its own data collection and risk analysis activities.**"
- "If an inspector finds a regulatory violation or process nonconformance, his/her **most important concern is** " why didn't the cert. holder's safety management activities identify this problem and if it was identified, why did the management system not contain and/or correct the problem?""



Getting started

- Accountable Executive – Buy-In
- Start documenting what you already do – Gap analysis
- Talk to the FAA ; Industry; other schools
- Establish a Safety Council / Safety Committee
- Start collecting and analyzing data
 - National General Aviation Flight Information Database
 - Current university software
- It's a marathon, write down mile markers
- Start measuring your Safety Culture



Resources

- ASA Book
 - Practical Safety Management Systems: A Practical Guide to Transform Your Safety Program into a Functioning Safety Management System
- SMS Voluntary Program Guide (SMSVP)
- www.faa.gov (search SMS)
- ICAO – Edition 3,2,1
- AC120-92B Advisory Circular



Thank you!

- Questions

