

Normal Operations Safety Survey (NOSS)

Field Study

Presented to:
ICAO/ASPA Regional Seminar

By: Paul Krois and Karen Burcham

Date: March 26, 2008



Federal Aviation
Administration



FAA NOSS Field Trial

- Conducted first trial of NOSS in United States
- Conducted at Minneapolis Air Route Traffic Control Center (ZMP)



Schedule

- August, 2007 - Management Coordination
- October, 2007 – National Air Traffic Controller Association (NATCA) Coordination
- December, 2007 - Facility briefings to Minneapolis ARTCC controller workforce
- January, 2008 - Observer training
- January – February, 2008 - NOSS observation data collection
- February, 2008 - Data verification meeting
- Spring, 2008 – Report and brief findings to workforce



What We Told the Minneapolis ARTCC Workforce

- FAA management and NATCA have agreed on this first research field trial of NOSS
- NOSS uses an observational method to collect safety data during everyday ATC operations
- Certified Professional Controllers from Minneapolis and Cleveland ARTCCs will be trained as observers
- All data are anonymous and confidential, and managed by The University of Texas
- Not a tool to assess individual controller productivity
- NOSS identifies strengths in everyday operations, and vulnerabilities that might lead to operational errors



Memo on NOSS Observer Responsibility



Federal Aviation Administration

Memorandum

Date: MAY - 4 2007

To: Anthony Ferrante, Director, Air Traffic Safety Oversight Services

From: *AWO for* Lyle A. Mello, Acting Vice President, ATO Safety Services

Prepared by: Paul Krois (ATO-P) and Karen Burcham (ATO-S)

Subject: Responsibilities of Observers during NOSS Research Trial

As discussed at the March 26, 2007 Safety Council Meeting, this memo provides coordination between our offices on reporting of potential operational irregularities during observations conducted under the Normal Operations Safety Survey (NOSS) project.

It is understood that ICAO defines NOSS having 10 key operating characteristics. One characteristic holds data collection to be anonymous, confidential and non-punitive. For purposes of trialing NOSS in the field, observers involved in the NOSS research project will not be responsible for reporting observed contraventions in adhering to air traffic control procedures should they be the sole observers of such occurrences. In the time frame during which the NOSS trial is conducted, the observer has no responsibility when conducting NOSS observations for reporting such contraventions. In the event a loss of separation or other incidents occur during a NOSS observation, it remains the responsibility of the observed controller to adhere to standard reporting procedures, in which case that NOSS observation will cease and its data destroyed by the observer; the observer has no role or responsibility in these reporting procedures.

It is the intent of this memo to clarify the responsibilities of the observer during a NOSS observation and resolve any concerns that might arise as controllers volunteer to participate as NOSS observers. This approach intends to facilitate controller trust in NOSS, thereby ensuring research results from the NOSS project represent routine everyday ATC operations and can be assessed for their benefit to the safety management system.



Obtaining NOSS Observers

- Process guided by draft ICAO NOSS Manual
- NATCA identified five Certified Professional Controllers from Minneapolis and Cleveland Centers
- Minneapolis ARTCC provided additional NOSS Observers
- Management concurred with selections



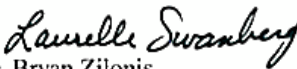
Joint Memo

JOINT MEMORANDUM

To: Minneapolis ARTCC Air Traffic Controller Workforce

From:

for 
Richard L. Day
Vice President, En Route and
Oceanic Services

for 
Bryan Zilonis
Great Lakes Regional Vice President,
National Air Traffic Controllers
Association

Subject: Normal Operations Safety Survey (NOSS) Research Study

Starting January 2008 and continuing for approximately two weeks, the FAA will conduct a Normal Operations Safety Survey (NOSS) research study at ZMP. NOSS is an observational method for collecting safety data during routine everyday operations. NOSS is the ATC version of a safety technique first developed for the flight deck. NOSS has been used by ATC service providers in Australia, New Zealand, Canada, and Finland. We want to see how it works here.

Ten CPCs have been identified to serve as NOSS Observers for the study, eight from ZMP and two from ZOB. They will be trained to conduct observations with support from The University of Texas (UT). Observations at ZMP will be non-punitive and all data will be anonymous and confidential. NOSS data will go directly into a UT database. A report will be provided by UT to management, NATCA, and ZMP workforce.

When conducting NOSS observations, the NOSS Observers have no responsibility for reporting violations of ATC procedures. It remains your responsibility to adhere to standard reporting procedures should a loss of separation or other incident occur, in which case that NOSS observation will cease and its associated data destroyed.

Before starting an observation the NOSS Observer will ask for your permission to be observed. You can accept or decline. If you accept, the NOSS Observer will observe for approximately 1 hour. If you are relieved the observation will continue with permission of the relieving controller. For logistical reasons, a higher percentage of NOSS observations may originate in certain areas.

Please extend your usual professional respect to the NOSS Observers, and thank you for your dedicated efforts in aviation safety. Should you have any questions or comments, please contact the ZMP NOSS study project lead, Mr. Terry Nickisch (651-247-2992).



Costs Associated with NOSS Field Trial

- Part of grant with The University of Texas
- Backfill Overtime for Certified Professional Controllers
- Travel to Minneapolis for NOSS Observers from Cleveland ARTCC



How will FAA use NOSS Data?

- First field trial
 - Test data gathering and analysis techniques
 - Focus on process
 - Assess data set
 - Analyze in light of other operational data (e.g., evaluation data)
 - Identify potential leading indicators
 - Viability of metrics for routine operations
 - Work with facility to determine areas for improvement such as:
 - Working groups to address airborne and ground threats
 - Identify coordination issues to address through training



Continued - How will FAA use NOSS Data?

- Considerations for follow-on field trials
 - Complete research by validating NOSS approach
 - ARTCC aligned with an airline having recent LOSA to assess benchmarking
 - Expand to Terminal
 - Large TRACON
 - Control tower
- Possible long-term implementation
 - Targeted implementation
 - Possible use in specific areas of large facilities



FAA Safety Research and Development

- 2008 National Aviation Research Plan (February, 2008)
<http://research.faa.gov>

