

**Landing Page Information (First page in Qualtrics before proceeding into the survey)**

**OMB Control Number:**

**OMB Expiration:**

Summary (Annual numbers)	Reporting	Recordkeeping	Disclosure
<b># of Respondents</b>	324	0	0
<b># of Responses per respondent</b>	1	0	0
<b>Time per Response</b>	20 mins (1/3 hr)	0	0
<b>Total # of responses</b>	324	0	0
<b>Total burden (hours)</b>	108	0	0

This survey is designed to gather information on actions taken by operators in response to the Federal Aviation Administration’s (FAA) Safety Alert for Operators (SAFO) 17007, titled *Manual Flight Operations Proficiency*. Your responses will provide critical informational support to a broader research effort to understand how manual flight operations proficiency is currently addressed and maintained, and how manual flight operations proficiency could be addressed and maintained in the future.

SAFO 17007 *Manual Flight Operations Proficiency* recommends operators use training and line-operation policies which encourage pilots to develop and maintain manual flight operation proficiency. The survey questions are specific to the actions taken by operators in response to the recommendations included in SAFO 17007.

If you would like to review SAFO 17007, it can be accessed by clicking the link below. If accessed, the SAFO will open in a separate window so you can keep it available for reference as you complete the survey. .

[SAFO 17007 Manual Flight Operations Proficiency \(https://www.faa.gov/other\\_visit/aviation\\_industry/airline\\_operators/airline\\_safety/safo/all\\_safos/media/2017/SAFO17007.pdf\)](https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/all_safos/media/2017/SAFO17007.pdf)

This survey is distributed by the MITRE Corporation under project funding from the Federal Aviation Administration (FAA).

All answers, and personal/organizational information associated with this survey will be de-identified. All information will be coded and summarized so that no individual person or organization can be identified in the results.

If you have any questions or comments about the survey, please do not hesitate to contact the project leader, Dr. Beth Lyall-Wilson at [elyallwilson@mitre.org](mailto:elyallwilson@mitre.org).

We want to make sure we have the best information available, so if you believe there are additional people in the organization that would be appropriate to take this survey, please “reply” to the email with the survey, or email Dr. Lyall-Wilson directly with name(s) and contact information so the survey can be sent directly to them.

**NOTE:** Please do not “forward” the survey to additional people because this link is specifically for you.

Do you understand the purpose of this survey?

Yes

No (Please contact [elyallwilson@mitre.org](mailto:elyallwilson@mitre.org) with questions, comments, concerns)

Do you agree to participate in the survey?

Yes

No

(This survey is completely voluntary. If you answer “No” and will not be participating in the survey, you will be directed to a short feedback section and an exit from the survey).

*[A “no” response will branch them to a feedback text block and an exit from the survey at that point. The feedback text block will have this statement above it]*

We would appreciate you letting us know why you will not be participating the survey and any other feedback you would like to provide. We are focused on improving aviation safety through our studies, and any feedback you give us will be used to better implement this survey and improve future survey development.

Feedback \_\_\_\_\_

## Survey Content for Operations and Standards

Each question in the survey will provide a free text area for Additional Feedback if you wish to elaborate further on any question. Please feel free to use this area to provide additional insights or comments. Some question responses may require Additional Feedback.

1. Are you currently employed by a Part 121 or Part 135 operator?
  - a. Part 121
  - b. Part 135
  - c. Other

Additional Feedback \_\_\_\_\_

2. What position do you currently hold with the Part 121 or Part 135 operator? (Select all that apply)
  - Director of Operations
  - Director of Standards
  - Director of Training
  - Director of Safety
  - Check Pilot
  - Training Pilot
  - Line Pilot
  - Other (please specify in the Additional Feedback area)

Additional Feedback \_\_\_\_\_

*[A scrolling text box showing 5 lines of text at a time will be used for all free text areas regardless of how they're labeled.]*

3. If known, which office/department at your operator was responsible for addressing the recommendations in SAFO 17007 *Manual Flight Operations Proficiency*? (Select all that apply)
  - Training
  - Corporate Safety
  - Flight Safety
  - Operations
  - Standards
  - Do not know
  - Other (please specify in the Additional Feedback area)

Additional Feedback \_\_\_\_\_

4. If known, please select the actions that operations and/or standards implemented in response to *SAFO 17007 Manual Flight Operations Proficiency* (Select all that apply).
- Updates or revisions to operations policies on Manual Flight Operations
  - Instituted new emphasis related to Manual Flight Operations opportunities for line pilots
  - Instituted awareness campaign on Manual Flight Operations importance for line pilots
  - Provided input to the development of new/revised training related to SAFO 17007
  - Provided input to new safety initiatives related to SAFO 17007
  - Do not know
  - Other actions (Please specify in the Additional Feedback area)
  - No Action (If known, please specify why no action was taken in the Additional Feedback area)

Additional Feedback \_\_\_\_\_

5. If known, approximately how long did it take to implement and complete *SAFO 17007 - Manual Flight Operations Proficiency* recommendations into your operational policies and guidelines? (i.e., approximately how long did it take from the publication date (May 2017))?
- We were already fully compliant with SAFO 17007 when it was published
  - 1 - 3 months
  - 3 - 6 months
  - 6 - 9 months
  - 9 months to 1 year
  - More than 1 year
  - Do not know
  - Other (please specify in the Additional Feedback area)

Additional Feedback \_\_\_\_\_

6. If changes were implemented as a result of *SAFO 17007 Manual Flight Operations Proficiency*, what data sources were used to assess the effectiveness of the changes? (**Select all that apply**).
- ASAP data
  - FOQA data
  - LOSA data (or LOSA equivalent)
  - Other data

Additional Feedback \_\_\_\_\_

7. For each data source used, please describe the metrics and how they were utilized in the text area provided.

If you used ASAP data, please describe your metrics and how they were utilized.

**Text Box**

If you used FOQA data, please describe your metrics and how they were utilized.

**Text Box**

If you used LOSA data (or LOSA equivalent), please describe your metrics and how they were utilized.

**Text Box**

If you used Other sources of data, please describe your metrics and how they were utilized.

**Text Box**

8. The following line operations policy recommendations are included in *SAFO 17007 Manual Flight Operations Proficiency*. Please indicate whether or not each recommendation is addressed in your operator's policy and provide any other comments in the Additional Feedback area

- a) *SAFO 17007 Manual Flight Operations Proficiency: "Encouragement to manually fly the aircraft when conditions permit, including at least periodically, the entire departure and arrival phases, and potentially the entire flight, if/when practicable and permissible".*
  - Fully covered in policy with specific guidance on "when conditions permit"
  - Partially covered in policy
  - Not covered in policy
  - Do not know

Additional Feedback \_\_\_\_\_

- b) *SAFO 17007 Manual Flight Operations Proficiency: "When deciding to fly manually, crews should apply basic threat and error management principles and take into account the various factors affecting operational workload. Factors to consider include:*
  - *Weather conditions, terrain, and/or other environmental threats*
  - *Time of day*
  - *Psychological and/or physiological factors*
  - *Level of crew experience*
  - *Traffic density*

- *Condition of the aircraft, and/or any non-normal conditions*
- *Air Traffic Control and/or instrument procedural challenges*
- *Any other operational threats”*

- Fully covered in policy with specific guidance on which factors to consider
- Partially covered in policy with general factors to be considered
- Not covered in policy
- Do not know

Additional Feedback \_\_\_\_\_

c) SAFO 17007 *Manual Flight Operations Proficiency: “Allow pilots to conduct manual flight with all approved combinations of automation based on aircraft equipage, e.g.”*

- FD on, AP off, AT on
- FD on, AP off, AT off
- FD off, AP off, AT off
- FD on, AP on, AT off

Note: Flight Director (FD), Auto Pilot (AP), Auto Throttle (AT)

- Fully covered in policy with specific guidance on how to employ automated systems with Manual Flight Operations
- Partially covered in policy with general guidance on how to employ automated systems with Manual Flight Operations
- Not covered in policy
- Do not know

Additional Feedback \_\_\_\_\_

d) SAFO 17007 *Manual Flight Operations Proficiency: “A clear statement that the pilot in command (PIC) must use good judgment to consider the factors described above and to decide, on a case-by-case basis, when it is appropriate to conduct manual flying.”*

- Fully covered in policy with specific factors to be considered
- Partially covered in policy with general factors to be considered
- Not covered in policy
- Do not know

Additional Feedback \_\_\_\_\_

9. Did SAFO 17007 *Manual Flight Operations Proficiency* influence the addition or inclusion of any of the items in Question 8 in your operator’s policy? (Please share specific changes in the Additional Feedback section).

- Yes

- No
- Do not know

Additional Feedback \_\_\_\_\_

10. The following line operations policy recommendations are included in SAFO 17007 *Manual Flight Operations Proficiency*. Please indicate whether or not each recommendation is addressed in your operator's SOP and provide any other comments in the Additional Feedback area

a) SAFO 17007 *Manual Flight Operations Proficiency*: "Encouragement to manually fly the aircraft when conditions permit, including at least periodically, the entire departure and arrival phases, and potentially the entire flight, if/when practicable and permissible".

- Fully covered in the SOP with specific guidance on "when conditions permit"
- Partially covered in the SOP
- Not covered in the SOP
- Do not know

Additional Feedback \_\_\_\_\_

b) SAFO 17007 *Manual Flight Operations Proficiency*: "When deciding to fly manually, crews should apply basic threat and error management principles and take into account the various factors affecting operational workload. Factors to consider include:

- Weather conditions, terrain, and/or other environmental threats
- Time of day
- Psychological and/or physiological factors
- Level of crew experience
- Traffic density
- Condition of the aircraft, and/or any non-normal conditions
- Air Traffic Control and/or instrument procedural challenges
- Any other operational threats"

- Fully covered in the SOP with specific guidance on which factors to consider
- Partially covered in the SOP with general factors to be considered
- Not covered in the SOP
- Do not know

Additional Feedback \_\_\_\_\_

c) SAFO 17007 *Manual Flight Operations Proficiency*: "Allow pilots to conduct manual flight with all approved combinations of automation based on aircraft equipment, e.g.,"

- FD on, AP off, AT on
  - FD on, AP off, AT off
  - FD off, AP off, AT off
  - FD on, AP on, AT off
- 
- Fully covered in the SOP with specific guidance on how to employ automated systems with Manual Flight Operations
  - Partially covered in the SOP with general guidance on how to employ automated systems with Manual Flight Operations
  - Not covered in the SOP
  - Do not know

Additional Feedback \_\_\_\_\_

d) SAFO 17007 *Manual Flight Operations Proficiency*: “A clear statement that the pilot in command (PIC) must use good judgment to consider the factors described above and to decide, on a case-by-case basis, when it is appropriate to conduct manual flying.”

- Fully covered in the SOP with specific factors to be considered
- Partially covered in the SOP with general factors to be considered
- Not covered in the SOP
- Do not know

Additional Feedback \_\_\_\_\_

11. Did SAFO 17007 *Manual Flight Operations Proficiency* influence the addition or inclusion of any of the items in Question 9 in your operator’s SOPs? (Please share specific changes in the Additional Feedback section).

- Yes
- No
- Do not know

Additional Feedback \_\_\_\_\_

12. Please provide the specific recommendations given to pilots to evaluate risk prior to commencing Manual Flight Operations.

**Text Box**



13. Have Crew Resource Management (CRM) practices or requirements changed in response to SAFO 17007 *Manual Flight Operations Proficiency* recommendations? (Please describe specific CRM practices or requirements that have changed).

**Text Box**

14. Do you have policies that mandate the use of automated systems during certain operations or phases of flight?

- Yes (Please specify which systems are required and when they are required to be used in the Additional Feedback section)
- No
- Do not know

Additional Feedback \_\_\_\_\_

15. Please add any other information that you would like to share related to Manual Flight Operations Proficiency, including policies, procedures, training, or other topics.

Additional Feedback \_\_\_\_\_