June 2, 2020

Mr. Bruno Even
Chief Executive Officer
Airbus Helicopters
Aeroport International Marseille Provence
13725 Marignane Cedex
France

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters.

The attached letter from the NTSB Chairman provides information about the NTSB's May 19, 2020, report *Install Flight Data, Audio, and Image Recorder Systems on all Turbine-Powered Helicopters* NTSB/ASR-20/04. The details of this accident investigation and the resulting safety recommendations may be found in the attached report, which can also be accessed at http://www.ntsb.gov. For more information about NTSB and our recommendation process, please see the attached one-page summary.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate a response within 90 days of the date of this letter, detailing the actions you have taken or intend to take to implement these recommendations. When replying, please refer to the safety recommendations by number (for example, A-20-27 through -30). We encourage you to submit your response to ExecutiveSecretariat@ntsb.gov. If your reply exceeds 20 megabytes, including attachments, please e-mail us at the same address for instructions on how to send larger documents. Please do not submit both an electronic copy and a hard copy of the same response.

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National Transportation Safety Board
Washington, DC 20594

Office of the Chairman

June 2, 2020

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Chief Executive Officer
Airbus Helicopters
Aeroport International Marseille Provence
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Dear Mr. Even:

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We are providing the following information to urge Airbus Helicopters to act on the safety recommendations in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

This letter also includes information about our May 19, 2020, report *Install Flight Data, Audio, and Image Recorder Systems on all Turbine-Powered Helicopters* NTSB/ASR-20/04. The details of our analysis and the resulting safety recommendations may be found in the attached report, which can also be accessed at http://www.ntsb.gov.

As a result of this investigation, we identified the following safety issue:

- A sustained lack of regulatory progress by the Federal Aviation Administration in requiring technical standard order-compliant crash-resistant recorder systems and crash-protected image recorder systems on all turbine-powered helicopters.

Accordingly, the NTSB makes the following safety recommendations to Airbus Helicopters:

Install, on your newly manufactured turbine-powered helicopters that are not equipped with a flight data recorder and a cockpit voice recorder, a crash-resistant flight recorder system that records cockpit audio and images with a view of the cockpit environment to include as much of the outside view as possible and parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems." The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-27)

Install, on your newly manufactured turbine-powered helicopters that are equipped with a flight data recorder and a cockpit voice recorder, a crash-protected cockpit image recorder system compliant with Technical Standard Order C176a, "Cockpit Image Recorder Equipment," or equivalent. The cockpit image recorder should be equipped with an independent power source consistent with that required for cockpit voice recorders in Title 14 *Code of Federal Regulations* 29.1457. The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-28)

Provide, on your existing turbine-powered helicopters that are not equipped with a flight data recorder or a cockpit voice recorder, a means to install a crash-resistant flight recorder system that records cockpit audio and images with a view of the cockpit environment to include as much of the outside view as possible and parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems." The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-29)

Provide, on your existing turbine-powered helicopters that are equipped with a flight data recorder and a cockpit voice recorder, a means to install a crash-protected cockpit image recorder system that is compliant with Technical Standard Order C176a, "Cockpit Image Recorder Equipment," or equivalent. The cockpit image recorder system should be equipped with an independent power source consistent with that required for cockpit voice recorders in Title 14 *Code of Federal Regulations* 29.1457. The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-30)

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Sincerely,

[Original Signed]

Robert L. Sumwalt, III
Chairman

cc: Mr. Gilles Bruniaux
Vice President of Product Safety

Enclosures

June 2, 2020

Mr. Mitch Snyder
President and Chief Executive Officer
Bell
Post Office Box 482
Fort Worth, Texas 76101

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Office of the Chairman

June 2, 2020

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President and Chief Executive Officer
Bell
Post Office Box 482
Fort Worth, Texas 76101

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We are providing the following information to urge Bell to act on the safety recommendations in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

This letter also includes information about our May 19, 2020, report *Install Flight Data, Audio, and Image Recorder Systems on all Turbine-Powered Helicopters* NTSB/ASR-20/04. The details of our analysis and the resulting safety recommendations may be found in the attached report, which can also be accessed at http://www.ntsb.gov.

As a result of this investigation, we identified the following safety issue:

- A sustained lack of regulatory progress by the Federal Aviation Administration in requiring technical standard order-compliant crash-resistant recorder systems and crash-protected image recorder systems on all turbine-powered helicopters.

Accordingly, the NTSB makes the following safety recommendations to Bell:

Install, on your newly manufactured turbine-powered helicopters that are not equipped with a flight data recorder and a cockpit voice recorder, a crash-resistant flight recorder system that records cockpit audio and images with a view of the

cockpit environment to include as much of the outside view as possible and parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems." The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-27)

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Sincerely,

[Original Signed]

Robert L. Sumwalt, III
Chairman

Enclosures

June 2, 2020

Mr. Gian Piero Cutillo
Managing Director
Via G. Agusta 520
Leonardo Helicopter Division
21017 Cascina Costa di Samarate (Varese)
Italy

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Office of the Chairman

June 2, 2020

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21017 Cascina Costa di Samarate (Varese)
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We are providing the following information to urge Leonardo Helicopter Division to act on the safety recommendations in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

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As a result of this investigation, we identified the following safety issue:

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Accordingly, the NTSB makes the following safety recommendations to Leonardo Helicopter Division:

Install, on your newly manufactured turbine-powered helicopters that are not equipped with a flight data recorder and a cockpit voice recorder, a crash-resistant flight recorder system that records cockpit audio and images with a view of the cockpit environment to include as much of the outside view as possible and parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems." The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-27)

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Sincerely,

[Original Signed]

Robert L. Sumwalt, III
Chairman

Enclosures

June 2, 2020

Mr. William Black
Vice President and General Counsel
MD Helicopters
4555 East McDowell Road
Mesa, Arizona 85215

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Office of the Chairman

June 2, 2020

Mr. William Black
Vice President and General Counsel
MD Helicopters
4555 East McDowell Road
Mesa, Arizona 85215

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We are providing the following information to urge MD Helicopters to act on the safety recommendations in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

This letter also includes information about our May 19, 2020, report *Install Flight Data, Audio, and Image Recorder Systems on all Turbine-Powered Helicopters* NTSB/ASR-20/04. The details of our analysis and the resulting safety recommendations may be found in the attached report, which can also be accessed at http://www.ntsb.gov.

As a result of this investigation, we identified the following safety issue:

- A sustained lack of regulatory progress by the Federal Aviation Administration in requiring technical standard order-compliant crash-resistant recorder systems and crash-protected image recorder systems on all turbine-powered helicopters.

Accordingly, the NTSB makes the following safety recommendations to MD Helicopters:

Install, on your newly manufactured turbine-powered helicopters that are not equipped with a flight data recorder and a cockpit voice recorder, a crash-resistant flight recorder system that records cockpit audio and images with a view of the cockpit environment to include as much of the outside view as possible and

parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems." The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-27)

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Sincerely,

[Original Signed]

Robert L. Sumwalt, III
Chairman

Enclosures

June 2, 2020

Mr. Kurt Robinson
President
Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505

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Office of the Chairman

June 2, 2020

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President
Robinson Helicopter Company
2901 Airport Drive
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We are providing the following information to urge Robinson Helicopter Company to act on the safety recommendations in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

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- A sustained lack of regulatory progress by the Federal Aviation Administration in requiring technical standard order-compliant crash-resistant recorder systems and crash-protected image recorder systems on all turbine-powered helicopters.

Accordingly, the NTSB makes the following safety recommendations to Robinson Helicopter Company:

Install, on your newly manufactured turbine-powered helicopters that are not equipped with a flight data recorder and a cockpit voice recorder, a crash-resistant flight recorder system that records cockpit audio and images with a view of the cockpit environment to include as much of the outside view as possible and

parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems." The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-27)

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The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate a response within 90 days of the date of this letter, detailing the actions you have taken or intend to take to implement these recommendations. When replying, please refer to the safety recommendations by number (Safety Recommendations A-20-27 and -29). We encourage you to submit your response to ExecutiveSecretariat@ntsb.gov. If your reply, including attachments, exceeds 20 megabytes, please e-mail us at the same address for instructions on how to send larger documents. Please do not submit both an electronic copy and a hard copy of the same response.

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Sincerely,

[Original Signed]

Robert L. Sumwalt, III
Chairman

Enclosures

June 2, 2020

Mr. Daniel Schultz
President
Sikorsky, a Lockheed Martin Company
6900 Main Street
Stratford, Connecticut 06615

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters.

The attached letter from the NTSB Chairman provides information about the NTSB's May 19, 2020, report *Install Flight Data, Audio, and Image Recorder Systems on all Turbine-Powered Helicopters* NTSB/ASR-20/04. The details of this accident investigation and the resulting safety recommendations may be found in the attached report, which can also be accessed at http://www.ntsb.gov. For more information about NTSB and our recommendation process, please see the attached one-page summary.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate a response within 90 days of the date of this letter, detailing the actions you have taken or intend to take to implement these recommendations. When replying, please refer to the safety recommendations by number (for example, A-20-28 through -30). We encourage you to submit your response to ExecutiveSecretariat@ntsb.gov. If your reply exceeds 20 megabytes, including attachments, please e-mail us at the same address for instructions on how to send larger documents. Please do not submit both an electronic copy and a hard copy of the same response.

All communications regarding safety recommendations will be stored by the NTSB and viewable by the public. Please do not send privileged or confidential communications in response to this/these recommendation(s). Responses marked as confidential or privileged (or similar designations) will be considered nonresponsive. If you have concerns about this protocol, please contact us at ExecutiveSecretariat@ntsb.gov.

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National Transportation Safety Board
Washington, DC 20594

Office of the Chairman

June 2, 2020

Mr. Daniel Schultz
President
Sikorsky, a Lockheed Martin Company
6900 Main Street
Stratford, Connecticut 06615

Dear Mr. Schultz:

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to assist victims and their family members affected by major transportation disasters.

We are providing the following information to urge Sikorsky to act on the safety recommendations in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

This letter also includes information about our May 19, 2020, report *Install Flight Data, Audio, and Image Recorder Systems on all Turbine-Powered Helicopters* NTSB/ASR-20/04. The details of our analysis and the resulting safety recommendations may be found in the attached report, which can also be accessed at http://www.ntsb.gov.

As a result of this investigation, we identified the following safety issue:

- A sustained lack of regulatory progress by the Federal Aviation Administration in requiring technical standard order-compliant crash-resistant recorder systems and crash-protected image recorder systems on all turbine-powered helicopters.

Accordingly, the NTSB makes the following safety recommendations to Sikorsky:

Install, on your newly manufactured turbine-powered helicopters that are equipped with a flight data recorder and a cockpit voice recorder, a crash-protected cockpit image recorder system compliant with Technical Standard Order C176a, “Cockpit Image Recorder Equipment,” or equivalent. The cockpit image recorder should be

equipped with an independent power source consistent with that required for cockpit voice recorders in Title 14 *Code of Federal Regulations* 29.1457. The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-28)

Provide, on your existing turbine-powered helicopters that are not equipped with a flight data recorder or a cockpit voice recorder, a means to install a crash-resistant flight recorder system that records cockpit audio and images with a view of the cockpit environment to include as much of the outside view as possible and parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems." The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-29)

Provide, on your existing turbine-powered helicopters that are equipped with a flight data recorder and a cockpit voice recorder, a means to install a crash-protected cockpit image recorder system that is compliant with Technical Standard Order C176a, "Cockpit Image Recorder Equipment," or equivalent. The cockpit image recorder system should be equipped with an independent power source consistent with that required for cockpit voice recorders in Title 14 *Code of Federal Regulations* 29.1457. The recorder system installation should be considered essential equipment that remains installed for the life of the helicopter and have provisions to ensure it remains operational during each flight. (A-20-30)

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate a response within 90 days of the date of this letter, detailing the actions you have taken or intend to take to implement these recommendations. When replying, please refer to the safety recommendations by number (Safety Recommendations A-20-28 through -30). We encourage you to submit your response to ExecutiveSecretariat@ntsb.gov. If your reply, including attachments, exceeds 20 megabytes, please e-mail us at the same address for instructions on how to send larger documents. Please do not submit both an electronic copy and a hard copy of the same response.

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auto-generated and/or preformatted confidentiality statements on letterhead or outgoing e-mails, please include a statement in your letter indicating that the information can be publicly released. If you have concerns about this protocol, please contact us at ExecutiveSecretariat@ntsb.gov.

Sincerely,

[Original Signed]

Robert L. Sumwalt, III
Chairman

Enclosures

Safety Recommendation Reiteration List

SR Number	Reiteration Number	Report Number	Report Date	Accident Description	Accident City	Accident State	Accident Date
A-20-029	1	AAR-21-01	2/25/2021	Rapid Descent Into Terrain Island Express Helicopters Inc. Sikorsky S-76B, N72EX	Calabasas	California	1/26/2020