

**ATLAS AIR, INC.
and
the CREW MEMBERS
in the service of Atlas Air, Inc.
as represented by
INTERNATIONAL BROTHERHOOD OF TEAMSTERS,
AIRLINE DIVISION**

FATIGUE RISK MANAGEMENT LETTER OF AGREEMENT

This Letter of Agreement (“LOA”) is made and entered into in accordance with the provisions of Title II of the Railway Labor Act, as amended, by and between Atlas Air, Inc., its successors and assigns (“Company”) and the Crew Members in the service of Atlas Air, Inc., as represented by the International Brotherhood of Teamsters, Airline Division (“IBT” or “Union”).

WHEREAS, the Company and Union are parties to a collective bargaining agreement setting forth the rates of pay, rules, and working conditions for the Company's Crew Members ("Agreement");

WHEREAS, the Company has developed and implemented a Fatigue Risk Management Plan ("FRMP") and has developed a Fatigue Risk Management System ("FRMS"), which will include methodologies for continually assessing the Company's ability to improve Crew Member alertness, mitigate performance errors, and improve Crew Member recovery;

WHEREAS, the collection of human performance/alertness data of the kind described in this LOA will contribute to the Company and Union's shared interest in ensuring safe flight operations and their ability to evaluate and improve the Company's FRMP and FRMS, pairing design and line construction parameters in accordance with the Agreement, and to analyze potential pairing design that the parties agree are appropriate for study and potential use but are not currently utilized.

WHEREAS, data collection of the kind described in this LOA may also be used to identify actual and potential sources of interference with Crew Member rest, including but not limited to deadhead travel and hotel accommodations.

NOW, THEREFORE, the parties agree as follows:

A. Fatigue Risk Management Committee

1. The parties will establish a Fatigue Risk Management Committee (FRMC). The FRMC will consist of a Program Manager employed by or under contract with the Company; two (2) representatives and two (2) alternates chosen by the Union; and two (2) representatives and two (2) alternates chosen by the Company. The parties will consult with each other before selecting their respective FRMC representatives and alternates. After consultation with and written notice to the other party, a party may replace its

representative(s) and alternate(s) on the FRMC. The FRMC will not conduct business pursuant to this LOA unless representatives from both the Union and the Company are available to participate.

2. The FRMC Program Manager, representatives and alternates must execute a non-disclosure agreement (NDA) that is mutually agreeable to the Company and the Union prior to performing FRMC duties or collecting, accessing or analyzing data or any information derived from such data.
3. All FRMC recommendations and actions require the unanimous agreement of all four (4) FRMC representatives. In the event the four (4) FRMC are unable to reach unanimous agreement, the matter will be referred to the Senior Vice President, Flight Operations and the Chairman of the Atlas Air, Inc. Executive Council, who will meet at a mutually acceptable date and time to discuss the issue and potential resolutions. After this meeting, the Senior Vice President, Flight Operations will advise the Atlas EXCO Chairman in writing of what actions, if any, the Company will take to address the issue or concern.
4. The duties of the Program Manager will be by mutual agreement of the FRMC representatives. Such duties will be set forth in writing and presented to the Program Manager. The Program Manager will execute a document indicating that he understands and agrees to perform the duties contained therein, a copy of which will be provided to the Company and the Union.
5. The Company will release Union FRMC representatives and alternates from conflicting duty when necessary to perform FRMC duties, subject to the needs of the service. If an FRMC meeting cannot be held with representatives of both the Union and the Company, it will be rescheduled to a mutually agreeable date. When a Union FRMC member is removed from conflicting duty in accordance with this paragraph, he will be compensated in accordance with flight pay loss procedures under Article 13.I.9., of the Agreement.
6. The FRMC, in conjunction with the Primary Research Partner, described below, is solely responsible for administering the data collection efforts authorized by this LOA and for creating methodologies and procedures for de-identifying and protecting data in accordance with the Data Security and Protection provisions, below. No person or entity other than the FRMC will have access to data that has not been de-identified.
7. The FRMC may make recommendations to the Company and the Union, derived from the Primary Research Partner's analysis of de-identified data, for the purpose of improving Crew Member alertness and mitigating fatigue risks. FRMC recommendations may include, but are not limited to the following areas, consistent with the applicable provisions of the Agreement:

- a. Improvements to existing trip pairing design;
- b. Improvements to existing line construction parameters;
- c. Company initiated, prescriptive fatigue mitigation strategies;
- d. New trip or modified pairing designs;
- e. Changes to the list of hotels utilized by Crew Member hotels; and
- f. Providing Company training for Crew Members addressing fatigue risk management, mitigating performance errors and improving Crew Member recovery.

The Union agrees and acknowledges any data and/or reports collected pursuant to this LOA, any recommendations made by the FRMC, and/or any decisions made by the Company/Company's Senior Vice President of Flight Operations regarding any matter raised pursuant to Paragraph A.3 of this LOA will not be used in establishing or filing a grievance under Article 20 of the Agreement.

8. No FRMC recommendation will be implemented by the Company without the agreement of the Union if the recommendation modifies or changes the terms of the Agreement.
9. The FRMC is authorized to solicit Crew Members to voluntarily participate in the FRMC's data collection efforts. The FRMC will initially collect data on trip pairings and trip pairing sequences that have been identified jointly by the Company and the Union as appropriate for analysis by the Primary Research Partner. Additionally, the FRMC is authorized to solicit Crew Members to voluntarily participate in the FRMC's data collection efforts related to sleep patterns, cognitive alertness, cumulative fatigue, mood, circadian rhythm disruption and recovery before, during, and after flight operations for specific trip pairings, including deadhead, and for general baseline data collection.

B. Primary and Alternate Research Partners

1. The Company and the Union will consult with each other on the selection of research partners. There will be a Primary Research Partner, selected by the Company and Alternate Research Partner, selected by the Union.
2. After consultation with the other party, the Company or the Union may remove its own respective research partner and replace him/her with new research partners and/or add additional research partners than those selected pursuant to paragraph B.1., above.
3. The Primary Research Partner ("PRP") will be responsible for analyzing the de-identified data collected by the FRMC. The Company will bear the cost of analysis

performed by the PRP.

4. At the conclusion of any particular study, the PRP will prepare a report for the FRMC, which will include recommendations and/or recommended additional analysis, if appropriate, related to Crew Member alertness, mitigating fatigue risks, sleep patterns, cognitive alertness, cumulative fatigue, mood, circadian rhythm disruption performance errors, and improving Crew Member recovery before, during, and after flight operations for specific trip pairings, including deadhead.
5. The Union may direct the Alternate Research Partner ("ARP") to conduct a second analysis of the data reviewed by the PRP. The ARP will prepare a report for the FRMC of the type described in Paragraph B.4., above. Any analysis performed by the ARP will be at Union's expense.
6. Research, analyses and reports prepared by the PRP (or the ARP) will meet generally accepted scientific research standards for qualitative and quantitative research.
7. The PRP and the ARP must sign an agreed upon non-disclosure agreement prohibiting use or disclosure of all data, research and analyses to any person or entity other than the FRMC, the Company and Union without the prior written consent of the Company and the Atlas EXCO Chairman, unless specifically permitted by this LOA.

C. Data Collection Protocol

1. All data collection will conform to the protocol(s) developed by the FRMC in consultation with the Primary Research Partner. Such protocol(s) will satisfy the requirements of this LOA and meet generally accepted scientific standards for qualitative and quantitative research.
2. Crew Members who volunteer to participate in data collection efforts will be briefed by the FRMC (or its designee) on the nature and requirements of the data collection effort and will be permitted to ask questions concerning participating Crew Members' data collection responsibilities and obligations under the data collection protocol.
3. Each participating Crew Member will be provided with detailed information concerning the data collection effort and must review and sign a FRMC-approved "Consent to Voluntary Participation" form, which must fully describe the Crew Member's responsibilities and obligations during the data collection effort. The Company and the Union will be provided with copies of each participating Crew Member's executed Consent to Voluntary Participation form.
4. A Crew Member may withdraw from the data collection effort at any time by notifying the FRMC (or its designee) by telephone or by electronic mail.

5. The FRMC may terminate a Crew Member's participation in the data collection.
6. Failure of the participating Crew Member to complete all required documentation will be considered withdrawal from the data collection effort.
7. Intentional efforts to skew actigraph and/or any data will be considered withdrawal from the data collection effort.
8. No Crew Member may be compelled to participate in data collection efforts.

When the Company requests that a Crew Member participate in the collection of data for purposes of FRMS, it will compensate the participating Crew Member at the rate of Five Hundred Dollars (\$500) per Bid Month. Any pay earned under this paragraph will be paid after the data is received and validated by the FRMC, and the Crew Member may be required to submit a pay log. A Crew Member's completion of a Fatigue Event Report shall not be considered collection of data for purposes of this paragraph, and the Crew Member shall not be entitled to pay for completing a Fatigue Event Report.

D. Data Security and Protection

1. The FRMC is responsible for developing data security and protection procedures. Such procedures will be agreed upon and set forth in writing prior to any data collection under this LOA. At a minimum, such procedures will require that data:
 - a. be de-identified by the FRMC (or its designee) to the maximum extent possible so that the identity of the Crew Member cannot be discovered;
 - b. be stored in de-identified form in electronic format on a secure server; and
 - c. be released only by the PRP (or ARP) (in de-identified format) to an individual or entity other than the FRMC, Company, Union, or the PRPs (or ARPs) only upon obtaining prior written permission from the Company and the Union, or when required by law. If either party fails to provide written authorization, the PRP (or the ARP) will not make the proposed disclosure unless required by law. The PRP (or ARP) will provide written notice to the Company and the Union prior to making any disclosure required by law.
2. The Crew Member protections set forth in Article 26.C of the Agreement will apply to data and reports collected pursuant to this LOA, subject to the following limitations as provided in the FRMP Guidelines:
 - Must not involve intentional disregard for safety;
 - Must not involve intentional violation of FARs;
 - Must not involve criminal activity;
 - Must not involve substance abuse; and
 - Must not have been intentionally falsified.

3. The data collected by the FRMC and the analyses of the PRP (or the ARP) will not be used by the Company or Union to support their respective efforts to change existing, proposed or future law or regulations. Neither party will use the data collected or analyses of the PRP (or the ARP) in litigation of any type, including but not limited to grievances and System Board of Adjustment proceedings conducted pursuant to Articles 19, 20, and 21 of the Agreement, without the written consent of the Company and the Atlas EXCO Chairman.
4. The Company may use de-identified data collected by the FRMC and the analyses of the PRP to support the approval of its FRMS by the FAA. In the event that the Company's FRMS submission utilizes analyses, conclusions, recommendations, or opinions of the PRP, which led to the preparation of a report on the same subject by the ARP, the Company, in its FRMS submission to the FAA, must include the analyses, conclusions, recommendations, or opinions from both research partners. Under no circumstances will data that has not been de-identified be provided to the Company or the FAA.
5. The PRP and/or the ARP may publish their final reports in a peer reviewed scientific journal, provided that both the Company and Union consent and have an opportunity to review the written work product prior to its submission for publication.
6. All data collected under this LOA will be treated as data collected from "other recording devices" under Article 26.I. of the Agreement. Crew Members who voluntarily participate in data collection efforts will be afforded all of the rights and protections granted to Crew Members under Article 26.I of the Agreement without limitation. Except as specifically modified by this LOA, all restrictions on the use of data collected from "Other Recording Devices" under Article 26.I of the Agreement will apply to data collected pursuant to this LOA.

E. Ongoing Implementation Measures

Other measures not specifically described in this LOA that are consistent with the purpose of this LOA may be implemented by mutual agreement of the parties.

F. Fatigue Process

1. A Crew Member who is fatigued prior to actual report time at the beginning of a Trip Pairing, or who becomes fatigued after reporting for a Trip Pairing, shall notify Crew Scheduling immediately. In either case, the Crew Member shall be given a ten (10) hour rest period, and the Company shall choose one of the following options:
 - a. The Company may delay the flight until after the legal rest period is concluded.
 - b. The Company may drop the Crew Member's current Trip Pairing, and the Crew Member shall be eligible for reassignment pursuant to Article 25.N. of the Agreement.

2. A Crew Member who calls in fatigued prior to actual report time at the beginning of a Trip Pairing:
 - a. Will promptly contact a Chief Pilot on the FRMC subsequent to the completion of his rest period to discuss the events related to the fatigue call; and
 - b. Will be contacted by a member of the FRMC Committee within thirty- six (36) hours after the rest period associated with the fatigue call to discuss the events related to the fatigue call.
3. Crew Scheduling shall have one hour from the time of the Crew Member's fatigue call to determine which of the options set forth in Paragraph F.1., above, it shall select.
4. A Crew Member who calls fatigue during a Trip Pairing shall have local transportation and lodging provided by the Company in accordance with the Agreement.
5. In the event there are any questions about the Crew Member's fatigue call, members of the FRMC will make the initial contact with the pilot to discuss the issue(s) further.
6. The Crew Member shall submit a Fatigue Event Report, via the means designated by the Company for submission of such reports, within forty- eight (48) hours after the rest period associated with his fatigue call.
7. The FRMC shall meet and discuss Crew Member fatigue calls in accordance with this Letter of Agreement. If the FRMC determines that a fatigue call should have been a sick call, the Crew Member's event will be handled in accordance with Article 14.

G. Termination and Duration

This LOA will remain in effect concurrently with the Agreement, unless terminated by either party upon thirty (30) days' written notice. If either party invokes its right to terminate this LOA, the NDA, Data Collection Protocols and the Data Protection and Security provisions of this LOA will continue to apply to data collected prior to termination of the LOA.

IN WITNESS WHEREOF, the parties have signed this Letter of Agreement on this ____ day of _____.

FOR ATLAS AIR, INC.

**FOR INTERNATIONAL BROTHERHOOD OF
TEAMSTERS, AIRLINE DIVISION**