

# APA Project Wingman: Peer & Professional Support



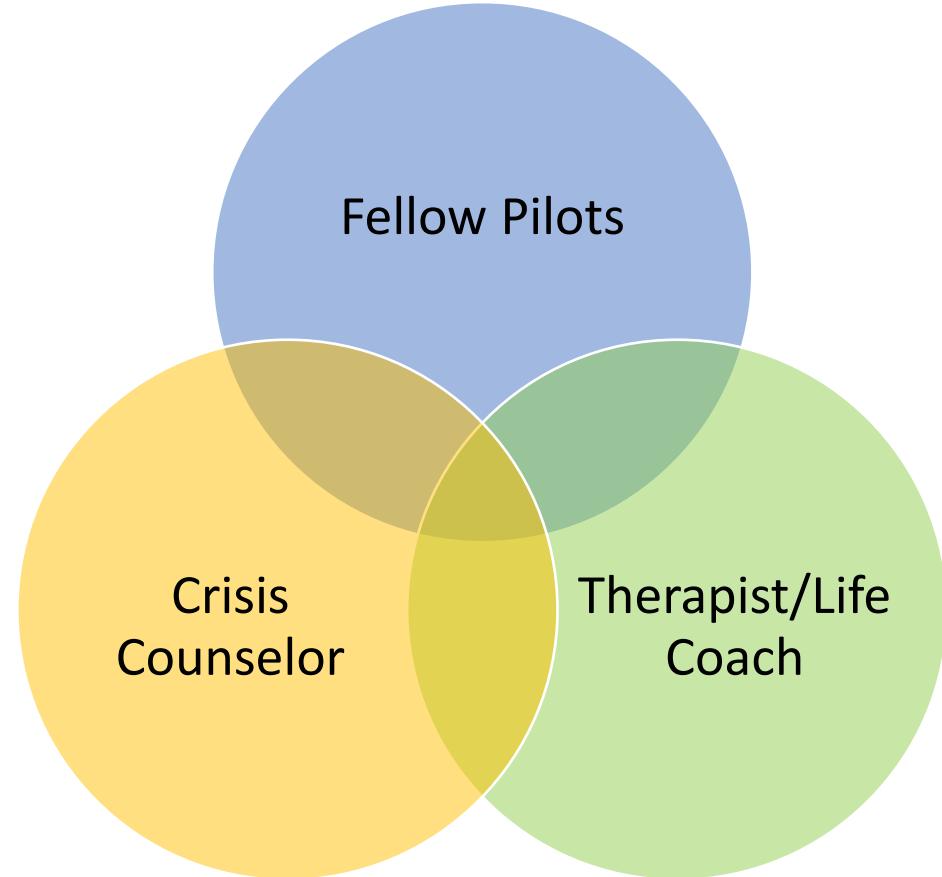
First Officer Peter Gillespie  
Deputy Chairman

# PROJECT WINGMAN



# What is Peer Support for Pilots?

- Peer support for airline pilots is a combination of three domains.



# Project Wingman Structure



24/7 Crisis Support via a hotline phone number



50 hotline volunteers and 5 committee leaders



2 volunteers on duty each day



Average 4 calls per day



Each inbound = 4 outbound calls (avg)

# Project Wingman Support Overview

- That First Contact
- Triage and Refer
- Support and Follow Up



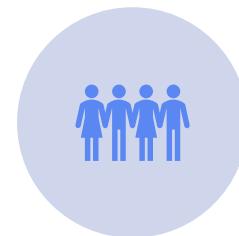
# Project Wingman Support Overview



**GREAT COMPANY  
SUPPORT**



**JOINT MARKETING  
CAMPAIGNS**



**VOLUNTEER  
DEDICATION**



**EXTERNAL  
EXPERTISE**



**INTERNAL  
RESOURCES**

# The Journey Ahead: Wingman is a Project

Continued de-stigmatization of pilot mental health

Financial Commitment

Volunteer professional development and certification

Continuous improvement of protocols and procedures

# Pilot Mental Fitness: Advancing Safety & Human Performance with peer-support systems



Captain Rondeau Flynn  
Aeromedical Chairman

# Aeromedical Committee 200+ Professional Pilots Aeromedical Department, Medical Professionals (RN's, MD's, PhD. Psy D, LICSW)

- Aeromedical National & CAPA- (Research to Operations to Research)
- Project Wingman-Severe Crisis/Severe Stress
- HIMS-Addiction/Recovery
- CIRP-PTSD Prevention
- POH-Occupational Health/Technical
- DPASC-Long-Term Disability
- SGRP-Sudden Grief/Bereavement
- Aeromedical Medical Advisors-FAA Certification



# Promoting Aviation Safety

## Allied Pilots Association



 United States Department of Transportation



Federal Aviation  
Administration

A photograph of an airplane on a runway, viewed from the side/rear. A large jet engine is prominent in the foreground. A dark rectangular overlay contains the text.

Providing the Safest, Most Efficient  
Aerospace System in the World.

June 2025

# FAA Medical Recertification

## **Grand Rounds and Other Items**

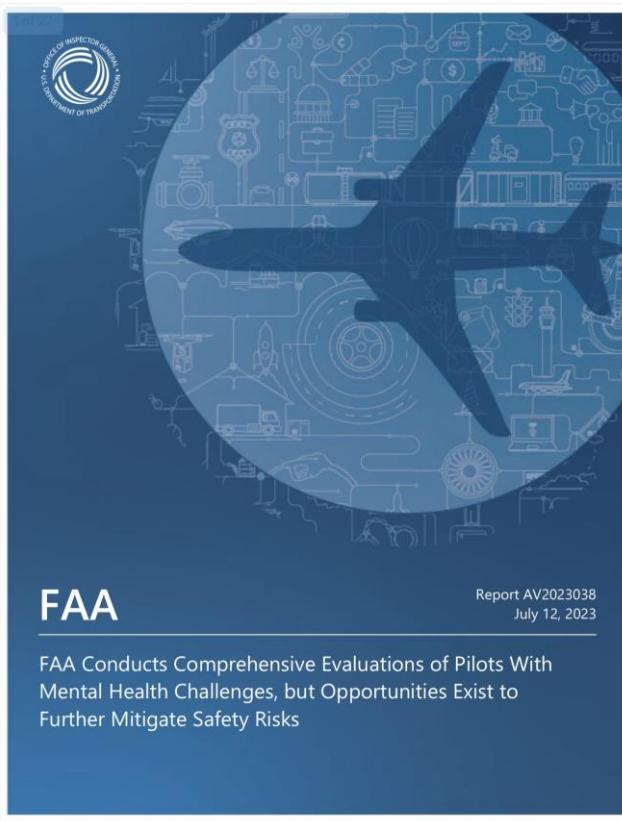
***By Susan Northrup, MD, MPH***

***FAA Federal Air Surgeon***

**“I have three major lines of effort for the next year. They are **Education, Early Intervention, and Evolution of Standards**. You will see them resonating throughout my messaging in the coming year.**

**We are actively taking steps to move to the medical certification process of the future going to **science-based approaches** using Safety Management System techniques.”**

# APA Aeromedical Task Force Designing Pathways for reducing stigma and enhancing pilot/peer support



Report AV2023038  
July 12, 2023

**FAA**

FAA Conducts Comprehensive Evaluations of Pilots With Mental Health Challenges, but Opportunities Exist to Further Mitigate Safety Risks

U.S. DEPARTMENT OF TRANSPORTATION  
OFFICE OF INSPECTOR GENERAL



U.S. Department of Transportation  
Office of Inspector General

**Highlights**

FAA Conducts Comprehensive Evaluations of Pilots With Mental Health Challenges, but Opportunities Exist to Further Mitigate Safety Risks

Requested by Senator Dianne Feinstein  
Federal Aviation Administration | AV2023038 | July 12, 2023

**What We Looked At**  
On March 24, 2015, Germanwings Flight 9525 crashed in the Alps, killing all 150 people on board. The crash was due to deliberate actions by the copilot. According to the final accident report, the copilot started to suffer from severe depression in 2008. In July 2009, and each year thereafter, the aeromedical center continued to renew the copilot's medical certificate. On March 10, 2015, a private physician recommended the copilot receive psychiatric hospital treatment due to a possible psychosis, but aviation authority was informed. Concerned with issues regarding the impact of pilot mental health on passenger safety, Senator Dianne Feinstein requested that we review procedures and methods the Federal Aviation Administration (FAA) employs to evaluate the psychological health of airline pilots. Our objectives were to assess FAA's procedures for (1) evaluating the psychological health of airline pilots and (2) mitigating potential threats to aviation safety from pilots with psychological health issues.

**What We Found**  
FAA has comprehensive procedures to evaluate pilots' psychological health, which include a framework of policies, guidelines, and collaboration with airlines. FAA's adherence to the procedures resulted in an extensive and structured process to evaluate pilots' psychological health—a key component to help mitigate potential safety risks. However, FAA's ability to mitigate safety risks is limited by pilots' reluctance to disclose mental health conditions. According to FAA and aviation industry organization officials, primary factors that discourage pilots from reporting their mental health conditions are the stigma associated with mental health, potential impact on their careers, and fear of financial hardship. Addressing these barriers is critical for FAA to mitigate potential aviation safety risks.

**Our Recommendations**  
FAA concurred with our two recommendations to address FAA's need to encourage pilots with mental health issues to disclose and seek treatment for their conditions. We consider the recommendations resolved but open pending completion of planned actions.

All OIG audit reports are available on our website at [www.oig.dot.gov](http://www.oig.dot.gov).  
For inquiries about this report, please contact our Office of Government and Public Affairs at (202) 366-8751.



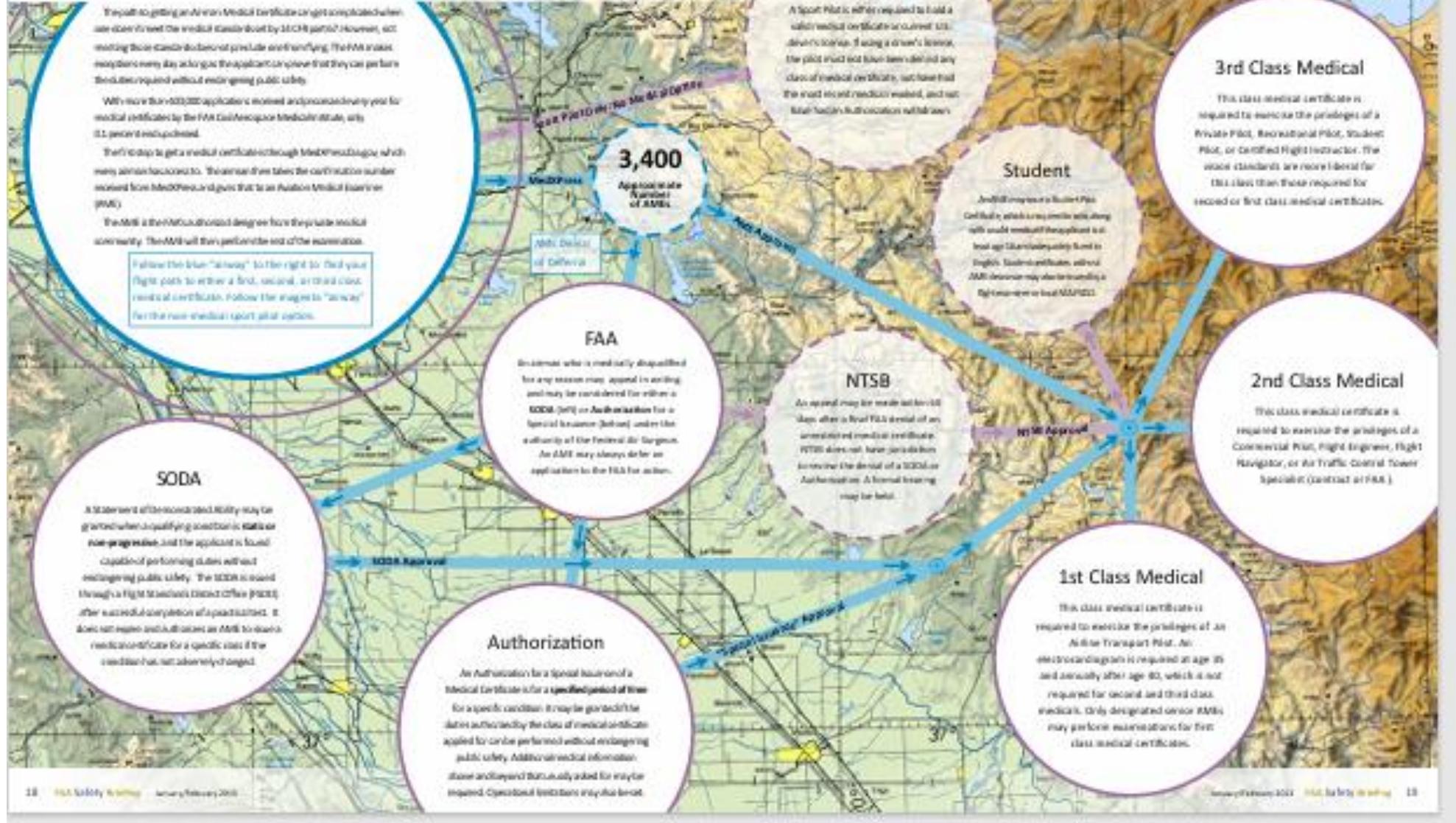
**2023-2024 APA-Aeromedical Task Force (ATF)**  
Pilot Mental Health: Designing pathways for reducing stigma and enhancing pilot peer/professional support. A focus group approach.  
First Officer Rondeau Flynn  
Chairman-APA Aeromedical Committee





PAUL CAMPBELL

# Navigating the Medical Flight Path



# Mental Health in America

## (Mental illness, Mental Health, Pilot Mental Fitness)



### How common are mental illnesses?

Mental illnesses are among the most common health conditions in the United States.

- More than 1 in 5 US adults live with a mental illness.
- Over 1 in 5 youth (ages 13-18) either currently or at some point during their life, have had a seriously debilitating mental illness.<sup>5</sup>
- About 1 in 25 U.S. adults lives with a serious mental illness, such as schizophrenia, bipolar disorder, or major depression.<sup>6</sup>



### Statistics related to mental health disorders

The following are the latest statistics available from the National Institute of Mental Health Disorders, part of the National Institutes of Health:

- Mental health disorders account for several of the top causes of disability in established market economies, such as the U.S., worldwide, and include: major depression (also called clinical depression), manic depression (also called bipolar disorder), schizophrenia, and obsessive-compulsive disorder.
- An estimated 26% of Americans ages 18 and older -- about 1 in 4 adults -- suffers from a diagnosable mental disorder in a given year.
- Many people suffer from more than one mental disorder at a given time. In particular, depressive illnesses tend to co-occur with substance use and anxiety disorders.
- Approximately 9.5% of American adults ages 18 and over, will suffer from a depressive illness (major depression, bipolar disorder, or dysthymia) each year.

# ***Emphasizing pilot health and safety can enhance profitability within the aviation industry.....***

## **Health in the Skies: A Narrative Review of the Issues Faced by Commercial Airline Pilots**

Monitoring Editor: Alexander Muacevic and John R Adler

Piercarlo Minoretti<sup>1</sup> and Enzo Emanuele<sup>✉2</sup>

### **Abstract**

[Go to: ▶](#)

While the health of airline pilots is crucial to ensuring the safe travel of millions of people worldwide, they remain vulnerable to a variety of health challenges due to the nature of their job.

Emphasizing pilot health and safety can enhance profitability within the aviation industry by minimizing expenses related to absenteeism, employee turnover, and accidents. Nevertheless, the examined evidence reveals that pilots continue to face numerous health-related obstacles. Consequently, it is essential for airline pilots to focus on their well-being and proactively address these potential concerns. Airlines can proactively enhance the health and safety of their pilots by

# APA-Pilot Occupational Health

## Research methodology and Pilot support

## Defining Elements of Total Worker Health

**Defining Element 1: Demonstrate leadership commitment to worker safety and health at all levels of the organization**

### Fundamentals of Total Worker Health® Approaches

Essential Elements for Advancing Worker Safety, Health, and Well-Being



NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) > TOTAL WORKER HEALTH

### About the *Total Worker Health*® Approach

#### KEY POINTS

- *Total Worker Health* is defined as policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness-prevention efforts to advance worker well-being.
- The *Total Worker Health* approach prioritizes a hazard-free work environment for all workers.



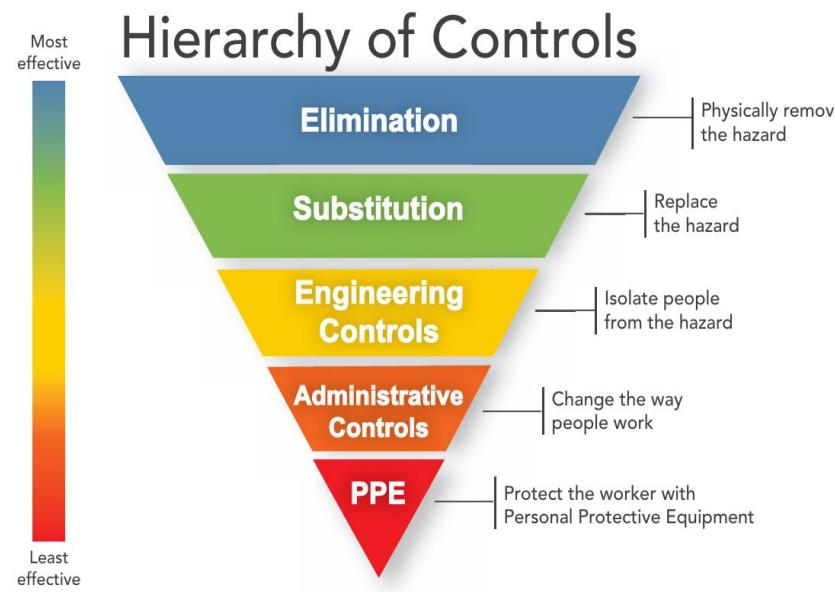
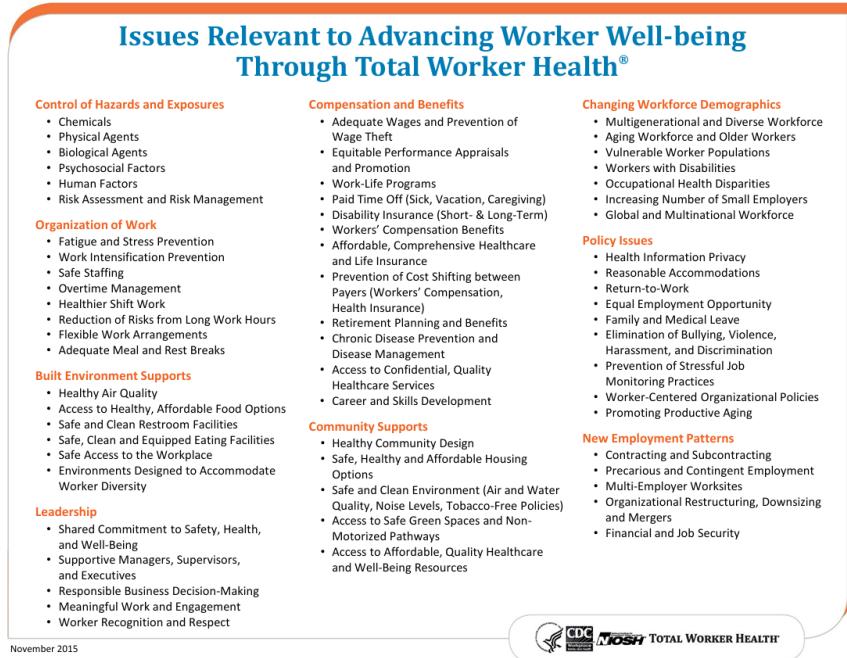


Figure 1. Hierarchy of Controls [NIOSH 2015]

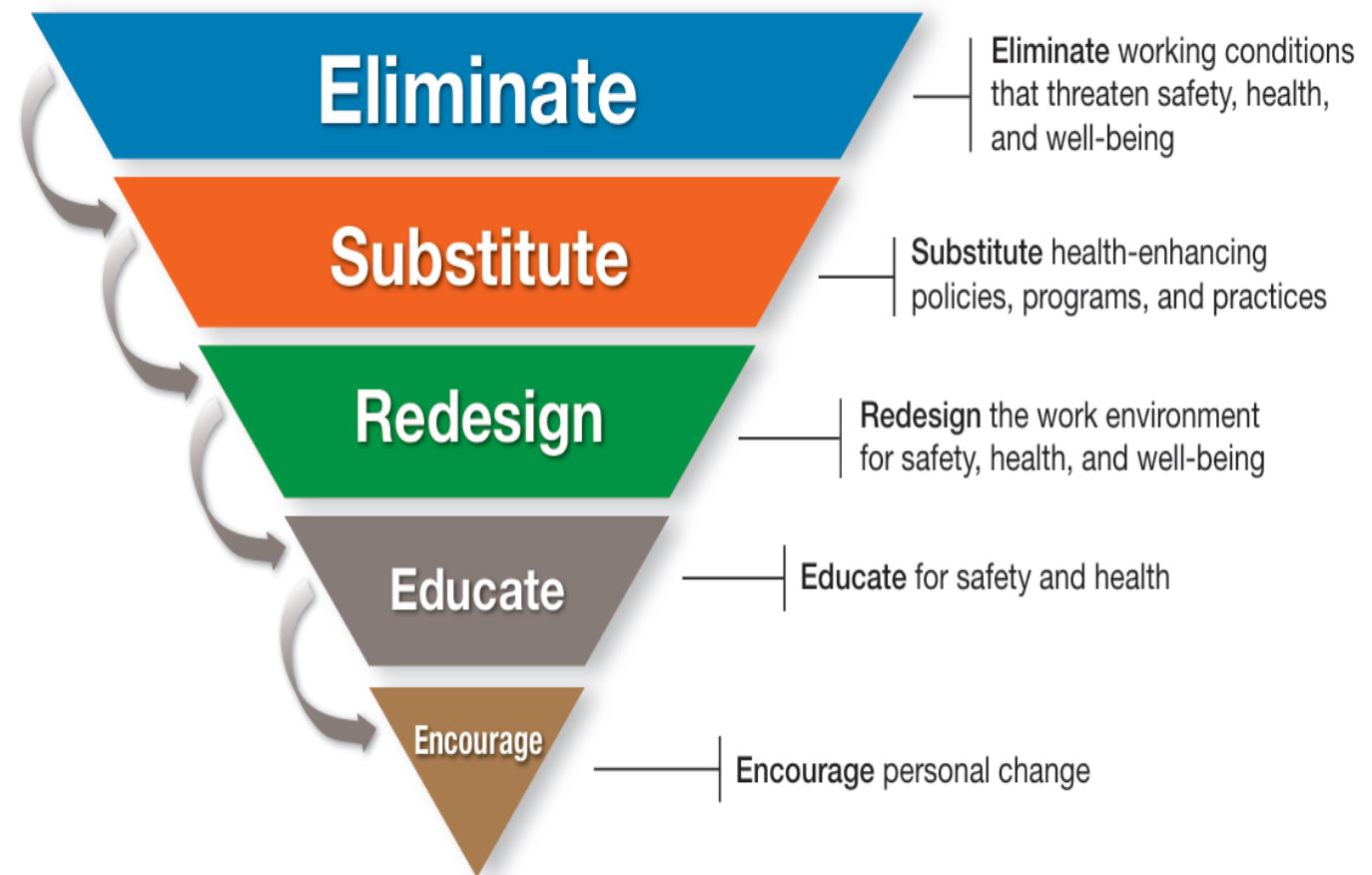


Figure 2. Hierarchy of Controls Applied to NIOSH Total Worker Health®



# Bow-Tie Risk Analysis & FAA Data

## Outcomes for Health and Human Performance

### Safety Risk Management

#### Bowtie Risk Modeling

This report is structured using an SRM paradigm. In particular, we implement bowtie modeling to depict the interaction between elements associated with risk analysis.<sup>5</sup> Figure 1 shows a conceptual bowtie model. Central to the model is the *hazard*—a condition or activity in or around the system that can cause damage. A *top event* is when control over the hazard is lost. *Threats* advance towards top events unless blocked by preventive barriers. Similarly, top events progress towards undesired *consequences* unless prevented by recovery barriers.

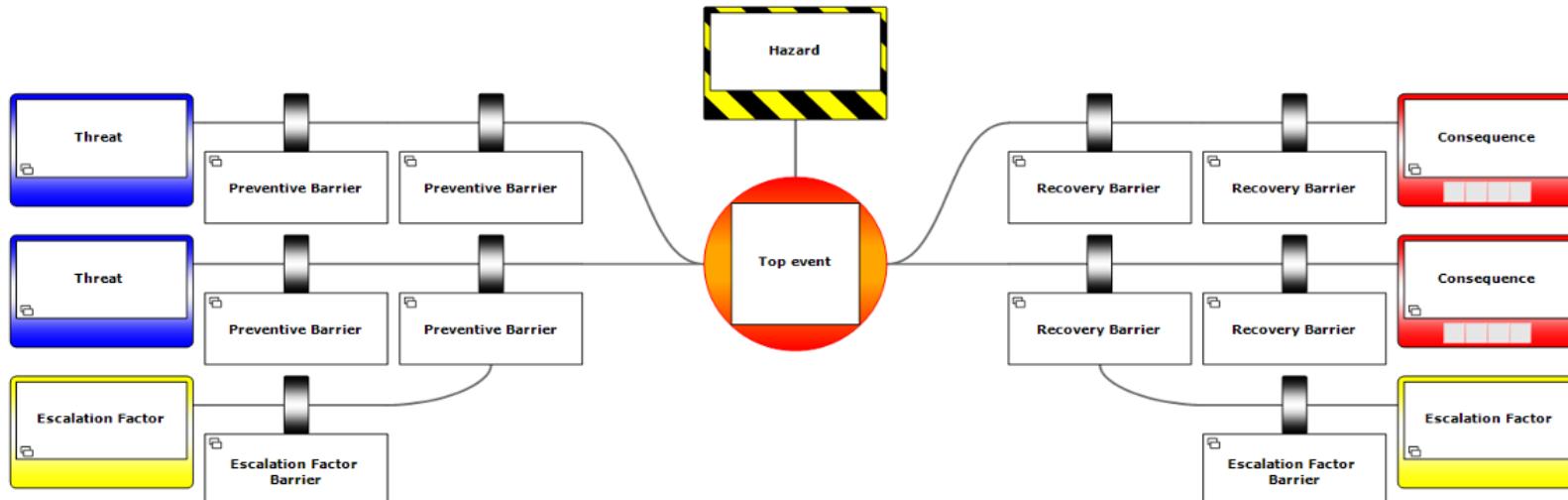
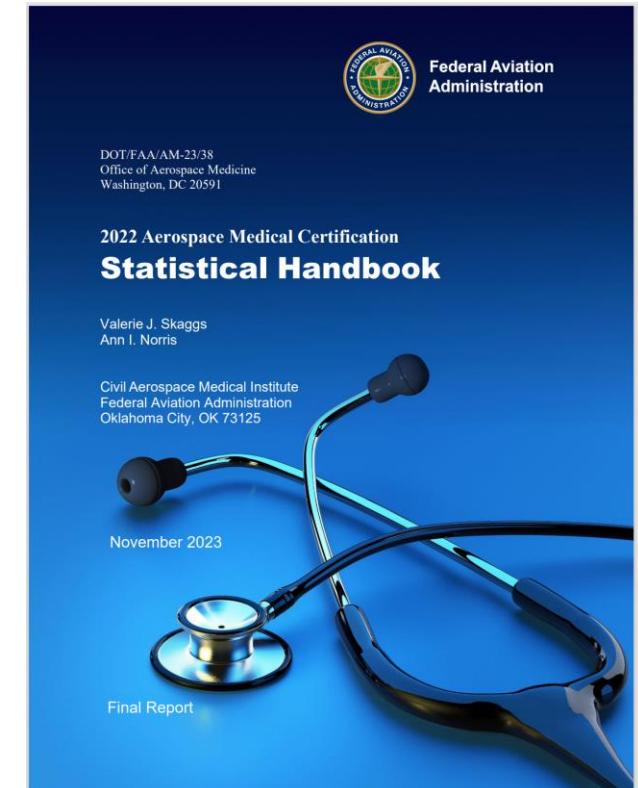


Figure 1. Bowtie Model



# High Performers choose “Project Wingman”



## FOR THE SHOE

verizon



NEWS VIDEO AUDIO PHOTOS TEAM SCHEDULE KICKING THE STIGMA ...

Q TICKETS APP WATCH PRO SHOP LIVE NFL GAMES

Community Home Kicking The Stigma Gameday Programs Grants & Awards Events & Programs Donations & Appearances Football Developmen

## Kicking The Stigma

In 2020, the Indianapolis Colts and the Jim Irsay family launched Kicking The Stigma, an initiative to raise awareness about mental health and remove the stigma often associated with mental health disorders.

Kicking The Stigma's focus is two-fold: Raising awareness about the prevalence of mental health disorders in our communities and raising and distributing funds to nonprofits and other organizations to expand treatment and research in Indiana and beyond.

DONATE NOW



RESOURCES



IMPACT REPORT



DONATE

frontiers

About us

All journals

All articles

Submit your research

## An Evidence-Informed Framework to Promote Mental Wellbeing in Elite Sport

Events Awards Connect Network Foundation Press Join Us About Us



# Occupational Exposure and Pilot Health

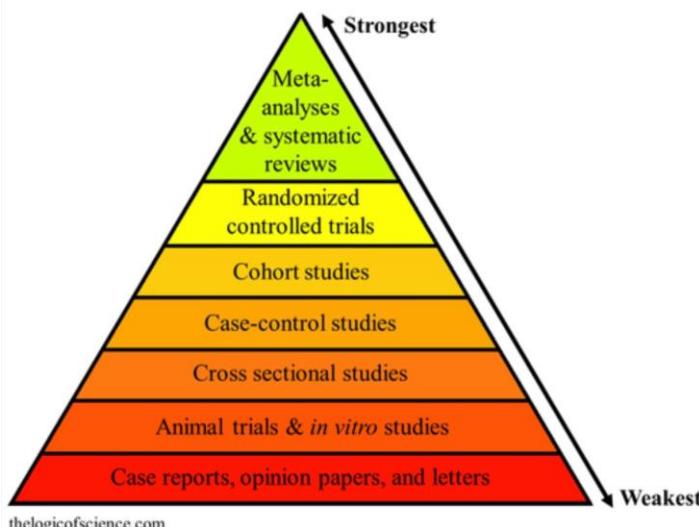
## JAMA Dermatology

### Original Investigation

## The Risk of Melanoma in Airline Pilots and Cabin Crew A Meta-analysis

Martina Sanlorenzo, MD; Mackenzie R. Wehner, MPhil; Eleni Linos, MD, DrPH; John Kornak, PhD; Wolfgang Kainz, PhD; Christian Posch, MD; Igor Vujic, MD; Katia Johnston, BS; Deborah Gho, BS; Gabriela Monico, BS; James T. McGrath, EE; Simona Osella-Abate, PhD; Pietro Quaglino, MD; James E. Cleaver, PhD; Susana Ortiz-Urda, MD, PhD

#### Hierarchy of Scientific Evidence



#### Conclusions

The results of our meta-analysis indicate that pilots and cabin crew have increased incidence of melanoma compared with the general population. This has important implications for occupational health and protection of this population.



## NAIRAS Ionizing Radiation Environment Model

Christopher J. Mertens<sup>1</sup>, Guillaume Gronoff<sup>1</sup>, Yihua Zheng<sup>2</sup>, Maksym Petrenko<sup>2</sup>, Daniel Phoenix<sup>1</sup>, Janessa Buhler<sup>2</sup>, Emily Willis<sup>4</sup>, Insoo Jun<sup>5</sup>, and Joseph Minow<sup>4</sup>

<sup>1</sup>NASA Langley Research Center, Hampton, VA, USA

<sup>2</sup>NASA Goddard Space Flight Center, Greenbelt, MD, USA

<sup>3</sup>NASA Kennedy Space Center, Merritt Island, FL, USA

<sup>4</sup>NASA Marshall Space Flight Center, Huntsville, AL, USA

<sup>5</sup>Jet Propulsion Laboratory, Pasadena, CA, USA



- Nowcast of Aerospace Ionizing RAdiation System (NAIRAS) Model
  - Running in real-time on NASA computer cluster since 2011, aviation radiation results hosted publicly on Space Environment Technologies server/website
  - Running in real-time at Community Coordinated Modeling Center (CCMC) since 2020
- Key (Vintage) Model Features**
  - Physics-based HZETRN (High Charge (Z) and Energy TRAnsport) code
  - Real-time inclusion of solar energetic particle (SEP) radiation
  - Real-time solar-magnetospheric effects on radiation (cutoff model by Kress *et al.* [2004, 2010])
- New/Current Model Developments**
  - Extend from atmosphere to space environment, now including trapped protons (TRP)
  - SEP heavy-ions (Z=2-92, A=4-238) added
  - Single-Event Effects (SEE) radiation risk assessment quantities added
  - Run-on-Request (RoR) @ CCMC



Based on CISIM-Dartmouth model with TS05 magnetospheric B-field (Kress *et al.*, 2010)

Added multiple magnetospheric B-field selection capability

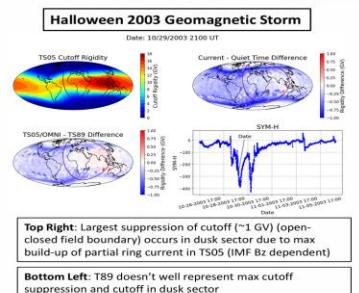
- TS05 → parameterized by solar wind quantities, interplanetary magnetic field (IMF), SYM-H/Dst, and other derivative solar wind quantities
- T89 → parameterized by the planetary K-index (Kp)

The TS05 better represents magnetospheric responses to interplanetary disturbances
 

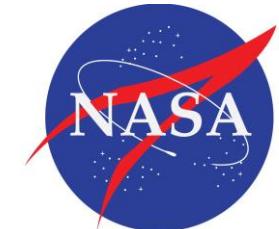
- but real-time solar wind parameters available from ACE/DSCOVR 1995+

Benefits of T89 option

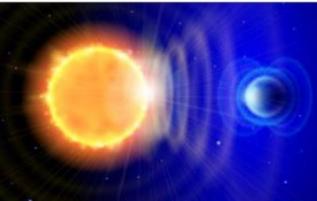
- NAIRAS can simulate any historical solar-geomagnetic storm event
- Extend/enhance validation capabilities
- Provide initial step in forecasting cutoff via Kp-parameter forecast



Federal Aviation  
Administration



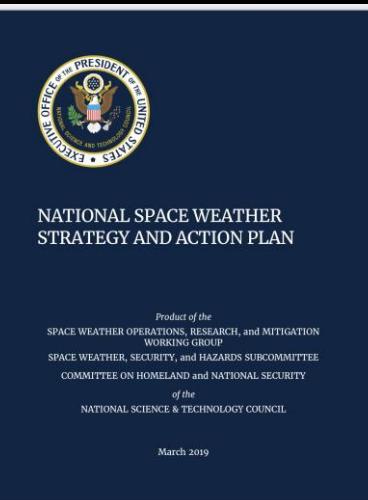
U.S. National  
Science  
Foundation



# SWORM

Space Weather Operations, Research and Mitigation Subcommittee

## Space Weather Advisory Group (SWAG)



NATIONAL SPACE WEATHER  
STRATEGY AND ACTION PLAN

Product of the  
SPACE WEATHER OPERATIONS, RESEARCH, and MITIGATION  
WORKING GROUP  
SPACE WEATHER, SECURITY, and HAZARDS SUBCOMMITTEE  
COMMITTEE ON HOMELAND and NATIONAL SECURITY  
of the  
NATIONAL SCIENCE & TECHNOLOGY COUNCIL

March 2019

# Pre-Flight Communications

## Preparing for an S3/S4 Storm

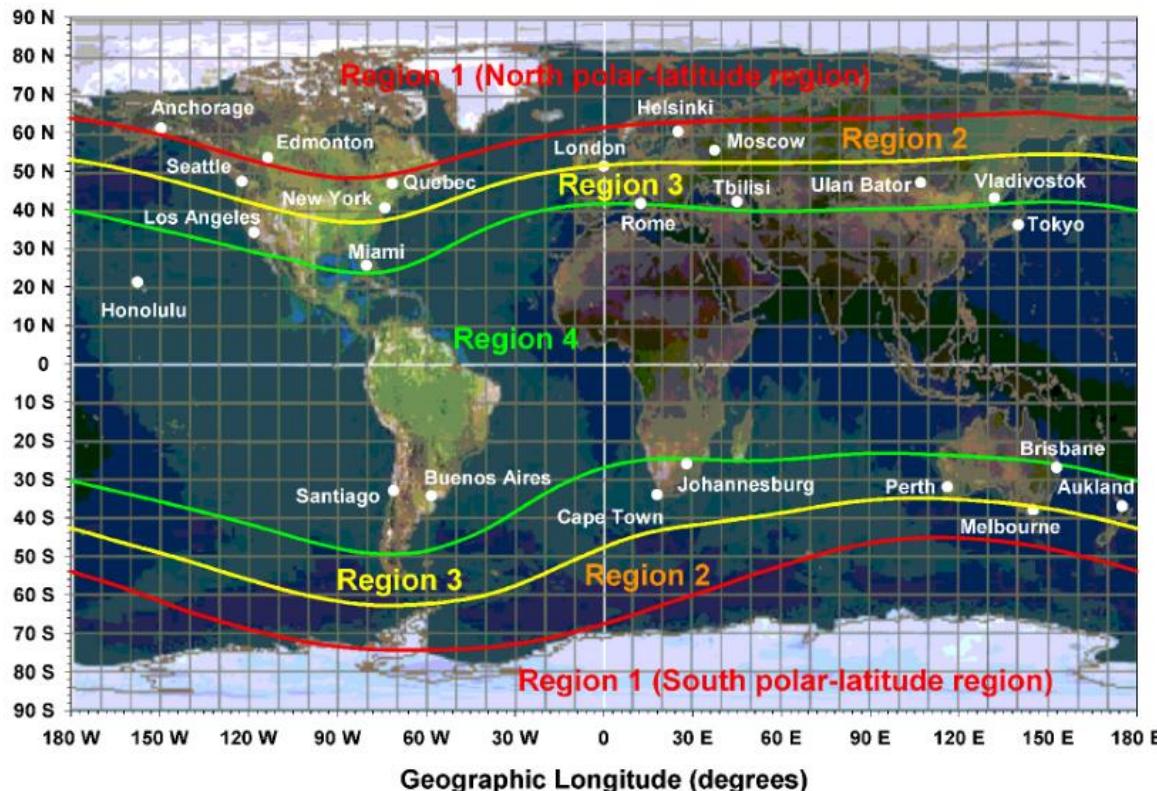
Radiobiology Research Team



Federal Aviation  
Administration

## FAA Solar Radiation Alert System (APA-SRA Alert System)

Geographic Latitude (degrees)



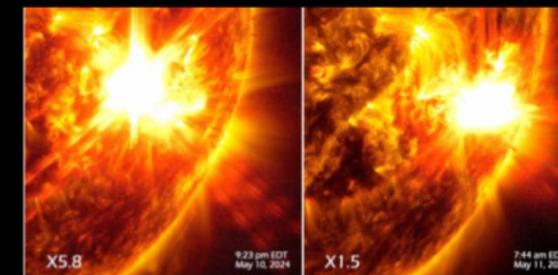
### X-CLASS FLARES CONTINUE TO OCCUR



X-class Flares Continue to Occur

WHAT: Sunspot Region 3664 Remains Active

Updated  
2024-May-11  
9:30 a.m. EDT



NASA's Solar Dynamics Observatory (SDO) captured images of the two solar flares on May 10 and May 11, 2024. The image shows a subset of extreme ultraviolet light that highlights the extremely hot material in flares created from a mixture of SDO's AIA 193, 171 and 131 channels. Credit: NASA/SDO

NOAA Sunspot Region 3664 remains quite active and produced two more X-class flares in the past 12 hours.

This sunspot cluster has been responsible for much of the geomagnetic storming and associated events over the past few days.

Solar flares are powerful bursts of energy that can impact radio communications, power grids, and navigation signals.



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

Safeguarding Society with Actionable Space Weather Information

Space Weather Prediction Center;  
Boulder, CO

# Pilots Supporting Pilots (Level 1 & Level 2)

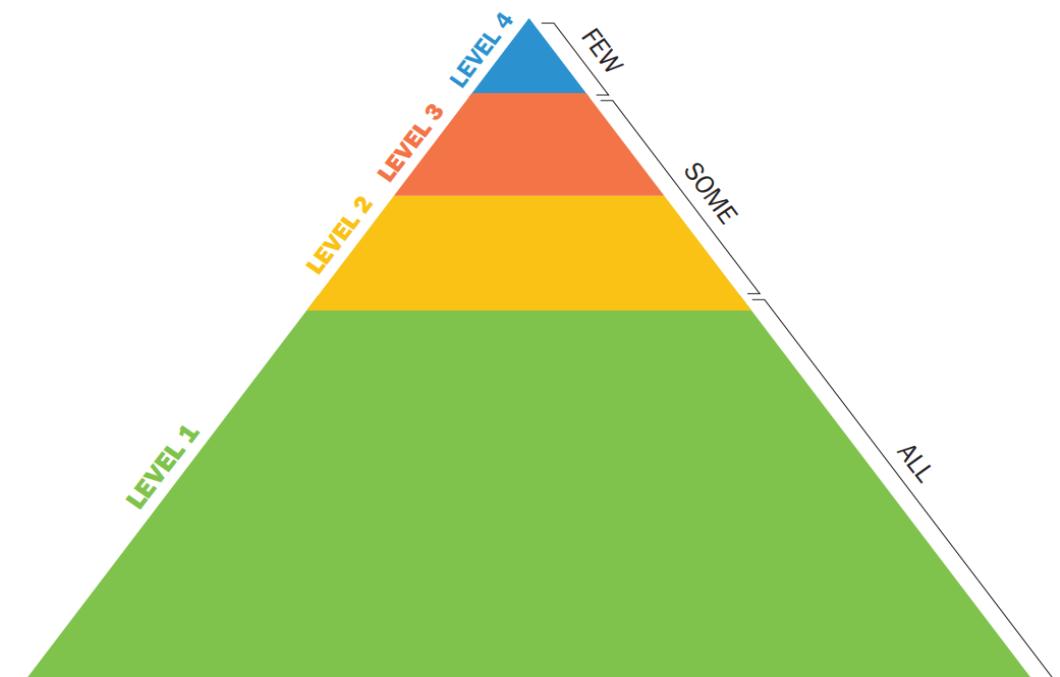
- The framework is based on a pyramid model which suggests that ALL people who experience a bereavement have some level of NEED, such as **the need for compassion and acknowledgement of the death (LEVEL 1)**.
- SOME need additional support which is outside their natural network, such as **peer-to-peer support (LEVEL 2)**.
- SOME require more intensive support, such as counselling (LEVEL 3)
- A FEW require support from a specialist therapeutic service (LEVEL 4).



**Adult  
Bereavement Care  
Pyramid**  
A national framework

Developed by  
 The Irish  
Hospice  
Foundation

A national collaborative  
project 2020



# APA-Aeromedical Recommended Reading List

## Precision Medicine & Human Performance

January February March April May June

Welcome to the APA Aeromedical Committee Recommended Reading List! Each month we will be listing a recommended book based on an APA Aeromedical Committee/Subcommittee volunteer's choice, or from an APA member. Each book will highlight an Aeromedical-centric theme that has helped in the prevention, treatment, or recovery from an injury, illness, or has elevated our members' education. Most Aeromedical book recommendations can be either read or listened to via various audible apps. Feel free to send your Aeromedical-centric book recommendations to [cmte-aeromed@alliedpilots.org](mailto:cmte-aeromed@alliedpilots.org)

**Disclaimer:** This APA Aeromedical Committee Book Club is for general informational purposes only, and does not constitute the practice of medicine or other professional health care services, including the giving of medical advice. The use of this information and the material within this book club is at the user's own risk. The content within the book recommendations are not intended to be substitute for professional medical advice or treatment. Always consult with your medical provider when making health care decisions.

Why We Sleep: UNLOCKING THE POWER OF SLEEP AND DREAMS by Matthew Walker, PhD

The End of Alzheimer's Program: THE FIRST PROTOCOL TO Enhance Cognition and Reverse Decline AT ANY AGE by DALE E. BREDESEN, MD

Lifespan: Why We Age—and Why We Don't Have To by David A. Sinclair, PhD, with Marloes D. LaPlante

Brain Energy: A Revolutionary Breakthrough in Understanding Mental Health—and Improving Treatment for Anxiety, Depression, OCD, PTSD, and More by Christopher M. Palmer, MD

DIRTY GENES: A Breakthrough Program to TREAT THE ROOT CAUSE OF ILLNESS and OPTIMIZE YOUR HEALTH by DR. BEN LYNCH

CHANGE YOUR DIET: A POWERFUL PLAN TO IMPROVE MOOD, OVERCOME ANXIETY, AND PROTECT MEMORY FOR A LIFETIME OF OPTIMAL MENTAL HEALTH by GEORGIA EDE, MD

CHANGE YOUR MIND: CHANGING YOUR BRAIN TO OVERCOME ANXIETY, DEPRESSION, AND ADDICTION by GEORGIA EDE, MD

**“American 605, Cleared to land Runway  
17 Center”**



Thank you from the Allied Pilots Association

